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World-Building as Multisensory Resonance: A Comparative Analysis of Immersive perception in *Blade Runner* and *Blade Runner 2049*

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ABSTRACT

The concept of world-building has been extensively examined in narrative-driven domains such as speculative fiction, films, games, transmedia stories, and virtual spaces. Yet most studies have focused on narrative coherence and symbolic interpretation while overlooking sensory and embodied dimensions. This study addresses how six visual elements, cinematography, art direction, production design, mise-en-scene, set design, and costuming, contribute to world-building in *Blade Runner* (1982) and *Blade Runner 2049* (2017), and how these elements, in interaction with sound, generate immersive perception through sensory resonance.

The research pursues four objectives: (1) to apply a layered perceptual framework to analyse world-building in the two films; (2) to examine how the six visual elements construct immersive cinematic experience across different layers; (3) to explore how visual and aural elements interact through cultural echo, spatial dynamics, and affective atmosphere; and (4) to validate the perceptual resonance loop as the core mechanism sustaining immersion.

A qualitative comparative case study approach was employed, drawing on visual grammar and multimodal analysis (Kress & van Leeuwen, 2001) alongside theories of affect (Deleuze & Guattari, 1987), embodiment (Sobchack, 1992), haptic visuality (Marks, 2000), and sound (Chion, 1994 & Barthes, 1977). A macro–meso–micro framework, supplemented by a perceptual rhythm layer, was developed to examine how visual and auditory design engage viewers.

The findings indicate that the six visual elements collaborate across three layers of world-building: the macro layer establishes the foundations of the world, the meso layer structures social order, and the micro layer shapes affective experience. Immersion emerges through multisensory resonance between audiovisual elements and bodily perception, unfolding across the dimensions of cultural echo, spatial dynamics, and affective atmosphere. *Blade Runner* relies on strategies of sensory

overflow to generate an immersive experience of oppressive melancholy, while *Blade Runner 2049* employs strategies of sensory restraint to create a cold and nihilistic atmosphere. Furthermore, the perceptual resonance loop models immersion as a dynamic process shaped by the interaction of detail density and consciousness reception rate.

These findings suggest that cinematic immersion is not an outcome of semantic decoding but of perceptual structure. The study contributes to film studies, media aesthetics, and immersive design by showing how non-interactive cinema produces embodied and multisensory experiences.

Keywords: World-Building, Immersion, Multisensory Resonance, Blade Runner, Blade Runner 2049, Affective Cinema

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ATTESTATION OF AUTHORSHIP

"I hereby declare that this thesis is my own work and has not been submitted, either in the same or different form, to this or any other institution for any academic award. All sources used and quotations made have been properly acknowledged."

Zhuxi Li

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CHAPTER 1. INTRODUCTION

1.1 Background and Research Gap

With the continued rise and evolution of cyberpunk in contemporary culture, world-building elements have become an important focus of interdisciplinary research into the core features of the genre. In terms of screen adaptations, from Ridley Scott's *Blade Runner* (1982), which established the foundations of its visual aesthetics, to Katsuhiro Otomo's *Akira* (1988) and Mamoru Oshii's *Ghost in the Shell* (1995), which deepened its philosophical reflections, and later to Denis Villeneuve's *Blade Runner 2049* (2017) and Netflix's *Cyberpunk: Edgerunners* (2022), which extended its influence, the genre has sustained global attention. Defined by dystopian settings, the tension of high technology and low life, and ongoing ethical reflections on the essence of human existence, cyberpunk continues to attract audiences worldwide and stimulate broad cultural debate.

The commercial and artistic success of these works is striking. In the third quarter of 2022, the release of the anime *Cyberpunk: Edgerunners* generated 49 million hours of viewing time on Netflix and led to a sharp increase in the player base of the original game Cyberpunk 2077 (Netflix, 2022). Despite Blade Runner 2049 grossing a disappointing 259 million dollars worldwide during its original release against the estimated 400 million necessary for it to break even (IMDb, n.d.), the film garnered wide recognition at the 90th Academy Awards, winning Best Cinematography and Best Visual Effects and earning nominations for Best Production Design, Best Sound Editing, and Best Sound Mixing (Academy of Motion Picture Arts and Sciences, 2018). These achievements confirm the lasting cultural power and artistic currency of cyberpunk. More importantly, they suggest that the strength of these works lies in their world-building, achieved through coherent internal logic and layered sensory design that draws audiences into immersive experiences.

The concept of world-building first emerged in literary studies, especially within speculative fiction such as science fiction and fantasy, where it developed into a systematic framework. According to Zaidi (2017), world-building is the creation of an imagined world that includes all the contextual elements in which the characters exist and act. In other words, it is "the creation of imaginary worlds with coherent geographic, social, cultural, and other features" (von Stackelberg & McDowell, 2015, p. 25). This process requires the creator not only to design the physical environment but also to construct social structures, historical contexts, cultural practices, and even physical laws so that the fictional world forms a coherent narrative ecosystem.

With the growth of transmedia, the practice of world-building has moved far beyond the field of literature and now shapes films, video games, and other hybrid forms of entertainment art. According to Jenkins (2006, as cited in Wolf, 2012), the theory of transmedia storytelling emphasizes that a narrative expands across multiple media, with each platform contributing a unique and essential part to the overall storyworld. In this context, a successful fictional world, such as Tolkien's Middle-earth or the wizarding world of *Harry Potter*, functions as more than a backdrop for events. It becomes a meaningful object of experience in itself. Through careful design of spatial layout, visual style, soundscape, and the evocation of material cultures, the world invites the audience into immersion, encourages exploration, and generates emotional resonance. Studying how worlds are built is therefore not only about interpreting individual works. It provides a key to understanding how contemporary novels, films, and games tell stories and why audiences are so deeply drawn to them.

Although the theoretical importance of world-building is widely recognized and has become a growing focus of interdisciplinary research, a clear gap appears when we look at critical practice, especially in studies of the cyberpunk landmarks *Blade Runner* (1982) and its sequel *Blade Runner 2049* (2017). Most academic discussions continue to concentrate on conventional dimensions such as narrative coherence, symbolic decoding, and ideological critique. These studies often rely on textual

analysis and focus on how the films reflect or critique social realities. For example, Flisfeder's (2018) study of *Blade Runner 2049* is insightful but remains centred on interpreting the film as an allegory of "capitalist realism." He interprets its spaces as metaphors for capitalist exploitation and its advertising signs as symbols of a "depressively hedonic" culture under capitalist realism. Similarly, Williams (1988), in *Ideology as Dystopia: An Interpretation of Blade Runner*, analyses ideological ambiguity, the boundaries between human and machine, and the alienation of gender and family relations. Yet his approach also belongs to the field of symbolic and ideological critique. Together these works show that existing scholarship pays more attention to what the world "stands for" than to how it is "built" side of the coin.

Within this traditional perspective, the film image is treated primarily as a vessel of meaning, valued for its semantic content. The role of the viewer is understood as decoding metaphors, symbols, and signs to uncover hidden themes. This representational paradigm has produced many important insights in film studies, but it has clear limits. It tends to overlook the fact that cinema is also a direct sensory and affective experience. It reduces complex audiovisual phenomena to codes waiting to be cracked or texts to be decoded. In doing so, it overlooks how film, through light, colour, texture, sound, and rhythm as non-semantic elements, acts directly on the viewer's sensory system and constructs a tangible and embodied world experience.

At the same time, another closely related concept, immersion, has become a central topic in new media studies, especially in fields such as virtual reality (VR) and augmented reality (AR) that rely heavily on interactivity. These studies have rightly highlighted the value of immersive experience, but most of them place interactivity and user participation at the centre of their arguments, Murray (1997), in *Hamlet on the Holodeck*, identifies participation and interactivity as defining features of digital environments and as the foundation of immersive digital narratives. She argues that computers differ from earlier media because they are not only procedural, producing rule-based behaviors, but also participatory, allowing users to induce and shape those

behaviors. Digital environments respond to input, creating a sense of dialogue and engagement that sustains immersion. This line of thought creates a blind spot: how do traditional linear films, which lack physical interactivity, succeed in producing forms of immersion that are equally strong and arguably at times even more immersive?

This blind spot, however, points to the continuing value of film theory itself. Sobchack's phenomenology of film (1992) has long shown that cinematic immersion is not a product of physical interactivity but of embodied communication, grounded in the viewer's bodily perception as the vehicle for a shared conscious expression. Viewers respond to light, colour, movement, and sound as non-semantic elements, triggering a physiological and neural synchronization that enables them to experience deep immersion in the film world without any external interactive devices. This mode of immersion, grounded in lived bodily experience, offers a supplementary way to understand the power of linear narrative cinema. It shows that the appeal of film lies not only in stories but in how it engages the body and senses, beyond the framework of interactivity.

In addition to visual design, sound has also been recognized as central to cinematic immersion. Chion (1994) proposed the ideas of synchresis and added value to explain how sound and image, when combined, generate meaning and affect beyond what either medium conveys alone. Barthes (1977) emphasized the *grain of the voice*, pointing to the sensory texture of sound that touches the body as well as communicates linguistically. Sobchack (1992) further highlighted that immersion emerges through the embodied reception of both visual and aural stimuli. However, despite these theoretical insights, studies of cyberpunk cinema have largely emphasized visual spectacle, leaving its complex soundscapes comparatively under-theorized.

Taken together, these perspectives point to the need for a methodological repositioning. This study adopts a methodological framework grounded in film philosophy, recognised as a sub-field of film and media studies. It approaches film not

only as a carrier of symbolic meaning but also as a sensory and affective medium capable of generating embodied experience.

This positioning helps define the scope of the research. Rather than attempting to construct a genre history, stylistic genealogy, or narratological model, the study focuses on how audiovisual configurations operate at the level of perception, with particular attention to affect and embodied spectatorship. In doing so, it examines how immersive realities are constructed.

1.2 Research Objectives and Questions

This study builds upon established narrative and symbolic approaches to world-building. It introduces a complementary perceptual framework that focuses on the core audiovisual elements of the films under consideration. The study does not seek to replace narrative analysis. Instead, it expands existing perspectives. It examines how these elements work together to construct an immersive perceptual world in traditional linear cinema. This remains possible even in the absence of interactive features. Narrative approaches remain central to world-building research, while this study offers an additional perceptual lens through which cinematic worlds may be understood. Rather than analysing narrative structures, this study shifts analytical attention toward the sensory conditions through which cinematic worlds are experienced.

Specifically, the research examines how cinematography, art direction, production design, mise-en-scene, set design, and costuming function in concert as the foundation of world-building in the cyberpunk classics *Blade Runner* and *Blade Runner 2049*. It further investigates how these visual elements combine with the auditory dimension, generating a deep and embodied immersive experience through sensory resonance. To achieve this, the study adopts a layered perceptual framework as an analytical tool to map the macro, meso, micro, and rhythmic layers of cinematic world-building. It also

proposes a multisensory resonance model to explain how visual and aural elements interact to produce immersion, and develops the concept of a perceptual resonance loop to reveal the dynamic process through which immersion is sustained.

The study pursues four specific objectives:

(1) To apply the layered perceptual framework, which integrates the macro, meso, micro, and rhythmic levels, in order to analyse world-building in the two *Blade Runner* films.

(2) To examine how the six visual elements, cinematography, art direction, production design, mise-en-scene, set design, and costuming, work together across these layers to construct an immersive cinematic experience.

(3) To explore how visual and aural elements interact through the three dimensions of cultural echo, spatial dynamics, and affective atmosphere, and to build and test the multisensory resonance model as a core pathway for generating immersion.

(4) To propose and demonstrate the concept of the perceptual resonance loop, and to establish it as the key mechanism that sustains immersion.

To achieve these objectives, the study proposes and seeks to address the following two core questions:

(1) How do cinematography, art direction, production design, mise-en-scene, set design, and costuming contribute to world-building in the cyberpunk films *Blade Runner* and *Blade Runner 2049*?

(2) in what ways do these visual elements along with the auditory dimension collectively generate immersive perception through sensory resonance?

1.3 Brief Overview of Methodology

To achieve the above objectives and address the research questions, this study adopts a qualitative case study approach. Methodologically, the study draws on Kress and van Leeuwen's (2001, 2006) visual grammar and multimodal analysis as tools to

analyse composition, spatial relations, and sensory interaction. Theoretically, the research is informed by several foundational ideas, including Deleuze's concept of the affection-image, Chion's notions of synchresis and added value, Barthes's grain of the voice, Marks's haptic visuality, and Sobchack's embodied experience. Building on these foundations, the study conceptualises immersion as a multisensory resonance field and develops a multisensory resonance model structured around cultural echo, spatial dynamics, and affective atmosphere. In addition, it introduces the concept of the perceptual resonance loop to help explain how immersion is sustained over time. The primary sources of data include close scene-by-scene 'readings' (viewings) of the films supported by academic literature. Through this design, the study aims to reveal the multisensory mechanisms by which immersion is generated and sustained in cyberpunk cinema and to provide new theoretical and methodological paths for the study of immersion in traditional linear film.

1.4 Significance and Contributions of the study

This study makes a primarily theoretical contribution to film and media studies by introducing the concept of the multisensory resonance field as an integrative framework for understanding cinematic immersion. Bringing together diverse theoretical perspectives, the framework shifts analytical attention from semantic decoding toward perceptual structures, emphasizing that immersion emerges through the dynamic interaction of visual, auditory, and embodied experience.

Building on this foundation, the study develops the multisensory resonance model and the perceptual resonance loop to articulate the processes through which traditional non-interactive films generate immersive experience. In doing so, it advances an understanding of cinematic worlds not merely as narrative constructs but as perceptual environments shaped by coordinated sensory cues.

The study further repositions the role of visual elements in film research by demonstrating that they function not as decorative supplements to narrative but as active mediators of sensory experience. Through the integration of the three world-building layers with a perceptual rhythm layer, the research proposes a structured conceptual framework for examining how immersive film worlds are constructed and sustained.

Beyond its core theoretical contributions, this study offers broader implications for film theory and analysis. Rather than providing practical guidance for filmmaking, the framework establishes a conceptual lens for understanding how sensory design and world-building strategies shape viewer engagement. By foregrounding perception and embodiment, the study complements narrative-centred approaches and supports a more comprehensive account of cinematic immersion, particularly in genres such as science fiction and fantasy where experiential coherence plays a defining role.

1.5 Thesis Structure

This thesis is structured into six chapters and aims to explore how visual and aural elements in cyberpunk cinema build worlds and create immersion through multisensory resonance.

Chapter One introduces the research background, identifies the gap in existing studies, and presents the research objectives, questions, and methodology.

Chapter Two reviews the literature on world-building, immersion, and sensory experience. It outlines key theories and identifies how this study contributes to ongoing debates.

Chapter Three explains the study design, justifies the case study approach, and introduces the analytical framework developed for this thesis.

Chapter Four presents the findings through a layered analysis of the two Blade Runner films, showing how six visual elements, together with sound, construct immersive worlds.

Chapter Five discusses the findings in relation to existing theories, expanding and refining them through the lens of sensory and affective analysis.

Chapter Six concludes the thesis by summarizing the contributions, outlining theoretical and practical implications, acknowledging limitations, and suggesting directions for future research.

In sum, this chapter has outlined the cultural and theoretical background of worldbuilding in cyberpunk cinema, immersion and sound, identified the gap in existing scholarship, and defined the central questions that guide this study. By situating world-building not only in visual design but also in its interaction with aural elements, this research proposes a multisensory resonance model that foregrounds the embodied basis of immersion in linear cinema. The following chapter reviews the existing literature on world-building, immersion, the auditory dimension, and sensory experience, in order to build the theoretical foundation for this study.

CHAPTER 2. LITERATURE REVIEW

This literature review is structured around two central research questions that guide the focus of this study. The first question is how six key visual elements, cinematography, art direction, production design, mise-en-scene, set design, and costuming, contribute to world-building in the cyberpunk films *Blade Runner* and *Blade Runner 2049*. The second question thus consider in what ways these visual elements along with the auditory dimension collectively generate immersive perception through sensory resonance. To answer such questions, the chapter examines first the theoretical concepts of world-building, focusing on definitions,

hierarchies, and the significance of six visual elements as world-building agents. It then considers theoretical perspectives on affect, sense perception, the auditory dimension, and embodiment, by engaging important contributions from Deleuze and Guattari, Chion, Marks, and Sobchack, among others. Through this integrative approach, the review not only synthesize relevant scholarship on cinematic world-building but also considers contemporary perspectives that frame immersion as an embodied, multi-sensory resonance phenomenon.

2.1 The Definition and Theory of World-Building

Before exploring theoretical models, it is essential to ask: why is world-building significant in cinema? A fictional world is not a decorative backdrop but a structural foundation for storytelling. A coherent world enables narrative engagement, emotional investment, and cognitive trust. Just as we experience reality through perceptual structures, a fictional world must also be structured to feel experientially real, or at least consistent and compelling.

World-building refers to the imaginative creation of coherent, immersive fictional environments. Once associated primarily with fantasy and science fiction, the concept now spans films, television, video games and transmedia stories (Wolf, 2012).

Marie-Laure Ryan conceptualises storyworlds as cognitive constructs generated through the reader's or viewer's mental modelling of narrative information (Ryan, 2014). From this perspective, storyworlds are not fully contained within texts but are dynamically actualised through readers' interpretive engagement, which organises spatial, temporal, and causal relations into a coherent experiential domain. This cognitive orientation reflects a broader shift in narratology, positioning world-building as a process that extends beyond textual representation toward the recipient's imaginative participation.

While Ryan foregrounds the cognitive processes through which storyworlds are actualised, other scholars shift attention toward the structural conditions that allow fictional worlds to achieve internal coherence and experiential credibility.Drawing on Tolkien's concept of "subcreation," Wolf explains that the making of a secondary world involves "creating under," recombining pre-existing concepts into an imaginary world built for reasons beyond merely serving as a backdrop for a story (Wolf, 2012). For Tolkien, successful subcreation enables "Secondary Belief": audiences enter the Secondary World and accept what is presented as "true" insofar as it accords with the world's laws. Importantly, Tolkien suggests that such belief relies upon the secondary world's completeness and consistency (as cited in Wolf, 2012).

Following this logic, effective world-building may be understood as requiring a high degree of coherence and internal consistency, allowing audiences to engage with fictional environments as experientially credible domains. This emphasis subtly redirects analytical attention from narrative events toward the structural integrity of the fictional world itself.

Extending world-building beyond textual and cognitive frameworks, Boni emphasises that contemporary media worlds are collectively built semiotic realms shaped by media convergence and the intertwining of industrial and fan practices. In this context, users function as "explorers" and "map-builders," contributing to the expansion of the world, while participatory culture and sharing activities may complement official marketing strategies (Boni, 2017). World-building thus becomes not only a narrative practice but also a dynamic media operation shaped by convergence and cross-platform circulation.

Moving into the specifically cinematic domain, Daniel Yacavone proposes the concept of the film world as a singular, holistic, and relational reality that integrates narrative representation with aesthetic expression (as cited in McGregor, 2014). Yacavone distinguishes between two dimensions of the film world. The *world-in* refers to the diegetic space of the narrative. The *world-of* refers to the film as a

multidimensional aesthetic object. Together, these dimensions suggest that cinematic worlds function on cognitive, sensory, and affective levels (as cited in McGregor, 2014).This emphasis on experiential engagement foregrounds the capacity of film worlds to generate forms of immersion that exceed purely semantic comprehension.

Taken together, these perspectives suggest that world-building can be understood as a multidimensional construct operating across cognitive modelling, structural design, industrial production, and aesthetic experience. Fictional worlds are not merely narrated but architecturally organised, collaboratively expanded, and sensorially encountered. Rather than functioning as narrative containers, fictional worlds may also be understood as experiential systems that invite audiences to inhabit alternative realities.

This expanded understanding provides a critical foundation for examining how cinematic environments generate immersion, not solely through narrative progression but through the orchestration of perceptual cues. In cinema, the world unfolds through spatial composition, lighting, soundscape, and material detail, forming a sensorial configuration that allows the fictional environment to feel lived-in even when it is entirely imagined.

Across media, the same storyworld may be accessed in different ways: film facilitates directed sensory experience, while games enable interactive exploration. These variations represent distinct modes of entry into fictional environments. Watching a film therefore becomes an immersive encounter in which viewers, grounded in real-world perceptual systems, are invited into an alternative experiential reality. The viewer's perceptual journey parallels that of the protagonists. Viewers move through space, interpret signs, and encounter emotional cues as the narrative unfolds. Through this process, the film world attains a sense of experiential credibility. This credibility is grounded not in factual accuracy but in symbolic and affective coherence.

Hemingway's well-known iceberg principle suggests that a writer may omit certain elements while still allowing readers to feel their presence, much like an iceberg whose mass largely remains beneath the surface (Hemingway, 1932). Cinematic worlds operate similarly, suggesting depths of structure beyond immediate representation and thereby engaging the viewer's imaginative and emotional investment.

Cinematic world-building is therefore not a one-sided display but a co-constructed activation. The fictional world exists only partially until it is perceived, interpreted, and imaginatively completed by the viewer. From this perspective, immersion may be understood as emerging not simply from narrative coherence but from the alignment between designed sensory structures and embodied perception.

2.1.1 The Hierarchy of World-Building

World-building is increasingly understood as a structural method for organizing narrative, meaning, and immersion across media. According to Breuleux, de Coninck, and Therrien (2019), it is "transauthor and transmedia by nature" (p. 1), serving as a conceptual framework for immersive storytelling practices. Scholars in diverse fields have developed layered models to study how imaginary worlds operate across several interconnected levels, such as physical, social, and symbolic. These hierarchical models expound how creators design intricate worlds. These worlds are cognitively credible, culturally resonant, and emotionally immersive.

Brandon Sanderson (as cited in Zaidi, 2017), a well-known speculative fiction writer, divides world-building into two major domains: physical settings (e.g., geography, climate, cosmology) and cultural settings (e.g., politics, religion, language, history). He further emphasizes the "iceberg metaphor," wherein only a small portion of the fictional world is made explicit, while the majority remains implied, allowing for

perceived depth and authenticity. Building on this, N. K. Jemisin approaches worldbuilding by developing two primary elements: the physical setting of the story and the people who inhabit it. She also emphasizes sociological coherence, arguing that immersive world-building must take into account societal variables such as gender roles, belief systems, and political structures alongside environmental detail (as cited in Zaidi, 2017). This view is reflected in Shariann Lewitt's (as cited in Zaidi, 2017) list of foundational world-building elements, which includes considerations such as population, government, resources, and economics that authors should explore. Orson Scott Card (as cited in Zaidi, 2017) outlines a five-step method: beginning with a core idea, establishing rules for the world, inventing its past (including evolutionary, historical, and biographical dimensions), considering language, and finally, developing the physical scenery. Zaidi (2017) synthesizes these approaches to propose a new model, "the seven foundations of world-building"， which includes "philosophical, political, economic, environmental, scientific and technological, social, and artistic" (p.44).

While these models foreground spatial and structural coherence, film, as a temporally guided medium, constructs experience not just through what it shows, but through how it flows. Thus, a layered model must attend not only to spatial and structural logic, but also to perceptual rhythm. As used in this study, perceptual rhythm builds on Deleuze's (1986, 1989) theorization of *affect* and does not refer simply to editing speed or montage pacing. Rather, it describes the way film organises visual, aural, and temporal elements to modulate the viewer's sensory and affective experience into a synchronized and flowing dynamic. This rhythm extends beyond the tempo of cuts, functioning instead as a perceptual-affective modulation that shapes immersion.

Thus, this study introduces a three-layer model for analyzing cinematic world-building in perceptual terms: the macro, meso, and micro layers. This triadic framework aligns with how viewers encounter film worlds. These worlds are nested structures that orient viewers spatially and culturally. They evoke affective resonance

and create an immersive experience.

The macro layer establishes the geopolitical, ecological, and cosmological conditions of the world. It includes city form, the operation of transportation systems, and the cinematic construction of vertical space that provide the spatial and epistemic scaffolding of the narrative. For example, in *Blade Runner*, the city's perpetual rain, verticality, and polluted atmosphere encode a world governed by decay, surveillance, and posthuman alienation. The meso layer concerns societal institutions and collective structures, including political hierarchies, economic flows, cultural rituals, and class systems. In cinema, these are represented through costume design, signage, architectural interiors, and interpersonal spatial relations. For example, in *Blade Runner*, the Tyrell corporation's towering ziggurat and pervasive advertising visualize political and economic control, while costume design distinguishes elite characters from marginalized populations. The micro layer is where intimacy and immersion converge: the design of individual spaces and affective environments. Their texture shape the emotional and psychological tone of the world. This layer reflects Deleuze's (1986) idea of the 'any-space-whatever', a space no longer defined by clear spatial or narrative markers. Instead, it becomes a place of pure potential, where affect and perception come forward on their own, apart from fixed actions or settings.

This structural triad offers a framework not only for analyzing how cinematic worlds are designed but for understanding how they are entered, inhabited, and believed. It underpins the analysis in Chapter 4, where six visual elements, cinematography, art direction, production design, mise-en-scene, set design, and costuming, will be examined across these three interwoven tiers.

2.1.2 The Six Visual Elements as World-Building Agents

If the macro–meso–micro framework provides the structural skeleton for cinematic world-building, then the six key visual elements, including cinematography, art direction, production design, mise-en-scene, set design, and costuming, can be understood as its vital organs. Rather than decorating the world, these elements function as sensory mediators. They transform narrative logic into perceptual rhythm and embodied resonance.

The following sections outline the different roles of each visual element, while emphasizing their effect on immersive experience.

Production design is concerned with constructing the world in which a film unfolds. This world is imagined, yet it often remains anchored in conditions that resemble reality (Tarkka， 2023). By shaping the environment surrounding the characters, production design supports the movement from abstract concept to perceptual experience. It allows viewers to encounter the narrative as something spatially and visually present rather than purely conceptual.

The creative work of production design is deeply connected to the visual field of cinema. It does not function alone, but operates alongside cinematography, lighting, performance, and editing. Within this collaborative structure, production design may include sets, props, and visual effects, and in some productions it also overlaps with costume and makeup practices (LoBrutto, 2002).

Because of this integrative role, production design contributes directly to the credibility of the filmic environment. Barnwell (2004) argues that the designer's primary task is to persuade the audience to accept what they see as believable. This responsibility continues even when filming takes place in real locations. Choices related to selection, arrangement, and spatial preparation remain essential to how the environment is perceived.

Taken together, these perspectives position production design as a foundational system rather than a form of background decoration. Instead, it operates as a material framework through which cinematic worlds gain coherence and experiential validity.This world-building capacity becomes particularly significant in speculative genres such as cyberpunk, where design choices often play a decisive role in representing power structures, technological histories, and ecological deterioration.

Given the wide scope of production design, a brief methodological clarification is required. In this thesis, production design is understood as a multi-scalar system that functions across the macro, meso, and micro layers of world-building. This interpretation aligns with the hierarchical organisation of the art department described by Bordwell and Thompson (1997), in which the production designer oversees art direction, set construction, decoration, and costume within a coordinated visual framework.

However, analysing production design as a single unit can obscure the different perceptual processes through which cinematic worlds take material form. Separating these elements therefore improves analytical precision. It allows this study to examine how expansive spatial imaginaries, localized environments, and embodied material details each shape immersive experience in distinct ways.

Within this production structure, art direction emerges as a key operational layer that articulates production design into a coherent visual strategy.Under the supervision of the production designer, the art director oversees the construction and visual preparation of the sets (Bordwell & Thompson, 1997). Art direction may therefore be defined as the organisational practice that translates design concepts into coherent visual environments.Art direction works within the broader framework of production design but focuses more specifically on the film's visual coherence. It guides the aesthetic strategy through which environments acquire stylistic unity, ensuring that colour, texture, architecture, and symbolic motifs operate within a recognizable visual

logic. In cyberpunk cinema, art direction often mediates between futurity and decay, crafting worlds that appear technologically advanced yet environmentally exhausted.

While set design is often nested within production design, it warrants particular attention for its affective role. Drawing on Sobchack's (1992) phenomenological account of film experience, this study understands set design as shaping the viewer's embodied orientation within cinematic space. It structures not only the movement of actors but also how spectators perceptually inhabit the diegetic environment.

Bordwell and Thompson (1997) note that the set decorator modifies the set for specific filming purposes, supervises the selection of props, and oversees their arrangement during shooting. This account highlights set design as an organisational and material practice rather than a purely decorative task.

Set design may therefore be understood as the deliberate construction and arrangement of spatial details that guide perception and support narrative action. Through the control of texture, scale, and object placement, it anchors the viewer within the filmic environment and reinforces the sensory credibility of the world. In dystopian settings, enclosed interiors frequently evoke claustrophobia, surveillance, or systemic collapse.

Costuming articulates character, class, and cultural codes. It operates both narratively and sensorially by cueing historical context and psychological nuance. As Bruzzi (1997) argues, costume does not merely reflect identity but actively participates in constructing it. Bordwell and Thompson (1997) note that the costume designer is responsible for planning and executing the wardrobe for a production. This description frames costuming as an intentional design practice rather than a supplementary visual detail.

Costuming may therefore be understood as the material organisation of dress through which identity becomes visible and socially interpretable. Through choices of fabric, colour, and form, it situates characters within cultural hierarchies while shaping the

viewer's immediate perceptual understanding of the filmic world. In cyberpunk cinema, the materiality of clothing, prosthetic augmentations, and chromatic strategies often signals technological hybridisation, surveillance culture, or posthuman transformation. Through these embodied markers, the social world becomes immediately legible.

While production design establishes the material conditions of the filmic world, mise-en-scene organises these materials within the frame.

mise-en-scene has been widely discussed in film studies. However, its definition is layered rather than singular. John Gibbs explains that mise-en-scene refers both to what appears within the frame and to how these elements are organised. It includes lighting, costume, decor, props, and performers. It also emphasizes the relationships among these elements. This includes the positioning of actors in space, their relation to the camera, and the construction of the spectator's viewpoint (Gibbs，2002). Gibbs' formulation presents mise-en-scene as a materially grounded and spatially organised framework through which meaning becomes visually legible.

Adrian Martin extends this view. He argues that mise-en-scene should not be reduced to a set of visual components. Instead, it should be understood as the sum of operations through which bodies, camera, space, lighting, décor, and performance are orchestrated within the frame (Martin， 2014). For Martin, mise-en-scene provides a productive way to explore cinematic style and aesthetic form. It functions as a "means of display" that selectively reveals or conceals elements for the viewer. In this sense, it is closely tied to directorial control, through which filmmakers arrange materials into an expressive whole.

Together, these perspectives suggest that mise-en-scene is not a fixed technical category. Rather, it moves between material composition and stylistic method. This conceptual flexibility helps explain why the term is often described as complex and contested within film scholarship.

In this thesis, mise-en-scene is understood as the compositional organisation of presence within the frame. It involves the spatial and visual structuring of actors, objects, lighting, and movement in ways that generate expressive meaning. Instead of treating mise-en-scene as a purely technical arrangement, this study approaches it as a mechanism through which mood, hierarchy, and atmosphere are articulated. As will be demonstrated, the strategic emptiness of space in *Blade Runner 2049* often amplifies a sense of existential silence. This example shows how absence itself can function as a powerful compositional strategy.

Cinematography refers to the photographic shaping of the film image. The cinematographer, also known as the director of photography, possesses expertise in photographic processes, lighting, and camera operation, and works closely with the director to determine how scenes are visually lit and filmed (Bordwell & Thompson, 1997).

Despite involving multiple technical variables, cinematography is not treated in this study as a collection of discrete components such as lighting, framing, or camera movement. Rather, it is approached as an integrative perceptual system in which these elements operate relationally to structure the viewer's sensory orientation and rhythmic engagement with the filmic world.

As Brown (2016) suggests, cinematography is the art of seeing with purpose. Its function is not only aesthetic but also psychological, guiding attention and modulating tension. In *Blade Runner*, lingering aerial shots simulate surveillance and entrapment, drawing the viewer into the architecture of decay.

Analysing cinematography through isolated technical categories would risk fragmenting the experiential continuity that underpins what this thesis conceptualises as multisensory resonance. Maintaining its analytical coherence is therefore methodologically necessary.

Together, these six elements combined make up the visual architecture of immersion. They transform fictional worlds from abstract ideas into a real living environment. Moreover, they do not operate in isolation, but function rhythmically. That is, they interact with the auditory dimension and bodily effects dynamically to form what this thesis terms a multisensory resonance field. In this field, narrative, atmosphere and perception are integrated to create an overall sensory experience, deepening the sense of immersion.

The next section discusses the theoretical background for understanding how affect, the auditory dimension, sense perception, and embodiment play a part in this multisensory dynamic. As the following will argue, these six visual agents are more than just implementation tools. They are tools of sensorial orchestration. They do not simply show the world. They entrain the viewer into it. In doing so, they activate what this thesis defines as the perceptual foundation of cinematic world-building: immersion is resonance.

2.2 Theoretical Foundations of Sensory and Affective Immersion

2.2.1 Theories of Affect and Sensory Perception

The six visual elements noted above work together with sound and bodily effects to form what this thesis calls a multisensory resonance field. To understand how this field produces immersion, it is helpful to turn to Deleuze and Guattari's critique of representation. In traditional aesthetics, meaning is organised through stable signs, symbols, and identities (Deleuze & Guattari, 1987). In contrast, resonance emphasizes embodied and pre-conscious engagement, where sensory intensities, rhythms, and affects flow between the film and the viewer. This focus shifts from what cinema shows to how it feels: how its textures and rhythms engage the body and invite the viewer into a shared perceptual space. In this sense, immersion emerges as a sensory and affective experience that precedes conscious interpretation.

In *A Thousand Plateaus* (Deleuze & Guattari, 1987), the notion of affect is introduced as a way of approaching immersion from the viewer's perspective. Affect is defined as "prepersonal intensity," referring to forces and movements that occur before conscious emotion or interpretation. Rather than seeing emotion as an internal or individual state, Deleuze and Guattari (1987) describe these intensities as relational and dynamic, shaping how bodies engage with their environments. This framing aligns closely with cinematic immersion. It highlights how the viewer's body adapts to the rhythms of the film and experiences its flow before reflective thought. Such pre-conscious resonances are key to how cinema creates sensory and affective immersion.

In *What is Philosophy?* (Deleuze & Guattari, 1994), they develop this further by approaching affect from the perspective of the artwork itself. They argue that art preserves affects as "blocks of becoming," creating a space where sensory and emotional flows can be held, transformed, and transmitted. In this view, art, particularly cinema, functions not only as a medium for expressing feelings but as a repository where affective resonance is sustained and made available for the viewer's embodied engagement. In this sense, cinema generates immersion by enabling a shared space where affect circulates between the artwork and the viewer. It reinforces the idea that immersion is fundamentally a relational, affective and resonant process.

Deleuze's solo works *Cinema 1: The Movement-Image* (1986) and *Cinema 2: The Time-Image* (1989) focus directly on cinema, developing a taxonomy of images that foreground the affective and sensory dimensions of film. In particular, his concept of the "affection-image" emphasizes how cinema engages not only through narrative and representation, but through the evocation of sensation and bodily affect. This perspective shifts attention from plot and meaning to the textures, rhythms, and intensities produced by images themselves. It takes visual composition as a key mechanism to trigger immersive, embodied responses in the viewer.

Together, these theories provide a conceptual ground for this thesis: that immersion in cinema is not primarily an act of interpretation but one of sensory and affective resonance. The following sections will explore each of these ideas in detail to demonstrate how they align with the multisensory logic of world-building in *Blade Runner* and *Blade Runner 2049*.

2.2.1.1 Affect as Prepersonal Intensities

Before the narrative unfolds, viewers often perceive the emotional tone of a film through its visual composition, lighting, colour, and sound. In many films, these non-verbal elements evoke a feeling or mood before the story is understood. A clear example is watching a foreign language film without subtitles: although understanding of the dialogue may be frustrated, the viewer will still be emotionally engaged and respond to the texture of the visual and auditory elements rather than the narrative content.

These examples show what Deleuze and Guattari (1987) describe as affect in *A Thousand Plateaus*. By "prepersonal intensity" they mean forces and movements that come before conscious emotion or interpretation. Affect, in this sense, is not an inner psychological state. It is a dynamic and relational process. Even before reflective thought gets going, the body establishes relationships to the world around it. From this standpoint, cinematic immersion has less to do with decoding a story than sensing the rhythms, atmospheres, and sensory flows of the film. At moments such as these, the viewer transcends mere "intellectual" viewing. They stride into a resonant place where immersion begins with embodied perception and affective reaction.

This relational dynamic of immersion can be further understood through Deleuze and Guattari's (1987) theory of *becoming*. Concepts such as "becoming-intense," "becoming-animal," and "becoming-imperceptible" describe processes in which

identity, form, and function dissolve. They allow for movement across species, senses, and categories. These becomings are not acts of imitation but relational flows of contagion and resonance that unfold between bodies and environments. Within this framework, affect operates as a continuous force of transformation. It is a fluid modulation of intensities that connects the viewer with the cinematic world beyond symbolic representation.

Importantly, Deleuze and Guattari (1987) locate the culmination of all becoming in what they call the "plane of consistency": a field without borders or hierarchies, composed entirely of speeds, relations, and intensities. In this context, "speeds" refer to the dynamic qualities of material or sensory flows; "relations" describe the connections formed through movement and affect between bodies, objects, and environments; "intensities" capture the tension or force of emotional and sensory experience. On this plane, entities are no longer defined by fixed identities, forms, or functions but by their capacity to enter into relations and participate in affective flows. The form that individuation takes here is *haecceity*, an existence mode. It is not characterized by what things are, but by how they move, change and resonate with others. A moment in time, a breeze, or a landscape all can be haecceities, because they are precisely defined through their movement patterns and their ability to affect others. Thus, existence itself is no longer conceived as stable or bounded but as an open, fluid process of continual becoming. A resonant field where immersion emerges not from interpretation but from the embodied alignment of speeds, relations, and intensities.

In this sense, cinematic immersion can be understood as a process of haecceity: the viewer does not function as a detached spectator but is entangled in the film's dynamic flows of atmosphere, rhythm, and sensation. Immersion, then, is not structured by chronological or narrative time but by what Deleuze and Guattari describe as aeon time; a continuous, open-ended temporality that emphasizes pure becoming and intensity. In this framework, time is not seen as linear or directional.

Instead, it exists as an ongoing process of change. It does not rely on the sequence of events or the idea of closure but the infinite generation and constant transformation of existence.

Ultimately, this theoretical lens allows us to reconceive immersion as resonance itself: a state in which the viewer's sensory, emotional, and perceptual rhythms enter into alignment with the cinematic environment, forming a fluid, dynamic continuum. Immersion is thus not a matter of decoding images or stories but of becoming-with the film. A multisensory, affective entanglement that dissolves boundaries between subject and film.

2.2.1.2 Affect as Blocks of Becoming and Art as Preservation

In *What is Philosophy?* Deleuze and Guattari (1994) develop their theory of affect by shifting the focus from subjective feeling to the artwork itself. They argue that art is not simply a vehicle for expressing emotion or memory. Rather, it is the only thing that truly preserves. What it preserves is not an object, representation, or narrative, but what they call "blocs of sensations": autonomous compounds of percepts and affects that exist independently of the artist, the viewer, or any specific subject.

Percepts and affects, in this framework, are no longer tied to individual experience. Percepts are not perceptions and affects are not feelings. They are beings whose validity lies in themselves, exceeding any subjective interpretation or emotion. This perspective suggests that art, particularly cinema, functions as a field where viewers encounter these blocs directly. Viewers do not decode meaning but instead attune their bodies to the intensities, textures, and rhythms carried by these blocs.

Deleuze and Guattari (1994) describe every artwork as a "monument," but not a monument commemorating the past. Instead, it preserves sensations as they are, allowing them to circulate freely across time and space. In cinema, this explains why

immersion feels less like understanding a story and more like entering a shared affective space where percepts and affects remain alive and vibrant. The monument metaphor reinforces this idea. Cinema generates immersion by sustaining blocs of sensation. Viewers can inhabit these blocs regardless of narrative or historical context.

Moreover, Deleuze and Guattari emphasize that although sensations require material supports, such as canvas, pigment, sound, light, they are not reducible to these materials. The material serves as the medium through which percepts are extracted from perceptions and affects from affections, transforming them into blocs that can stand on their own. This distinction is central to understanding how cinema operates. The image, colour, and sound design of film act as mediators. They preserve sensory intensities and affective charges, and together, create a terrain where viewers engage bodily with the film.

They extend this logic further by illustrating how the “plane of composition” structures sensation in both visual and auditory arts. Different from the “plane of consistency” discussed in 2.2.1.1, which describes a universal field of becoming beyond stable identities (Deleuze & Guattari, 1987), “the plane of composition” offers a more focused framework for understanding how percepts and affects are arranged within aesthetic works (Deleuze & Guattari, 1994). In this context, Deleuze and Guattari claim that art is not a rigid structure but a fluid composition, emphasizing the continuous potential for variation and transformation.

For example, in painting, frames and sections interlock to hold percepts and affects together. At the same time, they are open to reinterpretation and transformation. This principle also appears in music, where motifs, refrains, and themes function as sonic blocs that carry and organise the viewer's sensory experience. These formal structures enable a dynamic tension between “framing” and “deframing”. In other words, the artwork provides a sense of structure and order while allowing these structures to be continually deconstructed, loosened, and reformed. The artwork captures sensory

experience in a temporary state of stability, but this stability is not permanent. It always retains the potential for reorganisation, transformation, and change.

Through this process, art produces what Deleuze and Guattari call "nonhuman becomings": affect becomes the zone of indeterminacy where perceptual and affective flows merge. These flows transcend boundaries between human and nonhuman, subject and object, material and immaterial. This view resonates deeply with cinematic immersion. Cinema does not just present a world, it sustains a relational field where percepts and affects circulate between film and viewer, generating a shared space of embodied resonance.

In sum, these ideas help position cinema as an affective medium of preservation and transformation rather than representation. Immersion arises not from interpretation but from the rhythmic circulation of perceptual and affective blocs. Cinema's image, sound, and rhythm create a relational field. In this field, viewers encounter sensations not as static forms, but as living and lived intensities. These intensities are continuously held, transformed, and transmitted. This process fulfills the unique role of art as the preservation of affective becoming.

2.2.1.3 Affection-Image and the Taxonomy of Images

Building on the idea that cinema preserves affective becoming, Deleuze highlights the film's unique role in organizing and sustaining affective intensities. Through visual composition, sound, and rhythm, cinema does more than tell stories. It preserves and transforms flows of sensation. This is especially clear in how cinematic images convey emotions and sensory experiences.

In *Cinema 1: The Movement-Image* (1986), Deleuze develops a taxonomy of images that organise sensory and affective experiences in distinct ways. Among these categories, the affection-image occupies a distinct place in Deleuze's

image-classification system. While the movement-image and time-image foreground action and temporality, the affection-image captures pure qualities or intensities of feeling. It does not describe actions or temporal sequences but instead conveys the felt presence of sensation itself, what Deleuze calls a "power or quality considered for themselves, as expressed" (Deleuze, 1986, p. 97).

At the core of this concept is the cinematic close-up, which Deleuze famously describes as the privileged site for the affection-image. In particular, the face plays a central role. It becomes a central symbolic medium that goes beyond personal identity. In close-up, the face suspends individuation and reveals pure expressions of sensation, detached from narrative or social function. It becomes an autonomous field where micro-movements, intensities, and emotional forces circulate. As Deleuze notes, this operation effectively abstracts the face "from all spatio-temporal coordinates," elevating it into a self-contained zone of affective resonance (Deleuze, 1986, p. 96). This suspension of individuation changes how the viewer sees the face. It is no longer just a window into a character. Instead, the face becomes an expressive surface. On this surface, tension, desire, fear, and tenderness appear. These are not tied to a specific role or plot. They emerge as pure affects, felt directly through the image.

This notion is clearly illustrated in *Blade Runner* (1982), where close-ups of the replicants, especially Rachael (Sean Young), draw the viewer into moments of suspended subjectivity. Her gaze in these close-ups is not simply the gaze of a character caught in a narrative but becomes a surface that vibrates with the tension between artificiality and humanity. The replicant's face in close-up shows what Deleuze calls the "reflective unity" of the affection-image. This unity comes from a mix of expressive details and still emotional intensity. Together, they create a strong affective experience for the viewer. At these moments, what the film does is more than just building emotional identification. It creates a kind of sensory proximity. The viewer does not just observe the image but enters its emotional and sensory depth.

From this point, Deleuze extends the discussion toward the concept of the *any-space-whatever* (*espace quelconque*), which describes cinematic spaces that are abstract, indeterminate, and disconnected from clearly defined locations (Deleuze, 1986). These are not narrative-driven or geographically specific settings. Instead, they act as affective environments where emotion is shaped through atmosphere rather than action. Such spaces dissolve spatial and narrative continuity, inviting the viewer into a field of perception rather than recognition. Their meaning does not come from what they represent, but from how they feel. In this sense, they sustain and circulate affects by constructing a sensory mood that bypasses cognitive understanding.

In *Blade Runner* , this type of space appears throughout the film. The rain-soaked alleys, neon-lit rooftops, and foggy high-rises do not offer clear geographic orientation. Instead, they immerse the viewer in a mood of estrangement and melancholy. These spaces do not explain the story; they intensify its emotional texture. Often, they are paired with close-ups of the replicants' faces, especially Rachael and Roy Batty (Rutger Hauer). The emotional charge of these scenes arises from the interplay between the suspended face and the ambient void. The face holds the tension of being human and not-human, while the space around it reinforces a sense of isolation, longing, or tenderness. Together, they create an affective atmosphere that is both intimate and detached.

Instead of ushering the viewer through a plot, the any-space-whatever draws them into a perceptual landscape. The landscape is characterized by rhythm, mood and affect. It allows a film to immerse you, not in actions or dialogue, but in the flow of sensation. It clears out a space for a viewer in which he or she can connect with the film through perception rather than interpretation.

This framework provides an important segue to the next part of the analysis. The affection-image and the any-space-whatever displaces narrative logic with the register of perception. This innovation opens the way to understanding cinema as a multisensory experience. When a film moves away from clear spatial organisation and

enters affective fields, it offers the viewer a new way of sensory engagement. Viewers would start to sense the rhythm of the image and how it related to sound, rather than just follow a narrative. In this context, the affection-image is not just a visual technique: it is a perceptive crossover, from the visual level to the auditory dimension, where aural, rhythm and dialog can immerse the viewer.

2.2.2 Aural Design and Musical Score

Up to this point we have focused primarily on the visual sense. Michel Chion's theory of the audiovisual relationship shifts the focus from sound as a secondary element to sound as an active force that shapes perception. He introduces the concept of the *audiovisual contract*, in which viewers automatically combine what they see and hear into a single, coherent perceptual experience (Chion, 1994). This contract sets the conditions for immersion by making audiovisual synchrony feel natural. Even when the image and sound do not come from the same source, they are perceived as unified. Such considerations are especially important to the reception of both *Blade Runner* and *Blade Runner 2049*, where the soundtracks—and sophisticated aural scores, in particular—are so integral to the cinematic experience.

It is important here to distinguish between soundtrack and score. The soundtrack includes all recorded sound elements, dialogue, ambient noise, and sound effects. They are synchronized with the image. These components give the film its material texture and anchor it in a believable world. In *Blade Runner*, the constant sound of rain, traffic, and mechanical hums builds a dense atmosphere. In *Blade Runner 2049*, the ambient soundscape of drones, footsteps, and environmental noise grounds the viewer in the texture of its dystopian setting. The soundtrack gives weight and detail to the cinematic world, making it feel lived and real.

The score, by contrast, is the composed music written specifically for the film. It does not merely accompany the image but actively shapes its emotional and atmospheric

tone (Chion, 1994). Vangelis's electronic score for *Blade Runner* has often been described as a sonic architecture of mood. It fuses synthetic textures with ambient rhythms, generating an atmosphere of estrangement and longing that blends seamlessly with the city's rain and neon. In contrast, Zimmer's monumental score for *Blade Runner 2049* relies on overwhelming bass tones and resonant drones. These sounds create a bodily impact, situating the viewer in an immersive field of vibration. Together, the two scores illustrate different modes of aural immersion: Vangelis through atmospheric estrangement, and Zimmer through physical resonance. Rather than supporting the visual narrative, they participate in constructing the film's emotional and sensorial landscape.

Building on this understanding of the soundtrack and score, Chion further introduces two key concepts, *synchresis* and *added value,* which deepens our insight into how sound functions as a dynamic force in shaping audiovisual perception.

The concept of synchresis means a fusion of synchrony and synthesis. It describes the phenomenon where sound and image, when occurring together, are perceived as unified. This perception happens regardless of their actual connection (Chion, 1994). Synchresis helps explain how sound shapes the temporal and emotional aspects of cinematic images. It turns visual rhythm into a multisensory experience.

The concept of added value further explains how sound enhances the image. Sound adds depth, atmosphere, and affective texture to visuals that would otherwise feel flat (Chion, 1994). Through sound, cinema creates immersion not by merely reinforcing the visual, but by amplifying affective resonance. It layers rhythm and mood onto the visual structure, just as previously noted in the distinct emotional and sensory tones established by the scores of *Blade Runner* and *Blade Runner 2049.* This foundation naturally leads to the exploration of rhythm in speech and dialogue. This extends beyond pure sound into the realm of narrative rhythm itself.

2.2.3 Narrative Rhythm and Dialogue

Chion's concept of *temporalization* challenges the idea that sound merely supports the image. Instead, sound becomes an architect of time. It imposes continuity, rhythm, and emotional pacing that the image alone cannot sustain (Chion, 1994). Temporalization is the process by which sound grants temporal structure to visual events.

In *Blade Runner 2049*, for instance, when K (Ryan Gosling) lies in his vehicle, surrounded by rain and synthetic music, the shot is nearly still. The synthetic score stretches with deep drones and elongated tones, making time feel heavy. The low vibration of the vehicle add to this atmosphere, surrounding the viewer with a bodily sense of resonance. Yet, the soundscape renders the moment as flowing time, a suspended emotional duration where the past sinks in and the future looms. Even without motion, sound builds a temporal atmosphere, guiding the viewer's experience of continuity and internal tension.

Dialogue, as a form of sound, also participates in this temporal orchestration. Its tempo, cadence, and intonation shape the narrative's flow, influencing how tension builds or dissolves in a scene. Roland Barthes's concept of the *grain of the voice* complements Chion's ideas. It shifts the focus from linguistic meaning to the sensual materiality of voice itself (Barthes, 1977). Barthes distinguishes between the "pheno-song" and the "geno-song" The "pheno-song" refers to the culturally coded, communicative dimension of voice. The "geno-song" refers to the bodily, textured dimension that transcends linguistic meaning.

In this framework, dialogue does not merely convey narrative information. It also brings a rhythmic and tactile texture. This texture engages the viewer on a corporeal level. The "grain" refers to the roughness, breath, and imperfection in the voice. These qualities, while not part of clear semantic communication, enhance the embodied immersion of cinema. In *Blade Runner*, for example, dialogue-laden scenes

are not just functional exchanges. They are moments where vocal intonation, pauses, and breath create a tactile rhythm. This rhythm resonates with the film's atmospheric density.

Chion's concepts of the audiovisual contract, synchresis, and added value establish a theoretical basis for understanding how sound fuses with image to form a unified perceptual field. These mechanisms explain why sound is not secondary, but central to immersion. This dynamic is vividly illustrated in the musical scores of Vangelis and Zimmer. Rather than serving as background, their compositions actively shape emotion, atmosphere and bodily sensation: Vangelis through atmospheric estrangement, and Zimmer through physical resonance. Chion's notion of temporalization further explains how sound imposes continuity and emotional rhythm even in moments of visual stillness. Finally, Barthes's grain of the voice enriches this framework by highlighting the voice's tactile and embodied dimension. Its breath, texture, and imperfection operate beyond semantic meaning to evoke affective resonance. Together, these perspectives reveal how narrative rhythm, dialogue, aural design and musical score, combine with visual composition to create a multisensory resonance.

2.2.4 Perceptual Flow and Embodiment

The concept of immersion explored in this thesis relies not only on visual and auditory structures but also on the way cinematic experience engages the viewer's body. In this regard, Marks's (2000, 2002) work on *haptic visuality* provides a vital theoretical foundation. She argues that the cinematic image can function haptically, inviting the eye to operate like a hand, "touching" textures, contours, and surfaces displayed on screen (Marks, 2000). Haptic visuality foregrounds materiality: spectators do not merely decode images as signs but experience them as sensuous, textured presences that draw the body into an intimate relation with the screen.

Marks (2000) extends her argument with the concept of the *portable sensorium*, She suggests that film viewing becomes a process of navigating embodied sensory experience across cultures. For Marks, the core mission of intercultural cinema lies in translating intimate, culturally specific bodily memories, memories of taste, smell, and touch, into audiovisual form. Immersion, therefore, is not achieved mainly through intellectual understanding of narrative or language, but through sensory and bodily interaction with the textures of film. These textures act as triggers that activate deep layers of personal and cultural memory. In this sense, cinema functions not simply as a screen but as a "membrane" that connects viewers to the material forms of these memories. The body becomes a perceptual interface, sustaining engagement through sensory participation rather than narrative decoding.

Sobchack's phenomenology of film experience complements this by focusing on embodiment in cinema. She argues that perception is not passive but intentional and reciprocal (Sobchack, 1992). Watching a film, for Sobchack, is not just a cognitive process but a "carnal" experience, where the viewer's body interacts directly with the film's rhythms and movements. This alignment of the film's flow with the viewer's bodily rhythms creates a holistic sensory experience, one that goes beyond simply following the narrative. In this framework, the body plays a central role in how the viewer emotionally responds to the film. The viewer's body, such as its movements, breath, and heartbeat, synchronizes with the film's rhythms. Even if the dialogue is unintelligible, the body still responds to the rhythm and pacing. It enhances immersion through sensory coherence rather than linguistic understanding.

Together Marks and Sobchack broaden the concept of embodied immersion. They argue that the cinema is not just a visual and auditory experience but also provides "sensory and affective entrainment" for the viewer. This is how cinema builds a multisensory resonance. The viewer's body, and the rhythms of the film, coalesce to create a rich, affective experience.

2.2.5 Becoming and Flow: A Multisensory Resonance Field

The previous sections have shown how visual elements work with sound and bodily effects. These elements do not function alone. They form a rhythmic system of perception. To connect these insights, this section introduces the concept of the *multisensory resonance field*. This refers to a non-linear, flowing structure of perception, where immersion is not triggered by a single sensory channel, but through the ongoing interplay of vision, sound, and bodily awareness.

Deleuze's concept of the *affection-image* offers an entry point into this field. In close-up shots, the face no longer serves a narrative function. It becomes a site of pure intensity, a quality or force "expressed for itself" (Deleuze, 1986). When such images appear in what Deleuze calls *any-space-whatever*, they suspend narrative meaning and instead invite viewers to feel emotional intensity directly. These images create an open space for sound and bodily sensations to enter and interact.

In terms of sound, Chion (1994) introduced the idea of the *audiovisual contract*. He explained this process using the term *synchresis*. This word combines *synchrony* and *synthesis*. It describes how viewers naturally accept the pairing of sound and image. Even when sound does not logically match the image, the viewer still accepts it if it feels rhythmically right. Sound shapes not only perception but also meaning. Chion developed the idea of *added value*. He employed it to show how sound can shape the emotional tone of a scene. Sound also changes the way images are viewed and interpreted. More importantly, sound creates time. It introduces rhythm, delay, and rupture, allowing the body to synchronize with the cinematic pulse.

Barthes (1977) emphasized the *grain of the voice* as a carrier of emotion and individuality. In film, the viewer does not just "hear" language; they feel its texture, tone, and breath. Especially in whispered or fragmented speech, sound moves beyond communication. It becomes a tactile sensation that resonates with the skin. This is where voice breaks through the structure of language and touches the viewer directly.

Marks (2000) expanded the sensory range of vision through her concept of *haptic visuality*. She argued that images can be sensed, not just seen. Visual perception becomes a kind of touch, drawing the viewer into a bodily form of engagement. This process creates what she calls a *portable sensorium,* a system where viewers bring their own sensory experiences into the interaction with the image. Sobchack (1992), in her phenomenology of film experience, also emphasized the viewer's physical response. Breathing, heartbeat, and muscle tension often mirror the film's rhythm. As she states, watching a film is not a detached act of observation. On the opposite, it is actually an embodied experience in where the viewer resonates with the film from the inside out. Therefore, immersion is not about interpretation but about embodied resonance.

Together, these theories show that immersion is not a single event but an ongoing process. To describe this process, this thesis draws from Deleuze and Guattari's notion of *becoming*. The multisensory resonance field is understood as a state of continuous transformation. Fluid, open, and always in motion. The viewer is not a passive receiver of meaning but an active resonator. Their body, emotion, and awareness are constantly reorganised in response to the rhythms of image, sound, and space. Immersion is no longer about entering a world. It is about co-creating it. It is a state of *resonance-as-becoming*.

The multisensory resonance field can therefore not be regarded as a result of sensory coordination alone. It is a mechanism of perceptual transformation. Through the hierarchical interaction of visual intensity, sound texture and bodily rhythm, the viewer has an immersive experience. In this view, immersion is something formed through the flow of perception.

2.3 Research Gaps and Contributions

The concept of world-building has been extensively examined in narrative-driven domains such as speculative fiction, films, games, and transmedia stories. In films, especially in cyberpunk cinema, a large proportion of studies have long focused on narrative coherence, symbolic decoding, and the reproduction of ideological structures. In this view, the image is treated as a vessel of meaning, requiring the viewer to decode its semantic content. This representational paradigm tends to overlook the film's potential as a sensory and affective experience.

At the same time, immersion has become a central concern in media studies, particularly in relation to VR and XR technologies. Yet most of these studies emphasize interactivity and user participation. Few studies have explored how traditional cinema, without interactive elements, generates immersive experiences through visual rhythm, sound design, spatial atmosphere, and bodily engagement.

To address these gaps, this thesis proposes a multisensory resonance field framework that shifts the focus from semantic decoding to perceptual structure. The six visual elements, cinematography, art direction, production design, mise-en-scene, set design, and costuming, are examined not as symbolic carriers but as resonant triggers. Using *Blade Runner* and *Blade Runner 2049* as case studies, these elements shape the viewer's breathing patterns, physical rhythms, and spatial awareness, turning film-watching into a process of emotional and sensory synchronization.

Although scholars such as Marks (2000), Sobchack (1992), Chion (1994), and Deleuze (1986, 1989) have separately examined aspects of haptic visuality, embodied perception, audiovisual relations, and affective images, there is no coherent framework that integrates these insights to explain how visual and other sensory elements work together to construct credible immersive worlds. This study fills that gap by combining world-building analysis with theories of affect, sense perception, the auditory dimension, and embodiment.

The contributions of this study are twofold. Firstly, it expands the path of world-building analysis by shifting from semantic logic to perceptual design. This responds to the broader shift in visual culture from meaning to sensation. Secondly, it develops a non-interactive immersion model for traditional cinema. This model complements VR-focused research. It offers a framework that explains how visual and auditory elements work together. They co-create a multisensory resonance field that feels both real and lived.

CHAPTER 3. DESIGN OF THE STUDY

This chapter outlines the design of the study in relation to its two research questions. The first asks: how do six visual elements, cinematography, art direction, production design, mise-en-scene, set design, and costuming, contribute to world-building in the cyberpunk films *Blade Runner* and *Blade Runner 2049*? The second asks: in what ways do these visual elements along with the auditory dimension collectively generate immersive perception through sensory resonance?

To address these questions, the study employs a qualitative case study approach, focusing on the two Blade Runner films as comparative cases. Section 3.1 explains the reason for using a qualitative case study. Section 3.2 justifies the choice of these films. Section 3.3 revisits the concept of the multisensory resonance field. This framework defines immersion as resonance that is generated across the visual, auditory and somatic dimensions, and lays the foundation for a model and a concept developed in later subsections. Section 3.4 builds on the model and concept introduced in Section 3.3 It outlines the concrete analytical tools used in this study. Drawing on Kress and van Leeuwen's (2006, 2001) visual grammar and multimodality, it provides a methodological framework for analyzing how six visual elements contribute to world-building and how visual, aural, and bodily dimensions generate immersion.

3.1 Qualitative Case Study Approach

This study does not treat film merely as representation. It approaches film as an experiential medium through which worlds are sensed and inhabited.

Methodologically, the research is grounded in film philosophy as a sub-field of film and media studies. It understands film not only as a carrier of symbolic meaning but also as a sensory and affective medium capable of generating embodied world-experience. This orientation positions the study as a perceptual inquiry into how film is experienced through the senses.

Within this framework, the study adopts a qualitative approach. The goal is not to evaluate numerical indicators or survey data, but to explore the sensory and aesthetic mechanisms embedded in film.

The data will be collected through close analysis of selected films. This will be supported by academic literature. As Denzin and Lincoln (2018) note, qualitative research is "a situated activity that locates the observer in the world" (p. 43). This means that the researcher is embedded within the social and cultural contexts being studied, rather than detached from them. It allows for the study of experience, affect, and meaning as they are produced, which are central to understanding immersion and sensory resonance.

For the first research question, a qualitative approach makes it possible to trace how the six visual elements, cinematography, art direction, production design, mise-en-scene, set design, and costuming, contribute to world-building. This approach can capture the layered nature of design across macro, meso, and micro layers. It can reveal how these elements configure geopolitical conditions, political hierarchies, economic flows, cultural rituals, and affective environments in ways that cannot be reduced to quantitative measures.

For the second research question, qualitative analysis is especially suited to the study of vision, sound, and bodily effects, as these phenomena are difficult to capture with quantitative tools. Marks (2000) has shown how haptic visuality turns seeing into a tactile and embodied perception. Sobchack (1992) also demonstrated, from a phenomenological perspective, that viewers resonate bodily with film, their breathing and rhythms aligning with the cinematic flow. These examples suggest that immersion is best studied through close qualitative analysis.

In addition, this study is based on a case study approach. A case study aims at gaining a detailed insight into complex situations. It places cultural artefacts in their own contexts. Stake (1995) argued that case studies allow researchers to capture the wholeness of a case. For instance, in this study this means examining how cinematography, art direction, production design, mise-en-scene, set design, and costuming operate together rather than in isolation. Yin (2014) pointed out that a case study is particularly effective in answering "how" and "why" questions. This study examines how the six visual elements shape cinematic worlds and how their interaction with sound and bodily perception generates the elusive quality that we term immersion. The aim is to uncover the meanings, motives, mechanisms, and processes behind these phenomena. Sensory resonance does not exist in the abstract, it unfolds in the concrete scenes and aesthetic structures of film. World-building provides the foundation for immersion, while immersion in turn via the elements outlined above is an effect of successful world-building. This is why both must be analysed together within specific film cases.

In sum, a qualitative case study approach is the most suitable path for this research. It offers methodological flexibility, making it possible to address the interconnected processes of vision, sound, and body. It also helps explain how these processes create complex experiences of perception and resonance in film.

3.2 Case Selection: Why *Blade Runner* series?

This study selects *Blade Runner* (1982) and *Blade Runner 2049* (2017) as comparative case studies within the same cinematic universe. Both films are part of the cyberpunk genre, but they build cinematic worlds and shape immersion in distinctly different ways. The first highlights sensory saturation, while the second emphasizes aesthetic restraint.

In *Blade Runner*, immersion emerges from sensory overload. Rain, steam, smoke, neon, and signage layer over one another. Streets teem with people and noise. Low-key lighting, backlit haze, and flashing ads push light into the viewer's eyes. Sound is dense: synth lines, engines, voices, and public announcements overlap.The camera moves through tight corridors and low angles. Each shot offers more detail than the eye can read at once. The result is pressure on the senses. The viewer feels packed into the city's flow.

By contrast, *Blade Runner 2049* constructs immersion through emptiness and suspension. Wide shots, long takes, and slow tracking create room to breathe. K is often small and off-centre, set against planes of sky, snow, or sand. Colour arrives as controlled fields, such as white winter and the orange of Las Vegas, rather than busy neon mixes. Light is soft and diffuse. The low frequency and sparseness of the sound design emphasize silence and environmental resonance. In conjunction, the strategies allow for the establishment of distance, stillness, and affective suspension. They leave the viewer's experience in an unresolved state of tension.

Through a comparative look at these two films, this study will explore how six visual elements cinematography, art direction, production design, mise-en-scene, set design, and costuming, operate together. They exist as interrelated elements within a multisensory resonance field. Together, these elements in relation to sound and the body shape the immersive experience.

3.3 The Multisensory Resonance Field: A Framework for Immersion as Resonance

The previous chapter identified the macro–meso–micro framework, which provides the structural skeleton for cinematic world-building. The six key visual elements can be understood as its vital organs. This addressed the first research question: how these six elements contribute to world-building.

However, world-building alone does not explain immersion. Immersion arises from the interplay between these visual elements, sound, and bodily perception. In this interaction, the six elements operate as part of a multisensory resonance field, working with auditory textures and bodily orientation to shape the viewer's sensory engagement. This perspective addresses the second research question: how the six elements collectively generate immersive perception through rhythmic and sensory resonance.

To develop a practical analytical model from this concept, it is necessary to first revisit the theoretical foundations of immersion as resonance. Section 3.3.1 synthesizes these perspectives and prepares the ground for the *multisensory resonance model* introduced in Section 3.3.2.

3.3.1 Immersion as Resonance: A Theoretical Synthesis

This study understands immersion not as the outcome of narrative structure or semantic decoding, but as a process of resonance that unfolds between image, sound, and body. Resonance refers to the flow of intensity, rhythm, and affects between sensory channels such as sight, sound, and touch. This flow does not rely on the viewer's conscious reasoning; it is triggered directly at a pre-conscious and bodily level.

Several key scholars support this perspective. Deleuze's concept of the *affection-image* shows that perception can bypass narrative logic and present pure intensity (Deleuze, 1986). Building on this visual entry point, Chion (1994) explains how sound fuses with image through *synchresis* and gains emotional depth through what he calls *added value*. If sound deepens resonance through rhythm, voice embodies it further. Barthes (1977) emphasized the *grain of the voice* as a bodily texture that is felt as much as it is heard, extending resonance beyond language. Vision also exceeds representation, as Marks (2000) describes in her notion of *haptic visuality*, where seeing becomes a form of touching that activates memory and sensual engagement. In this sense, resonance is not limited to sound but extends to vision as touch. Finally, Sobchack (1992) argues that film viewing is itself an embodied act: the viewer breathes, tenses, and moves in rhythm with the screen. Resonance here becomes fully embodied, synchronizing the viewer's bodily rhythms with the film.

Taken together, these theories suggest that immersion is not a single act of interpretation but a dynamic field of resonance. Drawing on Deleuze and Guattari's notion of *becoming* (1987), this field can be seen as a continuous flow of transformation, where perception, affect, and meaning co-evolve. Immersion, then, is not about entering a finished world but about participating in its creation through rhythmic and affective resonance.

3.3.2 The Multisensory Resonance Model: Key Dimensions of Immersion

Building on the concept of the multisensory resonance field, this section introduces the *multisensory resonance model* as a practical analytical tool. While the multisensory resonance field describes immersion as an abstract orchestration between vision, sound, and body, the model translates this idea into a structured and applicable framework. By defining three key dimensions, *cultural echo*, *affective atmosphere*, and s*patial dynamics,* it breaks down the abstract field into distinct,

analyzable components. This approach directly addresses the question, “What constitutes the sense of immersion?” These dimensions correspond to the main sensory pathways of vision, sound, and body which do not function in isolation but unfold together in the act of viewing, producing overlapping effects. Through these dimensions, the model explains why fictional worlds are made life-like, why viewers experience emotional synchronization, and why they feel located and enfolded in cinematic space.

In practice, cultural echo emphasizes how visual motifs and signs activate cultural memory. Affective atmosphere shows how sound and visual rhythm work together to shape an affective field. Spatial dynamics highlights how the body resonates with visual spatial tension and movement. Together, these dimensions constitute the heart of the multisensory resonance model, showing that immersion is not the outcome of a single channel but rather a synergistic effect of cultural memory, emotional alignment, and embodied resonance.

Cultural Echo

Within the multisensory resonance model, cultural echo explains why fictional worlds can appear real to viewers. Its force lies in the way vision not only conveys narrative information but also activates shared patterns of cultural memory. Deleuze’s (1986) concept of the affection-image provides an entry point to this process. In close-up shots, images do not serve narrative progression but present pure intensity. For example, when a character cries after heartbreak, the viewer does not need to interpret the cause but is struck by the intensity of the tears and lament themselves. This perception bypasses explanation and directly touches the body and senses.

Such intensity is not an isolated personal feeling; it resonates because it activates collective cultural memory and a sense of symbolic familiarity. In this way, fictional images appear “recognizable” or even “believable.” Barthes (1972) argues that the

essential function of myth is the naturalization of concepts through cultural circulation, whereby historically contingent signs appear as natural facts. Building on this, one can suggest that what begins as a private emotion may be amplified into a shared cultural resonance. As Kress and van Leeuwen (2006) argue, meaning arises not from isolated signs but from semiotic resources shaped by cultural and social conventions. Similarly, van Leeuwen (2005) emphasizes that individual meaning-making is always mediated by cultural resources and social rules. Extending these insights, this thesis conceptualizes how personal experience becomes absorbed into collective symbolic structures and re-enters perception as what is here termed cultural echo.

In *Blade Runner* and *Blade Runner 2049*, this cultural echo is especially evident. Towering billboards, neon-saturated skylines, and multilingual signs do not solely function as narrative symbols to be decoded. Instead, they evoke familiarity through widely circulated cultural signifiers. Even for viewers who have never visited real-world urban spaces that approximate these fictional locations (such as Tokyo, Hong Kong or Shanghai), these visual motifs activate a sense of recognition. Through this process, the films' cyberpunk worlds, though fictional, gain a felt quality of reality.

Affective Atmosphere

Within the multisensory resonance model, affective atmosphere explains why viewers experience emotional resonance during film viewing. The key lies in the way sound and visual rhythm work together to activate the viewer's emotional system, bringing their feelings into alignment with the film's atmosphere. As Chion (1994) describes in his concept of synchresis, viewers naturally accept the pairing of sound and image, even when they do not match logically, as long as the rhythm feels right. This mechanism gives sound the power to add emotional depth to the image, which Chion calls added value.

Beyond rhythm and fusion, the texture of sound also plays a central role. Within the soundtrack, dialogue, ambient noise, and sound effects each contribute to this texture, while the score adds a further musical dimension. Barthes (1977) emphasizes the grain of the voice. This includes its breath, timbre, and emotional tone. He describes it as a bodily quality that is felt as much as it is heard. In this sense, sound exceeds language and touches the body directly. Ambient noise and sound effects, such as rain, fog, or echoes, extend this bodily impact into the environment. They surround the viewer with an emotional field. The score deepens this field through rhythm, tone, and resonance, guiding affect across the cinematic space. Together, these sonic elements create what Bohme (1993) defines as atmosphere: a diffuse quality that spreads between body and environment, so that viewers are not distant observers of emotion but immersed within it.

In both *Blade Runner* and *Blade Runner 2049*, this affective atmosphere is strikingly present. The first film constructs density and pressure through urban noise, synthetic sound effects, and the constant sound of rain. The sequel, by contrast, uses minimal soundscapes, low-frequency rumbling tones, and vast silences to create an atmosphere of solitude and meditation. Despite these differences, both films synchronize the viewer's emotional rhythm with the cinematic world, deepening the sense of immersion.

Spatial Dynamics

Within the multisensory resonance model, spatial dynamics explain why viewers feel as if they are inside the film rather than outside observers. Viewing is not only visual decoding but a tactile form of perception: the body is always placed within the spatial structure of the film. As Sobchack (1992) argues, film viewing is an embodied act. The viewer's breath, tension, and physical responses often synchronize with the rhythm of the image.

This embodied dimension extends beyond movement to the very texture of visual experience. Marks (2000), through her concept of haptic visuality, shows that images do not merely represent space but invite the viewer to "feel" it through texture, rhythm, and tactile forms of seeing. Such qualities, much like bodily touch, position the viewer not as a detached observer but as a participant within the film's spatial field.

This embodied positioning is also shaped by power and gaze. Mulvey (1975) noted that cinematic language does not simply transmit meaning but positions the viewer through structures of gaze and space. The viewer is not detached but located within a field of tension. This tension is produced through scale, direction, depth, and camera movement, pulling the viewer into both the psychological and bodily experience of space.

In *Blade Runner* and *Blade Runner 2049*, spatial dynamics are central to immersion. The first film often uses low-angle shots and crowded urban environments to place the viewer within a compressed and oppressive space. The sequel, by contrast, employs distant vistas, slow tracking shots, and vast silences to situate the viewer in a state of suspension or drift. Despite their different strategies, both films embed the viewer's body into the cinematic world through spatial design and camera movement, thereby intensifying immersion.

3.3.3 Mechanism of Resonance: The Perceptual Resonance Loop

The previous section introduced the multisensory resonance model. It maps three core sensory dimensions, cultural echo, affective atmosphere, and spatial dynamics, that shape immersive perception. The model is static, but immersion is not. Immersion unfolds as a dynamic process in real time. The model shows the components of immersion, yet it does not explain how these dimensions interact during viewing or how they sustain immersion over time.

This section places cinema alongside virtual reality and psychedelic experience to highlight its unique path of sensory resonance. Unlike other media, film maintains immersion by reshaping the rhythm of attention and the focus of perception within a finite audio-visual frame. Building on this, the concept of *the perceptual resonance loop* is proposed. It frames immersion not as a single trigger but as an ongoing process that integrates sensory, emotional, and cognitive dimensions. The next section examines how this loop operates in practice.

Immersive Modalities as Detail-Density Mechanisms: VR, Psychedelics, and Film

Virtual reality (VR), psychedelic experiences, and cinematic immersion may appear fundamentally distinct. However, they share structural similarities in how they induce altered states of perception. All three operate by amplifying *detail density* and increasing the number of *sensory entry points*, thereby facilitating a shift from a logic-dominated perception of the world to a fully synchronized, sensorially constructed reality.

In VR, spatial realism is created by overwhelming sensory information. Visuals are projected close to the retina, sound is delivered through surround audio, and bodily movement is tracked in real time, placing the user's body into an alternate space. This saturation doesn't just simulate an environment. It makes the brain accept the constructed space as real, creating an "embodied re-location" through excess information. According to Slater and Wilbur (1997), immersive virtual environments manipulate sensory input to make the virtual space feel real. They claim that immersion is achieved by manipulating the sensory cues presented to the user, creating a convincing and interactive environment.

Similarly, psychedelics such as LSD and psilocybin operate through the reconfiguration of sensory filters. Psychedelics reduce activity and connectivity within the brain's default mode network. This effect is strongest between the medial

prefrontal cortex and the posterior cingulate cortex. The reduction is linked to a state of “unconstrained cognition” (Carhart-Harris et al., 2012). This state has been interpreted as one in which perception becomes less constrained and more vivid. Perception becomes vivid and unfiltered: colours intensify, sounds sharpen, and rhythm gains an emotional texture. This altered state does not simply generate hallucinations, it reconstructs reality without relying on linguistic logic. In this state, an enhanced field of consciousness emerges, governed by emotional flow and sensory feedback.

Film works within more structured aesthetic constraints yet it achieves a comparable effect. It does so through precise control of editing rhythm, visual density, and audio design. Unlike VR or psychedelics, cinema does not remove the viewer from their surrounding sensory environment but reconfigures their perception of attention. Film form directs the viewer’s focus through strategies such as montage, framing, and sound design, shaping how details are perceived and experienced. In this way, films isolate and intensify otherwise mundane details, transforming them into emotionally charged nodes of attention. Rather than asking the viewer to interpret, film compels them to feel their way in. The cinematic frame becomes an intentional filter, focusing and rhythmically guiding the viewer’s attention toward selected details.

These three mechanisms share the same basic structure. The intensity of immersion can be understood as arising from two interrelated dimensions: the detail density and the viewer’s consciousness reception rate. Each sensory mode shapes the link between what is perceived and how fast it is processed. Together, these dynamics explain how films increase the viewer’s sense of being immersed. Rather than relying solely on narrative or semantic content, these systems operate by saturating the perceptual field and synchronizing the viewer’s attention, thereby constructing an intensified state of experiential presence. In this study, detail density refers to the complexity and layering of visual, sonic, and spatial elements in film, including the richness of imagery, the stratification of sound, and the density of spatial design. Consciousness

reception rate refers to the viewer's sensitivity to these details, including their emotional responsiveness and the degree of attentional focus.

Mechanism of Resonance: The Perceptual Resonance Loop

After defining this two factors, it is important to note that immersion is not only a matter of input and output but also a shift in cognitive mode. A useful comparison can be made with the experience of deep reading of a novel. At first, the reader focuses on decoding language and following plot and structure. But as reading continues, words begin to generate vivid mental imagery. Attention moves away from semantic logic and toward a state of active presence. In this phase, often called mind-wandering, attention is not lost. Rather, it is the moment when consciousness works with sensory rhythms to build a shared, secondary reality. This is a perceptually coherent world, related to Tolkien's idea of a "secondary world" (2008), albeit that Tolkien referred specifically to the fantasy genre. Arguably, whatever the genre, fictional worlds sustain immersion through internal consistency, emotional resonance, and rhythmic engagement.

In the same way, cinematic immersion is not a matter of passive absorption. It arises from the interaction between detail density and consciousness reception rate. It also comes from a shift in perception, moving from cognitive interpretation to embodied resonance. In this shift, viewers move from following narrative logic to engaging with sensory flow, recalling Deleuze and Guattari's idea of becoming (1987), where reality and the self are not fixed but in constant transformation. Immersion, therefore, is not entry into a finished world but participation in its rhythmic unfolding. It is a dynamic state that evolves over time. To explain how this process is sustained, the following introduces the perceptual resonance loop, a concept that models immersion as ongoing feedback between film and viewer. It addresses the question: "How is immersion sustained?"

This process can be understood as a three-stage perceptual resonance loop. First, initial triggering through sensory engagement. Second, rhythmic participation through embodied synchronization. Finally, the co-generation of a shared reality.

First, the loop begins with perceptual input, encompassing sensory stimuli such as images, sounds, and patterns of pacing. These inputs are immediately filtered through the parameter of detail density, defined here as the complexity and layering of visual, sonic, and spatial elements. A scene's visual density may arise from saturated colours, intricate lighting, or compositional layering. Its sonic density from multi-layered soundscapes, nuanced ambient noise, or dynamic musical scores. Its spatial density from the arrangement of objects, depth cues, and the way space invites or resists bodily orientation. High overall density comes from the combined richness of visual, sonic, and spatial elements, generating an abundance that can immerse the viewer through the sheer force of sensory input. A scene may also lower visual and sound density yet keep overall density high. It can do this by layering spatial rhythm in deliberate ways. Through such restraint, it can achieve an equally strong resonance.

In parallel, perceptual input is shaped by the viewer's consciousness reception rate, which reflects the degree to which one is cognitively and affectively receptive to stimuli. This rate depends on several personal factors. These include attentional capacity, emotional sensitivity, and prior experience. A trained film editor might notice editing logic or shot transitions without effort. A casual viewer, by contrast, might respond only to emotional tone or music.

The interaction between detail density and consciousness reception rate yields a distinct degree of immersion. This stage captures the intensity and depth of the viewer's engagement. Importantly, high immersion does not necessarily require plot comprehension. A viewer may become immersed in an experimental or non-linear film, not because of conventional plot cues, but because visual and sonic rhythms synchronize with the body and guide attention. These forms of density also map onto three experiential dimensions: cultural echo, where familiar cues or expressions

trigger shared memory; affective atmosphere, where layered sounds and rhythms generate emotional resonance; and spatial dynamics, where light, shadow, and spatial arrangement guide embodied orientation.

Second, once immersed, the viewer enters a state of rhythmic participation, in which their physiological rhythms begin to mirror the film's temporal structure. Viewers may unconsciously hold their breath, adjust their posture, or slow their blinking rate in alignment with a scene's pacing. For instance, a prolonged tracking shot or a slow camera pan can induce a corresponding stillness in the viewer's own body, deepening the alignment between spectator and screen.

This embodied synchronization gives rise to resonance, a state in which the viewer's nervous and emotional systems become attuned to the film's affective frequency. Crucially, this resonance may occur independently of cognitive interpretation. As mentioned, one may not fully understand why a character is crying. Yet, the scene can still evoke strong emotions. This happens because the film's audiovisual rhythm bypasses cognition. It triggers affective resonance directly.

Finally, this resonance helps create a shared reality. The viewer does not only interpret the cinematic world but begin to inhabit it. In doing so, they co-generate a perceptual field that can extend beyond the film itself. For example, after watching *Blade Runner*, even walking down an ordinary city street in the real world may feel different. The viewers' perception has been shaped by the film's aesthetic. They might unconsciously sense and interpret the street through cyberpunk colour, atmosphere, and etc. This shift does not come from the narrative content but from the film's perceptual rhythm, which leaves a lasting imprint on sensory experience.

This process does not end with one moment of resonance. Each act of perception feeds back into the viewer's awareness. This shift in awareness then changes how they receive later sensory details. Immersion is not fixed, it is recursive, a looping flow where the detail density and the consciousness reception rate keep interacting.

This interaction produces new layers of resonance, again evoking Deleuze and Guattari's (1987) idea of becoming, where experience continues through ongoing transformation rather than static absorption.

3.4 Data Analysis: Tools from Visual Grammar & Multimodality

To investigate how the six visual elements contribute to world-building in the cyberpunk films *Blade Runner* and *Blade Runner 2049*, and how these visual elements along with the auditory dimension collectively generate immersive perception through sensory resonance, this study draws on tools from social semiotics and multimodal analysis. These tools support the exploration of the three key dimensions of the multisensory resonance model: cultural echo, spatial dynamics, and affective atmosphere.

Kress and van Leeuwen's (2006) theory of visual grammar helps unpack how images construct meaning beyond narrative. Their framework highlights how visual signs are never neutral but always culturally coded. Elements like colour, direction, or framing carry different meanings depending on the cultural and historical context. This supports the analysis of *cultural echo*, where viewers resonate with images by recognizing symbols, ideologies, or collective memories.

Visual grammar also offers a set of compositional resources to explore *spatial dynamics*. These include vectors, gaze, salience, framing, and information value. Vectors and gaze trace the direction of perceptual flow, guiding the viewer's eye across the frame. Framing marks the boundaries of space and determines inclusion or exclusion, influencing how space is perceived. Salience highlights focal points through contrast or relative size, guiding the viewer's attention to the most important elements in the frame. Information value assigns meaning to culturally resonant spatial positions such as left-right or top-bottom, guiding how meaning is interpreted within the visual composition. These visual elements help direct attention, define

power, and set boundaries within the film world. Through them, the viewer develops a sense of orientation and spatial presence.

However, immersive world-building in cinema is not only visual. It is multisensory by nature. To address this, the study also draws on Kress and van Leeuwen's (2001) theory of multimodal analysis. Extending their model to cinematic immersion contexts. This approach allows for examining how image, sound and bodily perception converge within specific contexts of viewing. It also enables the exploration of how aural elements such as dialogue, ambient noise, sound effects, and musical score interact with visual rhythm. These combinations help shape *affective atmosphere* by generating emotional resonance, mood, and atmosphere consistency across cinematic space.

Based on these tools and dimensions, this study builds a layered perceptual framework, which will be applied in the findings chapter. The macro layer examines how cinematography, art direction, and production design construct the world's geopolitical, ecological, and cosmological conditions. The meso layer, centred on mise-en-scene, explores political hierarchies, economic flows, cultural rituals, class systems and spatial politics. The micro layer, composed of set design and costuming, focuses on individual spaces and affective environments. They work together to investigate how six visual elements contribute to world-building. Across all three layers, aspects of spatial dynamics and cultural echo appear to varying degrees, shaping how the viewer interprets meaning and navigates space within the film world.

Additionally, a perceptual rhythm layer examines how aural elements (score, dialogue, ambient noise, and sound effects) activate sensory resonance. This layer directly corresponds to the affective atmosphere dimension of the multisensory resonance model, revealing how mood and emotional texture emerge from multimodal interaction. They work together to investigate how these visual elements collectively generate immersive perception through rhythmic and sensory resonance.

To clarify the operational structure of the analytical model, Table 1 systematically maps the key elements, analytical focus and dimensions across the four perceptual layers.

Layer	Key Elements	Analytical Focus	Dimensions
Macro Layer	Cinematography, Art Direction, Production Design	Geopolitical, Ecological, and Cosmological Conditions	Cultural Echo, Spatial Dynamics
Meso Layer	Mise-en-scene	Political Hierarchies, Economic Flows, Cultural Rituals, Class Systems and Spatial Politics.	Cultural Echo, Spatial Dynamics
Micro Layer	Set Design, Costuming	Individual Spaces and Affective Environments	Cultural Echo, Spatial Dynamics
Perceptual Rhythm Layer	Score, dialogue, ambient noise, sound effects	Mood and Emotional Texture through Multimodal Interaction	Affective Atmosphere

Table 1. Analytical mapping of the layered perceptual framework.

In sum, this study uses a cross-layered sensory architecture. It explores the macro, meso, micro, and perceptual rhythmic layers to examine how the six visual elements collectively generate immersive perception through sensory resonance. Through this approach, the study addresses the research question by showing how immersive cinematic worlds are dynamically generated as fields of multisensory resonance.

CHAPTER 4. FINDINGS

This chapter applies the layered perceptual framework from Chapter 3 to the case studies of *Blade Runner* and *Blade Runner 2049.* The aim is to examine how six visual elements function: cinematography, art direction, production design, mise-en-scene, set design, and costuming. These elements operate at the macro, meso, and micro layers. They also function within the perceptual rhythm layer to build immersive cinematic worlds. Through close analysis of examples, the study explores not only how each element contributes to world-building but also how they interact to create immersive perception through sensory resonance.

The analysis is organised into four sections. Section 4.1 investigates the macro layer, focusing on how cinematography, art direction, and production design establish geopolitical, ecological, and cosmological dimensions. Section 4.2 examines the meso layer, with mise-en-scene as the central element, analysing political hierarchies, economic flows, cultural rituals, and class systems. Section 4.3 turns to the micro layer, exploring how set design and costuming create intimate spaces and affective environments. Across all three layers, spatial dynamics and cultural echo appear to varying degrees. Section 4.4 addresses the perceptual rhythm layer, analysing how aural elements synchronise with visual rhythms to sustain affective atmosphere.

Through this structure, the chapter shows how immersive cinematic worlds emerge as dynamic fields of multisensory resonance, sustained through the interplay of visual density (cultural echo), sound design (affective atmosphere), and embodied perception (spatial dynamics).

4.1 Macro Layer: Constructing Cultural Foundations through Cinematography, Art Direction, and Production Design

Within the layered perceptual framework, the macro layer of visual world-building operates as both a spatial structuring and a cultural echo system. Through cinematography, art direction, and production design, foundational cultural tonalities are not only illustrated but sensorially inscribed. These elements construct geopolitical, ecological, and cosmological conditions as visual codes, enabling viewers to resonate with shared cultural memories and symbolic meanings while navigating immersive environments that function as cultural landscapes.

4.1.1 Geopolitical Conditions: Visual Landscapes and Spatial Power

As the first part of the macro layer analysis, this section examines the geopolitical underpinnings of world-building, understood here as the visual construction of spatial order through city form, the operation of transportation systems, and the cinematic construction of vertical space. These features are not simply "backgrounds", but active manifestations of world logic and cultural structure. Together, they establish the perceptual foundation through which viewers are invited to enter and navigate the fictional universe.

In *Blade Runner*, director Ridley Scott and production designer Lawrence G. Paull constructed a vertically stacked, congested, and pollution-choked Los Angeles. Huge corporate pyramids and towers rising over close-knit shanties embodies the core cyberpunk aesthetic of "high tech meets low life". This design reflects what scholars identify as the film's postmodern spirit in visual form. As Aberg (2021) notes, it was built around a core philosophy of "retro-fitting" and "accumulated progress", in which older buildings were not demolished but layered upon, expanded, and enclosed by new structures. As a result, elements from multiple eras and styles coexist within a single urban space.

Art director David Snyder translated this vision into the material textures of the streetscape: flickering neon billboards, decaying alleys, pseudo-Asian architecture,

and neo-industrial ruins blend into a “cultural hybrid landscape” (see Figure 1). This aesthetic strategy produces temporal disjunction. Historical continuity is fractured and reassembled into hybrid forms. These familiar signs generate what this study terms cultural echo. In this way, the viewer recognizes fragments of memory, neon from modern cities, exoticized Asian motifs, ruins of industrial decline, and accepts the hybrid city as real. They are invited to accept a “post-authentic” world where authenticity is no longer stable. As Banet-Weiser (2012, as cited in Littler, 2013) argues, authenticity has become a mediated and commodified construct, continually reshaped through cultural signs and hybrid forms. Building on this view, the study refers to the visual landscape of *Blade Runner* as “post-authentic.” Here, the very sense of reality operates as a manufactured illusion of consumer culture, an illusion that viewers willingly accept as real.

Figure 1. Streetscape. *Blade Runner*, dir. Ridley Scott.

This logic extends beyond architecture and streetscapes to the film’s objects and technologies. Snyder’s art direction materializes Paull’s production design in the eccentric electronics, bulky vehicles, and impractical Voight-Kampff machine. As Aberg (2021) notes, these cannot be explained simply by the film’s 1980s context. Rather, they reflect the narrative conceit that advanced technology and funding have shifted off-world, leaving those who remain on Earth to make do with outdated machines. Rendered heavy, dusty, and awkward, these props embody retro-futurist decay.

Here, cultural echo again shapes perception. The weight of old electronics, the dust of abandoned machinery, and the awkwardness of outdated vehicles all resonate with

viewers' memories of past technologies. These signs activate shared cultural experience, anchoring the futuristic world in textures of decline that feel familiar and sustain the film's central paradox: progress and decay coexist. Old buildings receive new additions, outdated machines are adapted for reuse, and the world becomes increasingly hybrid. Yet this accumulation does not result in renewal. Instead, it produces an environment filled with obsolete, cumbersome objects and a pervasive sense of ruin.

Beyond the static textures of architecture, movement through the city is equally encoded with ideological meaning. Transportation systems function not as utilitarian networks but as visual metaphors of power distribution. In *Blade Runner*, the most iconic transportation symbol is the floating advertising blimp (see Figure 2). Drifting slowly through the skies, it implants corporate-state ideology from above, saturating urban space with consumerist commands. The promise of "a chance to begin again" in the off-world colonies extends the frontier logic of extractive capitalism into outer space. These blimps carry no passengers. Instead, they dominate the city's visual rhythm through their slow, looming motion.

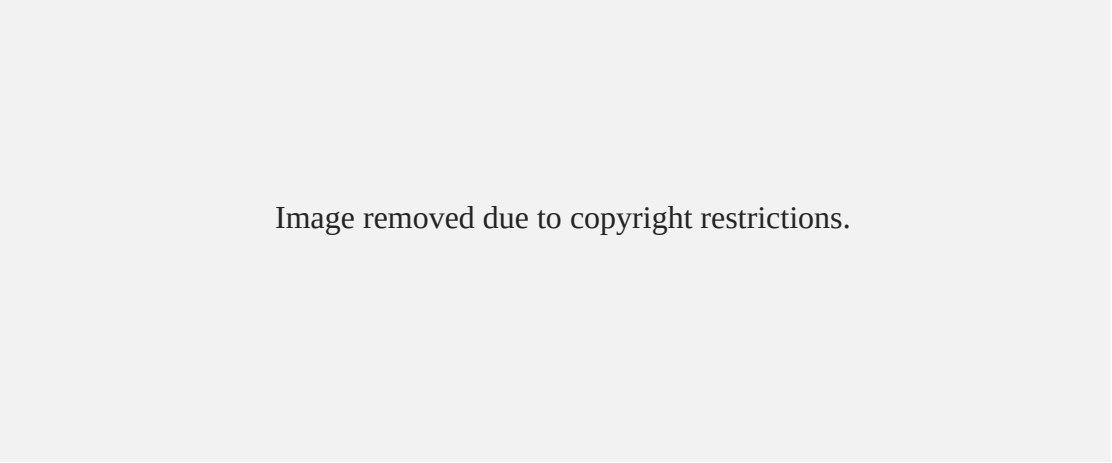

Figure 2. The advertising blimp in nighttime cityscape. *Blade Runner*, dir. Ridley Scott.

If urban movement encodes ideology at the level of infrastructure, the cinematic construction of vertical space, shaped by cinematographer Jordan Cronenweth,

defines it at the level of perception. The camera does not simply record space. It frames, directs, and redistributes spatial power. At the beginning of *Blade Runne*r, Cronenweth's cinematography cuts from sweeping aerial views of Los Angeles to an extreme close-up of an eye（see Figure 3. The iris, reflecting burning towers, becomes a miniature screen. It visually links the body's organ of perception to the city's industrial machinery.

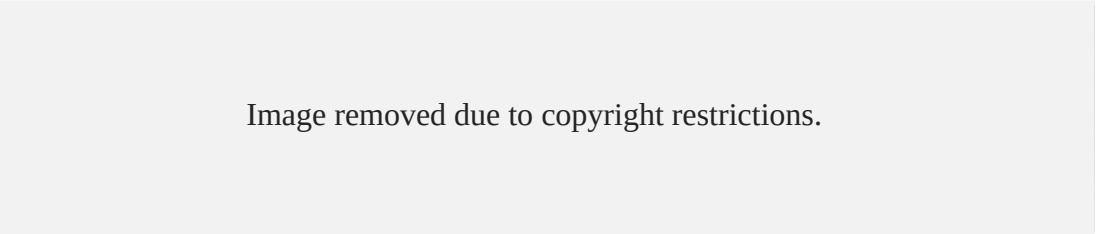

Figure 3. Overhead cityscape with industrial flames and Eye close-up reflecting city flames. *Blade Runner*, dir. Ridley Scott.

This moment exemplifies what Deleuze (1986) calls the affection-image. It conveys pure intensities of feeling, presenting sensation in its own presence beyond the demands of narrative logic. The reflection of industrial flames within the iris transforms the eye from a sign of human warmth into a cold, mechanical, and uncanny surface, evoking sensations of estrangement and threat. Meanwhile, the image overwhelms the screen, creating a pressure of being looked at. Viewers, confronted with the cinematic eye, instinctively relate it to their own organ of sight. As Sobchack (1992) argues, cinema addresses not only the mind but the viewer's body, establishing a system of communication grounded in embodied perception. Here, that address is literalized, producing an embodied resonance in which vision is felt as bodily contact. Thus, this sequence demonstrates spatial dynamics. The rapid shift between aerial surveillance and bodily close-up positions the viewer within the very hierarchy the film depicts. Instead of observing from a neutral distance, the viewer is pulled into the vertical logic of power, oscillating between the system's omniscient gaze and the vulnerability of embodied vision.

The subsequent overhead shots, hovering over refineries, flaming smokestacks, and the Tyrell corporation ziggurat (see Figure 4), further enforce this dynamic. What should feel like transcendence instead turns into surveillance. The sky, which often symbolizes openness, infinity, and hope, here functions differently. In *Blade Runner*, aerial shots reveal burning smokestacks and Tyrell's ziggurat, showing that the skies are already occupied by structures of control. The higher one looks, the less one sees freedom and the more one enters the domain of power.

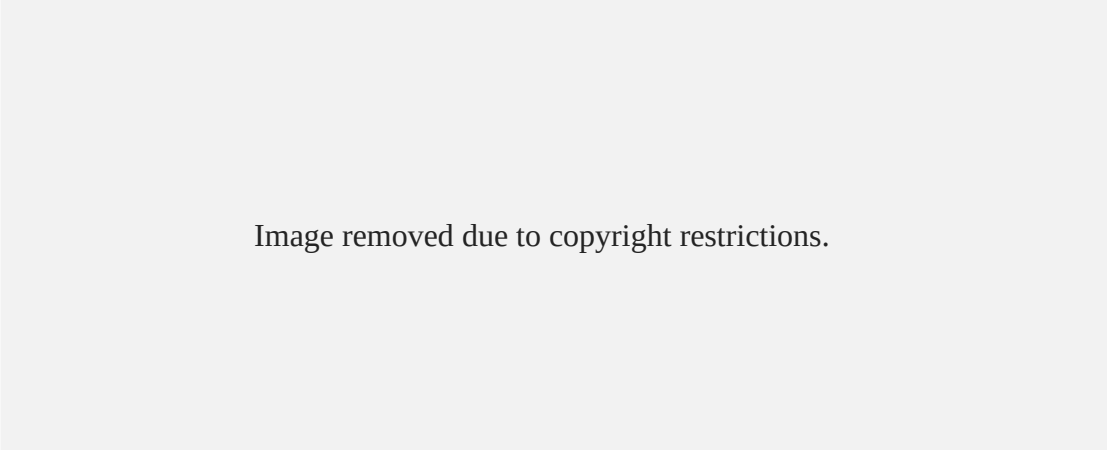

Figure 4. Overhead view of refineries, smokestacks, and Tyrell corporation ziggurat. *Blade Runner*, dir. Ridley Scott.

In contrast, *Blade Runner 2049*, directed by Denis Villeneuve with production design and art direction by Dennis Gassner, envisions a Los Angeles defined by austerity and brutalist form. Unlike the leaking and overcrowded environment of *Blade Runner*, Villeneuve's city projects imperviousness and authority through weight, severity, and scale. As Aberg (2021) observes, this "philosophy of brutality" shifts the cyberpunk world from dramatizing ruin to asserting endurance. The result is an urban landscape less cluttered and less heterogeneous than before, where monumental forms dwarf the individual. Lunning (2018) further asserts that it is "one of the severely rational mode of modernist minimalism" (p. 9).

This aesthetic is exemplified in the design of the LAPD building, a massive inverted cone that enforces authority through austere geometry, and in K's apartment,

described as “depressingly austere,” stripped of ornament and colour (Aberg, 2021). Likewise, the once eclectic streetscapes of 1982 give way to sterile LED billboards and holographic projections, moving the city from a postmodern collage toward a brutalist severity. These images resonate through cultural echo: they draw on familiar symbols of modernist architecture and authoritarian monuments. Viewers recognize these fragments from cultural memory and experience them as credible signs of futurity.

Further examples of this visual logic can be seen across the extended geography of *Blade Runner 2049*: the sprawling landfills of dystopian San Diego, the orange haze that shrouds the radioactive ruins of Las Vegas, the cavernous archive chambers within the Wallace corporation, and the massive sea wall erected to guard Los Angeles from the rising Pacific tides（Aberg, 2021）. Together, these spaces magnify the film’s philosophy of brutal built environments, projecting endurance and control rather than diversity or openness.

In *Blade Runner 2049*, the blimps of the original film are replaced by aerial surveillance drones and drone-like camera perspectives. Their presence is grounded in concrete sequences: at Sapper Morton (Dave Bautista)’s protein farm, K releases drones from his spinner to scan the farmstead, producing images that double as the viewer’s own perspective; in San Diego, Wallace’s assistant Luv (Sylvia Hoeks) commands drones to fire upon scavengers, turning surveillance into direct violence; and in the ruins of Las Vegas, K deploys drones to navigate the dust-filled void, where their point-of-view shots construct the geography of absence (see Figure 5).

Figure 5. The view from surveillance drones shows surveillance-oriented visual framing. *Blade Runner 2049*, dir. Denis Villeneuve.

Across these moments, the drones' high-angle perspectives echo surveillance, tracking individuals along vertical planes and penetrating spaces inaccessible to the human body. This apparatus does more than symbolize control: it embodies an algorithmic authority that decides who moves, who is seen, and who is blocked. Spatial freedom is no longer defined by geography, but by access to visual pathways, as power lies in the architecture of relentless observation. This constitutes what could be described as a visual lockdown of flow. As Lefebvre (1991) notes, the organisation of urban space is not neutral. It serves as a representational mechanism through which ideology is materialized and reinforced. In this sense, transportation functions not only as mobile infrastructure but also as an extension of the city's spatial power structure.

This dynamic exemplifies spatial dynamics. The drone's perspective alters the viewer's bodily positioning in space, suspending them between ground-level vulnerability and mechanical omniscience. Instead of inhabiting space through human perception, the viewer is pulled into the logic of vertical control, experiencing movement and visibility as contingent on the machine's gaze.

Deleuze (1986) highlights the affective dimension of cinematic space. His notion of the any-space-whatever describes spaces stripped of narrative anchoring and rendered as pure perceptual states. The drone perspectives in *Blade Runner 2049* produce precisely such spaces: at the protein farm, in the San Diego wastelands, and in the dust-shrouded ruins of Las Vegas, the drone's gaze suspends narrative continuity and displaces human sensory subjectivity. What emerges is a depersonalized perception, where the spectator is compelled to share the machine's vision. In this sense, the drone POV does not simply represent surveillance but generates an any-space-whatever in which space itself becomes affective, uncertain, and estranging.

The cinematography of *Blade Runner 2049*, led by Roger Deakins, is characterized by expansive wideshots and minimalist compositions. Most establishing shots are framed

as long shots, positioning the actors as small active figures within vast, static, and monumental proscenium-like spaces (Lunning, 2018). Thus, K is frequently framed as a lone figure within vast ruins. According to Lunning (2018), these long perspectival shots are paired with long shots that obscure the vanishing point, producing shallow, flattened backgrounds. Rather than creating linear depth, they generate what might be called a "flattened depth," where the viewer perceives the accumulation of objects and the overload of information.

In the San Diego district sequence of *Blade Runner 2049*, Roger Deakins' cinematography combines occlusion, scale contrast, and wide shots to emphasize how K's presence is swallowed by the environment. As Lunning (2018) notes, the scale of these ruins is deliberately magnified to diminish the figure of the replicant, making him appear small and fragile within the overwhelming magnitude of the now-absent human. At first, a massive piece of industrial wreckage on the left side of the frame blocks nearly half of the image, creating a sense of spatial oppression. As the camera slowly pans in long shot, K emerges from behind the debris, but his figure appears small and passive (see Figure 6). Finally, the camera settles into a static wide shot. Piles of waste dominate the screen, and K is reduced to a tiny, insignificant point within the frame (see Figure 6). In this moment, the framing of the sky becomes a geopolitical gesture. This visual approach uses the language of cinema to express a core idea of geopolitical power: that it operates by controlling territory and resources. Here, that control is shown through confined spaces and a clear environmental hierarchy. Rather than symbolizing transcendence or openness, the sky is visually confiscated, cut off, narrowed, and subordinated to industrial debris. Space ceases to be background and instead becomes a sensory and existential foreground, embedding the viewer in a geopolitics of confinement.

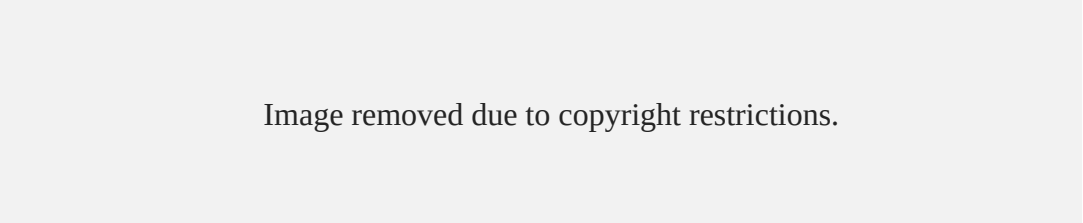

Figure 6. K is walking in the San Diego district. *Blade Runner 2049*, dir. Denis Villeneuve.

At the same time, the gradual shift from slow panning to stillness produces what Deleuze (1989) calls a "time-image." In this moment, the perception–action chain is broken, and narrative flow is suspended. The viewer's attention no longer follows action but is redirected to the pure materiality and optical presence of space. The gaze is compelled to linger on the textures and volumes of the scene: rusted metal, mountainous waste, and a cold palette of colour. Space, once a narrative backdrop, becomes a sensory and existential foreground, generating a contemplative and embodied sense of oppression.

4.1.2 Ecological Atmosphere: Climate Aesthetics and Sensory Rhythms

As the second part of the macro layer analysis, this section examines the ecological atmosphere of world-building, understood here as the interplay of climate systems, chromatic palettes and lighting schemes. These elements are not just matters of style as much as key ways to show how the fictional world is shaped, how existence is structured, and how meaning is oriented.

In *Blade Runner*, the ecological vision revolves around the oppressive circulation of urban power. Under the guidance of production designer Paull, the film's environment was conceived as one dominated by incessant rain and toxic smog, making climate itself a designed feature of dystopia. This chromatic night-rain directly reflects the ecological anxieties of the early 1980s, particularly fears of acid rain and urban pollution at a planetary scale. As Park (2012) notes, the film depicts a

Los Angeles “filled with waste, pollution, and dirt” where “a corrosive rain falls from the polluted clouds,” revealing an aesthetic of decay and disintegration (p. 95). In auditory terms, the normalized low-frequency sonic environment further contributes an atmosphere that is both oppressive and hollow yet carries a portentous sense of fate. It makes the viewer feel not only the physical presence of the city but also of constrained existence, even if we cannot describe it fully. These ecological textures resonate as cultural echo: they recall the collective anxieties of acid rain, smog, and environmental decay in the late twentieth century, allowing the fictional Los Angeles to feel both alien and historically familiar.

If rain and smog define the film’s climate systems, the chromatic palette translates this dystopian ecology into visual form. Under production designer Paull’s overarching design, art director Snyder’s material execution, and Cronenweth’s cinematography, the palette takes on a distinctive look of low saturation and high contrast. Yellow incandescent light often cuts through cyan and teal-toned air, producing a tactile tension that presses against the viewer’s perception. This logic is exemplified in aerial views of Los Angeles, where the cyan haze clashes with illuminated windows and dark facades (see Figure 7). Here, atmosphere is not a neutral backdrop but a coded force, layered, compressed, and imbued with symbolic oppression. As Deleuze (1986) suggests, cinema can register pure intensities that exceed narrative explanation. In *Blade Runner*, colour and light operate precisely in this register: they function not merely as attributes of objects but as affective energies that shape sensory experience. The stark contrast between yellow and cyan evokes an embodied sense of suffocation, making dystopian space felt as immediate intensity rather than as narrative description.

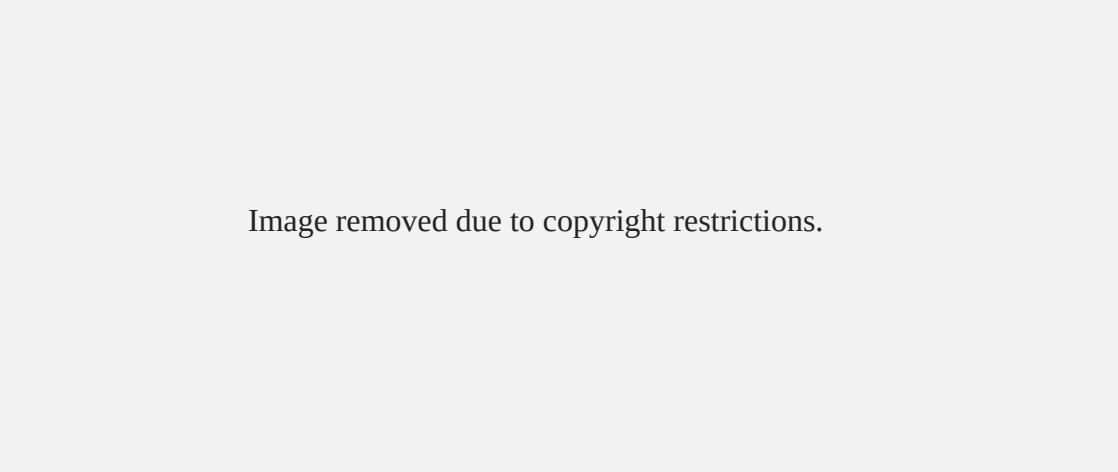

Figure 7. Nighttime cityscape shows low-saturation, high-contrast lighting. *Blade Runner*, dir. Ridley Scott.

Beyond chromatic palettes, the film's lighting schemes further shape ecological atmosphere through embodied perception. These lighting strategies were carefully orchestrated by cinematographer Cronenweth, whose use of diffused sources and shadow grids contributes to the film's immersive atmosphere. Such effects can be explained through Marks' (2000) concept of haptic visuality, where vision operates like touch, and visual textures activate the viewer's embodied memory. This is most apparent in Dr. Eldon Tyrell (Joe Turkel)'s office (see Figure 8), the use of dark, iridescent hues and warm golden illumination operates as a sensory interlock that bypasses linguistic cognition and evokes bodily responses.

Figure 8. Dark iridescent hues and warm golden lighting in Tyrell's office interiors. *Blade Runner*, dir. Ridley Scott.

Against the cold haze and cyan-toned gloom of the city outside, this warm glow creates a striking rupture. It symbolizes a "privileged ecology" reserved for elites, while simultaneously exposing itself as an artificial spectacle, a fragile radiance

within a decaying world. The quasi-sacred aura of this light elevates Tyrell to a godlike status, befitting his Faustian/Frankensteinian appropriation of the powers of creation, but it also underscores the illusionary nature of such power. With no trace of greenery anywhere in the film, this so-called "ecological" aesthetics is in fact an urbanism run rampant, a sensory encoding of collective trauma rather than natural life.

In contrast, the ecological vision of *Blade Runner 2049* shifts toward a drought stricken, desertified climate. Acid rain has given way to snow, and the planet is described as moving toward an "ice age". According to Manolachi (2025), *Blade Runner 2049* places environmental collapse at the centre of its vision. The film introduces images of abandoned hives and dense smoke, evoking a landscape of decay. Natural resources appear not as common goods but as luxuries, highlighting conditions of scarcity and deepening inequality. Aberg (2021) further observes that vast desolation and emptiness are destined to follow the collapse of the global environment.

This vision of desolation and emptiness materializes in entire San Diego districts reduced to landfills, in the monumental seawall built to resist rising sea levels, in the artificial farmland that replaces natural ecosystems, and in the ruins of Las Vegas shrouded in orange haze. This orange haze can be read as a stark marker of climate collapse. Here, colour operates not as mere decoration but as a semiotic language of pain and desiccation. As Marks (2000) reminds us, such chromatic atmospheres are not only visual but haptic, impressing themselves upon the viewer's body as a texture of suffocation and unease, thereby registering the historical wound of a failed civilization. This wound does not remain abstract. It resonates as cultural echo, recalling collective memories of ecological disaster, nuclear fallout, and urban ruin. The familiarity of these traumas anchors the fictional landscape in a shared cultural past, allowing the vision of collapse to feel both uncanny and believable.

Through chromatic contrasts, the film constructs a spatial taxonomy of collapse and control. Las Vegas is shown as a barren, post-human ruin. Once a site of human excess, now a landscape marked by ecological decay and the end of human presence. Los Angeles, by contrast, appears as a cold, overcoded metropolis, where layers of technological systems, institutional control, and informational flows compress individual freedom and sensory space (see Figure 9).

Image removed due to copyright restrictions.

Figure 9. Las Vegas and Los Angeles as contrasting ecological zones. *Blade Runner 2049*, dir. Denis Villeneuve.

Building upon this chromatic-spatial differentiation, the film's palette further evolves into a distinct formal strategy. Guided by Gassner's production design and rendered through Deakins' cinematography, the film relies not only on hybrid palettes but also on broad monochromatic expanses, often dominated by blue, purple, orange, or yellow (Mu, 2022). Each carrying an affective charge that exceeds representational meaning. Beyond the previously discussed orange haze of Las Vegas, other chromatic registers further articulate *Blade Runner 2049*'s dystopian ecology. In Los Angeles, the urban core is dominated by cyan and stony palette, its cold tonality amplifying a sense of mechanical endurance (see Figure 10). By contrast, intimate moments such as the giant hologram of Joi are saturated in purple and blue, producing a dreamlike yet uncanny aura of virtual affection (see Figure 10).

Image removed due to copyright restrictions.

Figure 10. The cyan-toned Los Angeles cityscape and the saturated purple-blue hologram of Joi. *Blade Runner 2049*, dir. Denis Villeneuve.

As Mu (2022) observes, the large-scale use of uniform colour blocks produces a "defamiliarization" effect, distancing the spectator from ordinary reality while intensifying the film's sci-fi atmosphere. In Deakins' cinematography, these chromatic fields press against the viewer's perception as affective forces. The overwhelming orange of the desert and the cold cyan of the metropolis generate embodied responses of suffocation, estrangement, and awe. In this sense, *Blade Runner 2049* transforms colour into a sensory syntax, where chromatic palettes operate as affective landscapes, coding ecological death, social division, and post-human affect.

Lighting schemes in Niander Wallace (Jared Leto)'s office intensify the affective architecture of its post-human world. Cinematographer Deakins adopts a controlled approach: golden beams cut through vast shadows to sculpt space into an altar. In Wallace's debut, rather than illuminating him directly, the beams function as vectors, directing the viewer's gaze across the frame and positioning him at the symbolic centre (see Figure 11). The effect is ritualistic. Light does not function as background atmosphere but as an active element of visual grammar to highlight power and meaning.

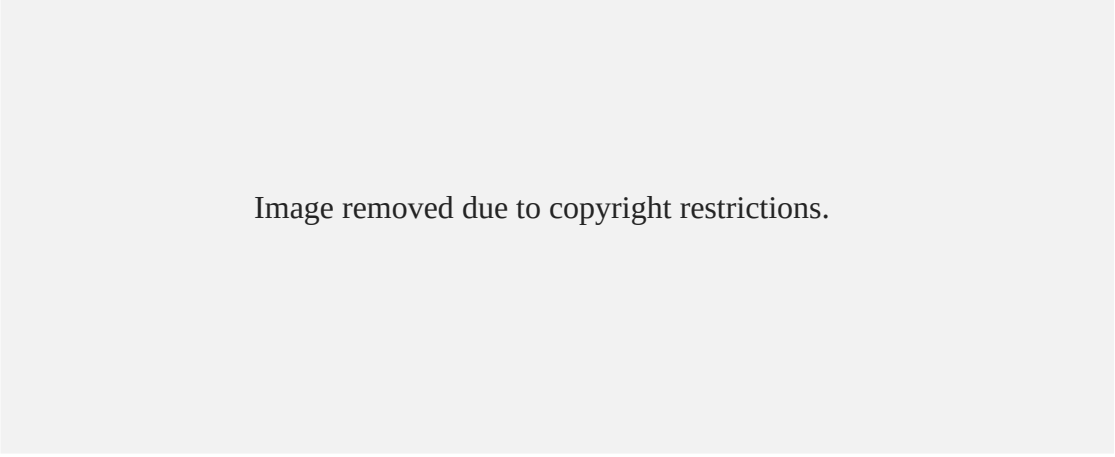

Figure 11. Golden beams in Wallace's office sculpt an altar-like space, placing him at the symbolic centre. *Blade Runner 2049*, dir. Denis Villeneuve.

Wallace himself often appears as a silhouette, visible yet unreachable. He occupies the position of salience, the focal element, yet framed in shadow that denies full access. His body is placed at the top of the vertical axis, a high-value zone that encodes symbolic power. Compared to the warm, decaying sunlight of Tyrell's pyramid in *Blade Runner*, the lighting of Wallace's interiors is colder, more abstract, and rigorously controlled. It reflects synthetic divinity, a constructed sense of godhood shaped by power and control.

Within this space, Luv appears as a darkened figure, often swallowed by the backlight and the vast emptiness around her. Her body is partially erased by the spatial design, visually expressing her lack of autonomy. The viewer does not simply observe her oppression, we feel it through light and space. Rather than advancing the plot, these visual choices shape the viewer's emotional response at a bodily level. Here, light becomes a tactile presence, one that conveys power, distance, and emotional disconnection. Meanwhile, these lighting strategies exemplify spatial dynamics. The viewer's gaze and bodily perception are choreographed into a hierarchy of dominance and erasure, experiencing light not as neutral illumination but as a spatial force that directs, divides, and controls.

4.1.3 Cosmological Conditions: Systems of Belief and the Theology of Emptiness

As the third part of the macro layer analysis, this section examines the cosmological dimension of world-building. Here the film world is not a neutral backdrop but a perceptual structure where absence and light acquire theological force. Two mechanisms are central: the theology of absence, in which skies and images enact surveillance and loss. And light as synthetic divinity, where illumination no longer signals nature but artificial control. Together, these conditions unsettle the viewer's

sense of higher meaning or divine order, placing them within a cosmology of emptiness.

As mentioned earlier, in *Blade Runner*, massive ad-blimps and floating projections dominate the sky. Here, Los Angeles ceases to function as a city and becomes a visual container watched over by unknown presences. In the sequence of Rick Deckard (Harrison Ford)'s approach to the Tyrell corporation, one of the most iconic images is the endlessly looping face of the Asian woman. Her expressionless features, mechanically repeating gestures of pill-taking, smiling, and swallowing, resemble a postmodern deity: mute, commodified, omnipresent (see Figure 12). This "divine gaze" is not one of grace but of superhuman surveillance.

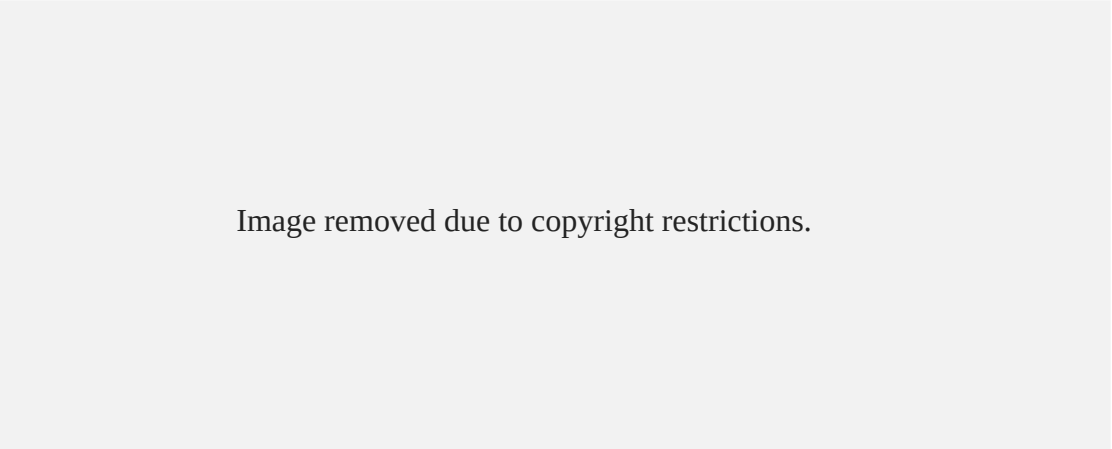

Figure 12. Giant holographic advertisement of an Asian woman. *Blade Runner*, dir. Ridley Scott.

The sequence then cuts sharply to the street level, a bricolage of rain, neon signs, and crowded bodies. Behind Deckard, the screen is saturated with luminous television panels and neon signage, layering over one another in excessive density. These images do not serve narrative function but operate as a visual field of distraction, insistently repeating the promise of consumption and escape. The bright advertisements announcing "A new life awaits you in the Off-world colonies" embody a consumerist utopia that masks urban decay. These images resonate as cultural echo: they reactivate familiar collective memories of consumerist promises,

media saturation, and exoticized femininity, making the cityscape appear both believable and estranging.

As Lunning (2007) observes, each scene of the city is paradoxically staged as a "rich sight", a dazzling phantasmagoria that simultaneously exposes the world as already in decline, pulling the viewer into the very texture of its decay. Drawing on Baudrillard's (1994) notion of simulation, it reflects that in a hyper-mediated society, the real has given way to signs endlessly projecting themselves. In this way, transcendence is not absent but re-inscribed: humanity no longer looks up to the stars, but is gazed upon by consumer images, coldly and without return, a theology of absence.

The lighting system reinforces this reversed cosmology. Overhead spotlights and side-slanted beams leave large swaths of darkness interrupted only by cold spectral glows (see Figure 13). There is no central illumination, no sun, no god, only technological noise from above. In the Bradbury Building sequences, both when J.F. Sebastian (William Sanderson) brings Pris (Daryl Hanna) home and later when Deckard pursues Batty, cinematographer Cronenweth deploys the same strategy of harsh beams piercing the atrium (see Figure 13). These lights cut directly into the interior, dissolving the boundary between exterior and inside, public and private, and turning the space into one of constant surveillance. This is a clear instance of spatial dynamics: the viewer's body is positioned within a surveillant space, compelled to feel illumination not as neutral light but as a force of control.

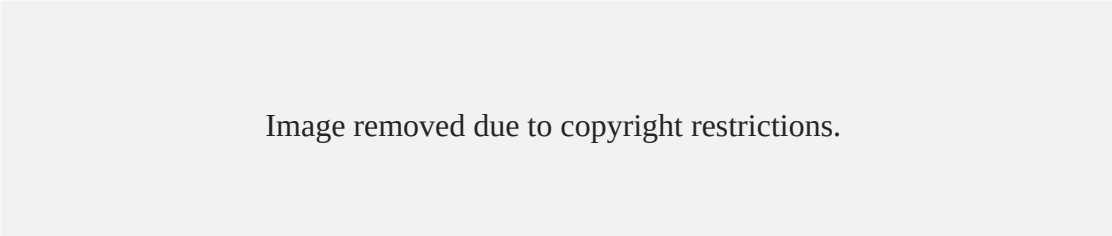

Figure 13. The lighting system in city. *Blade Runner*, dir. Ridley Scott.

Such shafts of light operate as what Deleuze (1986) terms an affection-image: intensities that bypass narrative and strike the viewer as pure sensory force, making the body feel the pressure of illumination as judgment. The result is a heightened sense of vulnerability and exposure, where characters and viewers alike are placed under a synthetic divinity that denies privacy and enforces control.

In contrast to the cold gaze of commodified femininity in *Blade Runner*, *Blade Runner 2049* elevates divine surveillance into an expansive system of metaphysical "voidscapes." If the earlier film offered a veiled black sky, *Blade Runner 2049* unfolds a wide-open horizon, where dust, diffused colours, and ruins extend perception toward an endless sense of absence. The sky does not promise transcendence but instead communicates emptiness and loss. As Aberg (2022) notes, *Blade Runner 2049* expresses profound nihilism and pessimism, while at the same time reflecting a desperate search for human connection in a digital and unstable world. This logic exemplifies what can be termed the theology of absence: divinity is not present as transcendence but reconfigured as surveillance, commodification, and loss.

K is gravely wounded after being attacked by Luv in the ruins of Las Vegas. When he returns to Los Angeles, a pivotal moment arrives when K looks up amidst the ruins to see the enormous holographic Joi (Ana de Armas) (see Figure 14). Yet this is not the Joi of his private memory, but an advertising projection. Her massive image, naked and glowing, gazes down gently, evoking both lost intimacy and synthetic replication. She is both muse and mechanism: a memory of love and a mass-produced emotional commodity. Joi's colossal gaze enacts a paradox: she exists "for you" but never belongs "to you."

Figure 14. K stands on a deserted platform, looking up at a towering holographic advertisement of Joi. *Blade Runner 2049*, dir. Denis Villeneuve.

The visual composition intensifies this paradox. Following Kress and van Leeuwen's (2006) grammar of visual design, the scale difference between Joi and K establishes a hierarchy of presence: Joi occupies the vertical upper field and dominates the frame, while K is reduced to a small figure at the bottom edge, embodying vulnerability. Vectors extend from Joi's downward gaze and pointing hand, directing both K and the spectator into a relation of address that feels intimate yet coercive. The neon glow surrounding her body creates salience, making her image the unavoidable focal point. This spatial dynamic positions K within a field where affection is offered but never reciprocated, forcing the viewer to experience the same tension between intimacy and distance. In this way, the scene materializes the theology of absence, where intimacy itself becomes a site of surveillance and commodified longing. This is a clear instance of spatial dynamics: the viewer's gaze and bodily perception are choreographed into the same hierarchy that subordinates K, making absence and commodified intimacy felt as a spatial experience.

This theology of absence is further reinforced by *Blade Runner 2049*'s lighting system. Unlike the piercing spotlights of *Blade Runner*, cinematographer Roger Deakins deploys diffuse, amber-tinted light that hovers in the air and drifts across surfaces (see Figure 15). In Wallace's office, in Luv's workspace, and along the

corridors, these luminous ripples spread like liquid reflections (see Figures 15). Light no longer illuminates solid forms. Instead, it makes space feel weightless and immaterial, turning absence itself into a form of aesthetic experience. Authority here is staged not through divine clarity but through artificial spectacle. Illumination itself functions as a synthetic divinity, shaping perception and reinforcing a cosmology in which power emanates not from nature but from designed simulation.

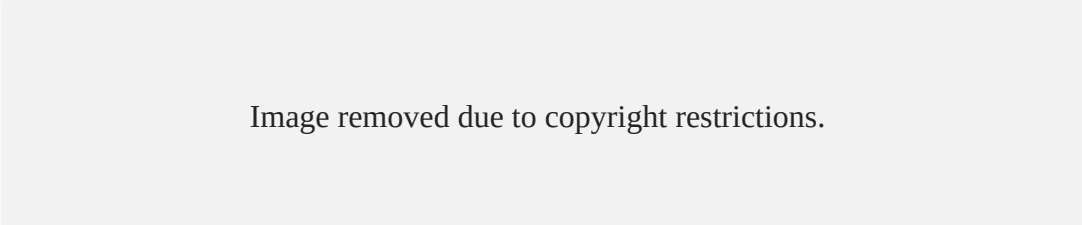

Figure 15. The space is bathed in diffuse, amber light, with shifting reflections dancing across the walls. *Blade Runner 2049*, dir. Denis Villeneuve.

4.2 Meso Layer: Making Social Systems Visible through Mise-en-scene, Framing, and Ritualized Action

Within the layered perceptual framework, immersion into a cinematic world is not solely reliant on macro-layer environmental perception, but also on the visual encoding of specific societal structures. The meso layer focuses on how institutional systems, political, economic, and cultural, are constructed through mise-en-scene, framing, and ritualized action. These mechanisms function as perceptual gateways through which viewers come to intuitively internalize the logic of the film's social order.

4.2.1 Political Hierarchies: Spatial Power and Ritualized Access

As the first part of the meso layer analysis, this section examines the political hierarchies of world-building. Authority is constructed less through dialogue or

explicit plot than through architectural form, spatial choreography, and compositional framing.

In *Blade Runner*, the Tyrell ziggurat looms atop the city as its visual and symbolic apex (see Figure 16). This verticalized structure is not merely architectural but functions as a spatial symbol, reminiscent of both religious temples and authoritarian monoliths. Afonso and Eloy (2014, as cited in Nogueira & Farias, 2021) note resemblances between the Tyrell headquarters and ancient monumental forms such as the Pyramid of the Sun at Teotihuacán or the Mesopotamian ziggurat. They both communicate elevation, surveillance, and ritual authority. In this way, the building marks the corporation not only as a financial entity but as the mythopolitical architect of order, staging power as both archaic and futuristic at once. As Foucault (1977) asserts, power in modern societies is not maintained through brute force but through spatial distribution. In Tyrell's domain, the act of watching becomes structurally codified as a mode of control. These monumental references operate as cultural echo, activating collective memories of sacred and authoritarian architecture and anchoring the futuristic city in a recognizable symbolic past.

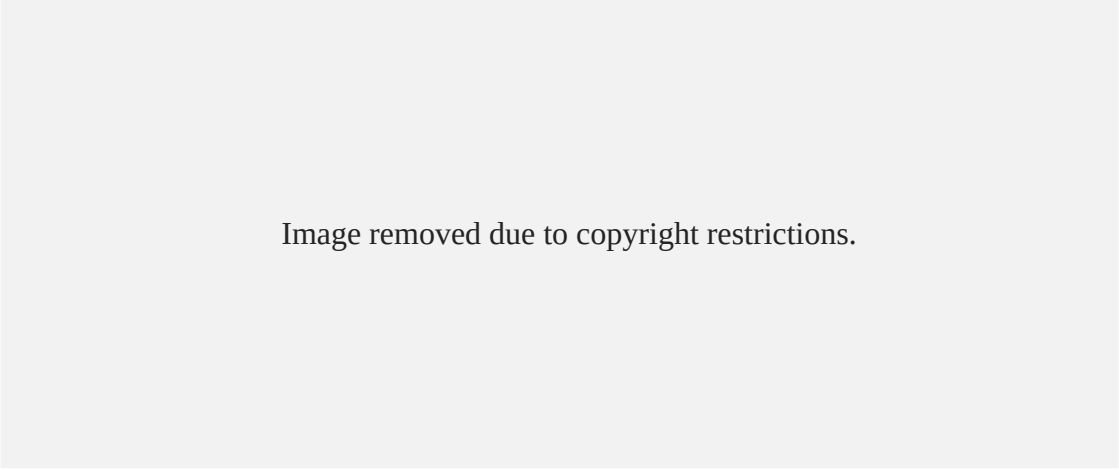

Figure 16. The Tyrell pyramid. *Blade Runner*, dir. Ridley Scott.

If the Tyrell ziggurat embodies power in its most monumental form, the journey inward translates this symbolism into lived experience through the mise-en-scene. This logic is not confined to Tyrell's headquarters but extends into the city's

institutions. As the viewer follows Deckard's approach into the police department, he must pass through a series of progressively restricted spaces: the rooftop entry platform functioning as a checkpoint, the cavernous police hall that channels movement with rigid order, and finally Bryant's dim and cluttered office, a chamber within chambers (see Figure 17).This sequential transition generates a ritual path, a spatial choreography that filters access to power, step by step. Each threshold, platform, hall, office, marks a new layer of restriction. None of these transitions are explained in dialogue, but they are felt through the cadence of the mise-en-scene, pre-conditioning the viewer to the exclusivity and stratification of power.

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Figure 17. Deckard moves from the rooftop entry platform, to the police hall, to a cramped office. *Blade Runner*, dir. Ridley Scott.

Framing further intensifies the sense of political stratification in the Tyrell and Deckard's conversation. After Deckard completes the Voight-Kampff test on Rachael, he remains seated in shadow. Tyrell, by contrast, stands, his face rhythmically lit by the flickering glow of the artificial sun (see Figures 18). This arrangement is not incidental. As Kress and van Leeuwen (2006, p. 186) note, visual grammar assigns "information value" through spatial position, with the upper zone often conveying the "Ideal" and the lower the "Real." When combined with illumination and salience, these spatial values can be mobilized to signify dominance and subordination. In this scene, Tyrell occupies the high and brightly lit position, projecting authority and control, while Deckard, placed at the margin and in partial darkness, appears vulnerable. The contrast of light and shadow thus becomes a visual resource of power, embedding hierarchy into the perceptual structure of the frame. Political authority here is not only articulated through dialogue but inscribed into the very grammar of visual design.

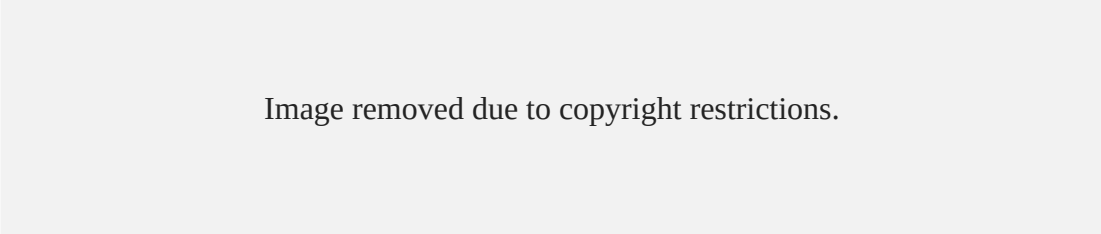

Figure 18. Tyrell is framed from above and brightly lit, while Deckard appears lower and in shadow. *Blade Runner*, dir. Ridley Scott.

In *Blade Runner 2049*, Wallace corporation is never shown in exterior view. This absence suggests that its authority does not rely on architectural visibility in the city but is staged as existing beyond everyday space. The only way the viewer perceives its "exterior" is through vast halls and endless corridors. As Lunning (2018) observes, although the viewer is denied any complete sense of the building as a whole, both its interiors and sealed exteriors function in their flat form as abstract expressions of corporate power. This temple-like architecture embodies a metaphysical vacuum of authority, where power does not reside so much as emanate out.

The visual sequence as K enters Wallace's domain still follows the ritual path of *Blade Runner*: he crosses a vast archival hall, prolonged corridors, and silenced thresholds, each shift tightening spatial scale and heightening the sense of controlled access (see Figure 19). In the archival hall, K investigates Rachael's records, yet the environment dwarfs his inquiry. Wide shots fill the frame with shelves and luminous walls, while K is reduced to a small silhouette at the lower edge. The imposing triangular atrium, drawing on an unbuilt architectural design originally conceived for a museum in reality, further reinforces this sense of a borrowed yet potent ideological grandeur. The contrast in scale emphasizes space over character, making architecture itself the locus of meaning. As Kress and van Leeuwen (2006) note, spatial position carries information value. The luminous structure dominates the central and upper zones, while K's placement at the margin signals hierarchy and subordination. The effect is to cast him as a particle adrift in an empire of light, a visual dynamic that the viewer also feels bodily, as if drawn into the same disproportion and exposure.

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Figure 19. K crosses a vast archival hall, prolonged corridors, and silenced thresholds. *Blade Runner 2049*, dir. Denis Villeneuve.

This spatial logic of subordination culminates in Wallace's encounter with the newborn replicant. Here, the mise-en-scene stages the scene as a theological spectacle. As Dunk (2021) observes, Wallace embodies the theological lustre of the symbol, his obsession with creation framed as that of a godlike maker. The birth of replicant becomes a sacrament, and death a sacrifice, reinforcing the transcendental aura of his authority. Wallace sits immobile at the centre, his blind eyes lifted in stillness, while black drones extend his vision and enforce surveillance over both Luv and the newborn (see Figure 20). Power here appears as omnipresent and inescapable. At the same time, Wallace's blindness stands in sharp contrast to the machinic gaze of the drones. As Manolachi (2025) argues, this blindness is a deliberate narrative design, symbolizing Wallace's disregard for human morality. The paradox is clear: Wallace achieves the "sight of God" through technology, yet loses the "sight of man" through his blindness. Authority in this sequence is not only spoken in Wallace's rhetoric but inscribed into space and framing, embedding power into the perceptual fabric of the scene.

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Figure 20. Wallace and the newborn replicant staged as a theological spectacle. *Blade Runner 2049*, dir. Denis Villeneuve.

Here, the chamber, at once resembling an altar and a prison， may be read through Deleuze's notion of the *any-space-whatever* (1986). Such a space is stripped of functional coordinates and instead saturated with affect. Characters do not appear as natural presences but as ritualized figures, sensorially staged. The viewer experiences not a recognizable place but an affective field of oppression, dread, and sublimity.

These scenes exemplify spatial dynamics. In the archival hall, scale and framing reduce K to a marginal figure, while luminous walls dominate the visual field. The viewer's perception is drawn into the same imbalance, positioned within a hierarchy where architecture overwhelms the body. In Wallace's chamber, authority is staged through spatial control: drones extend his gaze, and framing inscribes dominance into the perceptual structure itself. In both cases, power is not conveyed only by narrative or dialogue but is embedded in the design of space and vision, directing how the viewer sees and feels.

4.2.2 Economic Flows: Visualizing the Circulation of Commodity and Identity

As the second part of the meso layer analysis, this section examines the economic flows of world-building. It is not represented through explicit depictions of currency or formal marketplaces. Rather, it is woven into the texture of the film's perceptual world, subtly encoded through urban environments and rhythmic visual elements.

While earlier analysis framed the giant billboards and floating projections as part of a theology of absence, they also function at a more grounded level as instruments of economic circulation. The same visual forms that stage transcendence also operate as channels for commodities, saturating the city with promises of consumption and mobility. In this sense, visibility itself becomes commodified: to be seen is to be

priced, coded, and exchanged. The massive ad-blimps and screens are not only symbolic but economic devices. The promise of "A new life awaits you in the Off-world colonies" is marketed as a commodity, offering escape itself as a purchasable product. At the street level, the dense layering of screens and neon signs behind Deckard fills the viewer's vision. Urban space no longer belongs to public life but is overwritten by advertising and consumer symbols. Replicants exemplify this logic even more starkly. Manufactured by the Tyrell Corporation, their models, codes, and lifespans are predetermined. They show how identity itself becomes a commodity, defined not by birth but by economic production.

This commodification of identity is reinforced by the city's technological systems of verification. In the diegetic society of Los Angeles in *Blade Runner*, individuals must continually verify their status through mechanisms such as the Voight-Kampff interrogations. These processes do more than distinguish human from replicant. They re-inscribe economic roles, confirming subjects as commodities within the cycle of production and labor. As Frow (as cited in Dunk, 2021) notes, the test foregrounds an amalgam of real people and fictional characters as an ontological test. It makes visible not only who counts as human but how identity itself is rendered a product of systemic classification. When Leon (Brion James) undergoes the Voight-Kampff, the purpose is not only detection but reclassification, confirming him as replicant and therefore expendable. Likewise, Batty and his group attempt to escape precisely because verification would force them back into the cycle of labor, reducing them to consumable commodities. In this way, verification sustains the economy of replication, binding identity to both circulation and control. These mechanisms also resonate as cultural echo, recalling collective memories of bureaucratic surveillance, labor screening, and Cold War-era interrogations. By activating these historical associations, the film's fictional procedures acquire a sense of cultural familiarity, making the commodification of identity both uncanny and believable.

In *Blade Runner 2049*, the visual logic of economic flow is pushed further, into an attenuated emotional and psychological register. This shift is epitomized by the character of Joi, a holographic AI designed to be the perfect emotional companion. Her existence reflects not only the technological simulation of intimacy, but also the total subordination of individuality to market logic: Joi's entire personality is a set of variables within the limits of a commercial template. As Flisfeder (2018) points out, Joi discloses how the labor of care and affection, often unpaid in the real world, is condensed into artificial intelligence and sold as a product. In this way, even intimacy itself is folded into the flows of commodification, showing how the market turns the most private forms of relation into exchangeable goods.

Joi appears throughout the film in a series of systematically staged positions: softly lit and affectionate in K's apartment, gigantic and naked on public billboards, rehearsed and generic in mass-market advertisements. The mise-en-scene orchestrates a full-field choreography of commodified persona. She is K's lover. She is also an emotional model available to anyone. This creates a paradox of ironic intimacy. Her uniqueness is constantly undermined by the viewer's awareness that she can be replicated. Even more telling are Joi's repeated use of imperative phrasing: "I'm here for you." "You look lonely." These lines are not intimate expressions. They read as instructional speech acts. They work like user commands designed to simulate closeness. Her affect is programmatically triggered. Her "being" is, in essence, a visual commodity loop. It functions as a recursive aesthetic interface. It links the viewer, the user, and consumer desire. These staged forms of Joi resonate as cultural echo: they recall familiar cultural scripts of intimacy sold through advertising, romance industries, and consumer technologies. In this way, the commodification of Joi feels not only futuristic but also deeply familiar, grounding the fictional world in shared memories of intimacy as a marketable product.

4.2.3 Cultural Rituals: Visualizing the Ritualization of Social Behaviour

As the third part of the meso layer analysis, this section examines the cultural rituals of world-building. Social order is not ostensibly imposed through overt institutional design, but rather emerges subtly through chains of repetitive, codified behaviours that function as sensory rituals. These actions are not natural gestures. They are culturally encoded movements. Through mise-en-scene, they are organised and intensified. The viewer comes to embody them as part of the world's internal logic.

In *Blade Runner*, the most iconic visual ritual is the Voight-Kampff test. Dunk (2021) explains that this procedure separates humans from replicants by tracking pupil responses to imagined but emotionally charged questions. The first test scene is carefully staged: Leon and officer Dave Holden (Morgan Paull) sit face-to-face across a white desk, while a glowing machine stands at the exact centre between them. A ceiling fan cuts through the diffuse top light, and the sealed room is framed in strict symmetry (see Figure 21). Flashing sensors, mechanical beeps, iris close-ups, and cold-toned lighting repeat with clinical rhythm, creating what feels like a ritualised theater of suspicion.

Figure 21. The replicant and the officer sit face-to-face across a white desk. *Blade Runner*, dir. Ridley Scott.

As Mulvey (1975) argues, cinematic "gaze" is not neutral but encodes power through gender, identity, and hierarchy. In the Voight-Kampff sequence, this gaze is expressed through the camera's language. The lens fixes on the subject's eyes in extreme

close-up, recording dilation and reflection, while the device itself is also shown in repeated close-ups (see Figure 22). These choices place both the machine and the officer in the position of judgment, reducing the replicant to a body under surveillance. As Deleuze (1986) notes, the close-up does not simply enlarge a detail but turns the eye into an affection-image, a surface where affect and vulnerability are exposed. These choices place the machine at the centre of judgment and reduce the replicant to a body under surveillance. The viewer is therefore drawn into a ritual of exclusion staged by the film's visual form. This scene culminates in Leon's sudden act of violence. Pressed by Holden's questions, he rises in anger and shoots the officer, breaking the symmetrical order of the scene. The eruption of violence disrupts the ritualised rhythm and makes visible the fragile balance of power inscribed in the test.

Figure 22. Close-up of the Voight-Kampff test device, showing the dilation and reflection of the subject's eye. *Blade Runner*, dir. Ridley Scott.

This ritualized movement is continued in *Blade Runner 2049*. When K returns from the farm, he is subjected to a post-traumatic Baseline Test. Its mise-en-scene generates a different form of coercion. Through visual symmetry, cold lighting, linguistic repetition, and affective surveillance, the sequence produces a ritual of psychological domination. The space strips away all emotional markers, leaving only the body under examination. It begins with K framed against the bare background, his figure almost dissolved into the flat surface of the chamber (see Figure 23). The

camera then pushes slowly forward, narrowing the space until K's face aligns directly with the small surveillance lens fixed on the wall (see Figure 23).

Figure 23. K faces the Baseline Test apparatus in a white room. *Blade Runner 2049*, dir. Denis Villeneuve.

As Sobchack (1992) argues, cinematic experience is not limited to vision but involves the viewer's own embodied perception. In this sequence, the gradual camera advance compresses space in a way that the viewer feels physically, as if the room itself closes in on their body. The alignment of K's face with the surveillance device intensifies this sensation, staging the viewer's own confrontation with mechanical judgment. The scene does not rely on overt violence, yet through its mise-en-scene it produces a palpable weight of pressure, an affect that resonates in the viewer's own breathing and bodily awareness. This choreography of space exemplifies spatial dynamics. The viewer's perception is not free but positioned inside a hierarchy of control, where camera movement and architectural framing inscribe power directly onto the body.

4.2.4 Class Systems: Costume, Space, and the Rhythmic Choreography of the Frame

As the fourth part of the meso layer analysis, this section examines the class systems of world-building. Social class may be concretely represented in disparities of power and wealth but it is also more metonymically is embedded in the relationship between bodies and space. This relationship is shaped by the texture of costumes, the environmental context, the camera angle, and movement. Within the mise-en-scene,

costume is always situated in a specific spatial and lighting context, allowing its texture and silhouette to resonate with the environment's tone. In other words, the viewer does not learn the film's class structure. They feel it. Through the very act of watching, they come to intuitively inhabit this layered world.

In *Blade Runner*, the clearest sensory indicators of class reside in the correspondence between costume and environment. Deckard, as an agent of official power, wears a trench-coat of muted tones and utilitarian design that recalls the Chandleresque figure of the hard-bitten detective from film noir（see Figure 24. This garment not only marks a form of institutional authority but also recalls cultural memories of uniforms as signs of state power, emblems that confer control yet also suggest rigidity and fatigue. Such resonance exemplifies cultural echo, as the trench coat activates familiar associations with official enforcers, making its authority both credible and fragile. As Dempsey (1982, as cited in Williams, 1988) observes, Deckard's detached, almost zombie-like presence conveys "a palpable sense of a benumbed life force struggling to regain vigor in a poisoned world" (Williams, 1988, p. 389).

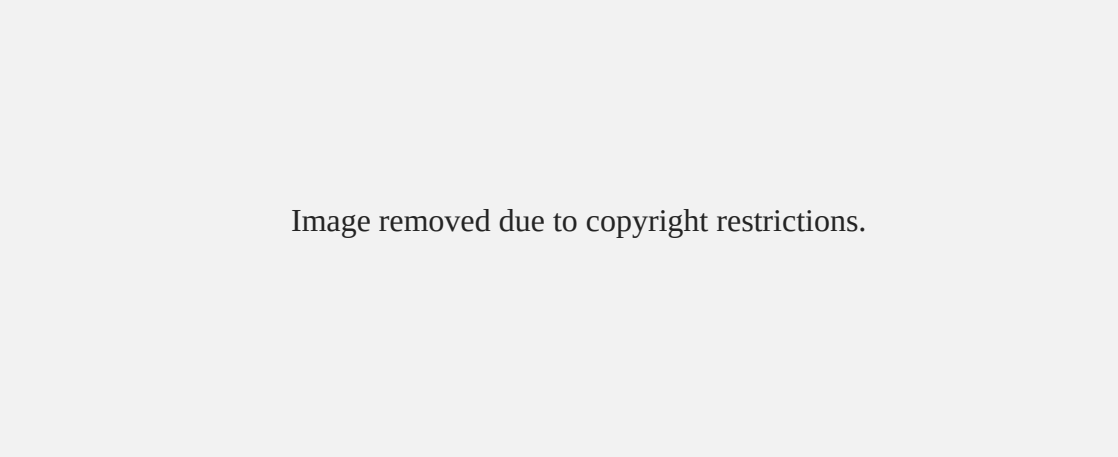

Figure 24. Deckard wears a realistic trench-coat-like outfit. *Blade Runner*, dir. Ridley Scott.

This contradiction becomes visible in the Bradbury Building pursuit of Batty. The handheld camera follows Deckard's frantic movements through corridors slashed with beams of light, the unstable frame mirroring his unsteady body. Sobchack (1992)

argues that cinema reveals embodied vision, and here the spectator feels Deckard's imbalance directly. When Batty's unseen voice calls, "I'm coming"， the absence of a visible source destabilizes spatial orientation, enclosing both Deckard and the viewer in threat. A low-angle shot then reduces him to a backlit silhouette engulfed by artificial light from the blimps (see Figure 25). This mise-en-scene exemplifies spatial dynamics: light and framing do not merely describe space but position the viewer within Deckard's perceptual imbalance. Authority dissolves into vulnerability, and the viewer is drawn into the same experience of disorientation and pressure.

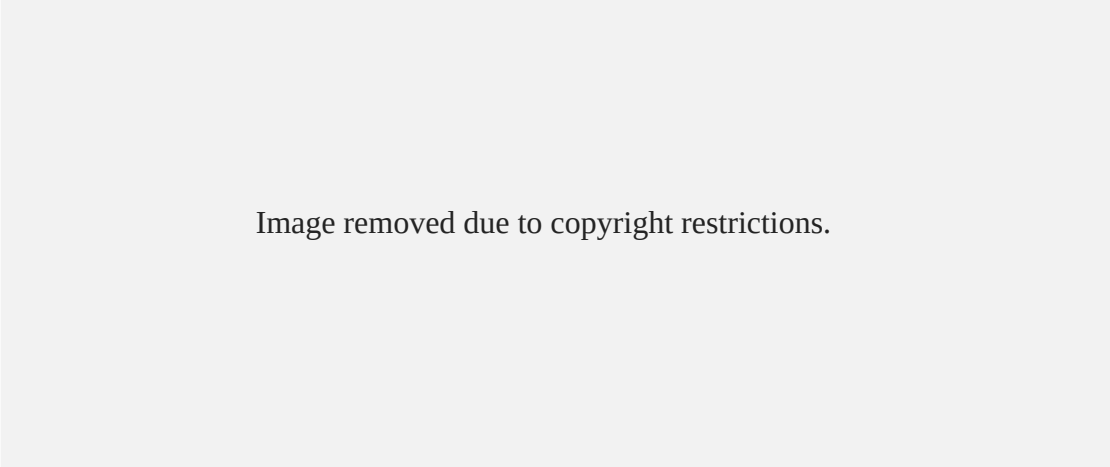

Figure 25. Deckard silhouetted in the Bradbury Building pursuit. *Blade Runner*, dir. Ridley Scott.

In contrast, replicants like Pris and Batty wear punkish, exaggerated, almost theatrical costumes of rupture rather than social inclusion. Pris's whiteface makeup, torn tights, and staged ballet posturing are not only markers of her constructed marginality but also resonate as cultural echo. They recall familiar codes of punk subcultures and the gendered spectacle of the performing body, cultural memories that make her marginal status immediately recognizable. As Williams (1988) observes, her appearance merges the features of a fragile waif with those of the "standard pleasure model."

Within the mise-en-scene of Deckard's pursuit in the Bradbury Building, Pris is placed at the edge of light (see Figure 26). Her body is like a broken doll, at once endearing and dangerous, a functionalized body encoded by class through spatial

framing. This theatrical quality intensifies in her fight with Deckard. Her acrobatic flips and contorted postures turn the struggle into a grotesque performance. Lit in fragments of shadow and half-light, she becomes both threatening and spectacular. When shot, her spasmodic convulsions reduce her to a malfunctioning doll, underscoring the replicant body as a consumable object that can break down. As Sobchack (2004) reminds us, film addresses the viewer as an embodied subject, and here Pris's convulsions are not only seen but viscerally felt as shocks to the viewer's own body. Through mise-en-scene, Pris's costuming, positioning, and gestures transform her into a spectacle of marginality, visible, consumable, and disposable. Thus, it reinforces the classed division between official authority and expendable bodies.

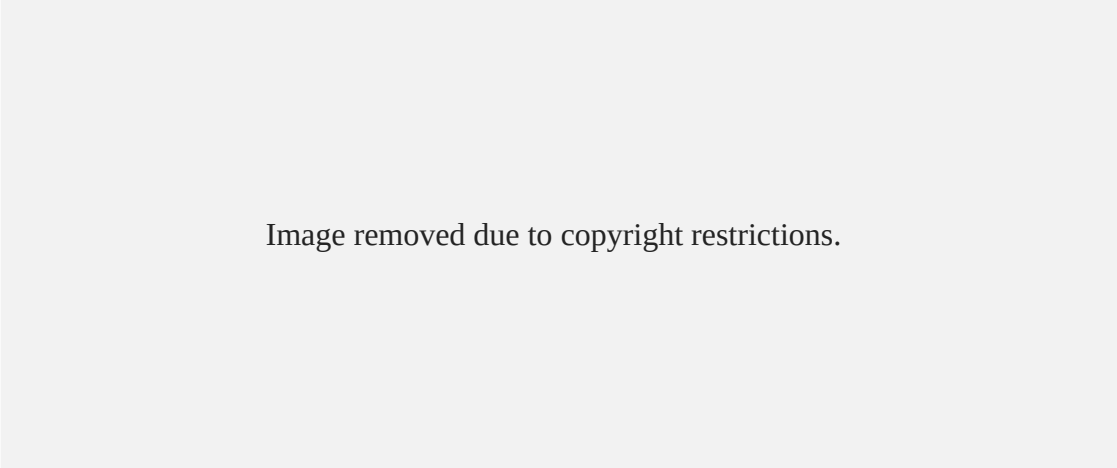

Figure 26. Pris costumed as a punk-like marionette, staged at the edge of light in the Bradbury Building. *Blade Runner*, dir. Ridley Scott.

The spatial mise-en-scene also encodes social class. As Deckard moves through the city, he enters sharply differentiated environments: middle-class apartments, commercial blimp zones crowded with food stalls and street vendors, and finally the monumental headquarters of the Tyrell Corporation. These movements take him across distinct layers of the social structure. As Kellner, Leibowitz, and Ryan (n.d., as cited in Williams, 1988) observe, the upper city is rendered through fortress-like buildings that house the powerful and privileged, while the lower city is filled with

uprooted masses. In mise-en-scene, this contrast is materialized in scale, lighting, and composition. The lower layers are visualized through rain-soaked streets, dense framing, and neon-saturated darkness that press bodies together, while the upper tiers, most clearly seen in Tyrell's office, are staged through dry, still interiors, monumental symmetry, and controlled illumination (see Figure 27). This vertical organisation links space, identity, and the body.

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Figure 27. Contrasting spaces of class: the neon-saturated lower city and the monumental office of Tyrell's headquarters. *Blade Runner*, dir. Ridley Scott.

In *Blade Runner 2049*, the visual encoding of class becomes more refined and affective. Costumes and spatial divisions do not simply symbolise social stratification. They operate as tools of legitimation, regulating which identities are recognized as authentic and which are excluded from authority.

K's uniform is tightly coupled with his replicant status: a black inner suit overlaid with a military-style dark green jacket. The outfit is impersonal, standardized, and form-fitting, perfectly aligned with his function in the system. His clothing does not simply reflect class, it confirms his loyalty to institutional order and marks him as part of the lowest tier of sanctioned authority. An expendable enforcer whose legitimacy depends on obedience. His collar is consistently raised, reinforcing the sense of discipline and enclosure (see Figure 28). By the final snow sequence, however, the visual order has shifted. After choosing to reunite Deckard with his daughter, an act outside both police and Wallace directives, K lies in the snow with his coat heavy, disheveled, and open. The collar has collapsed, his silhouette softens, and the once-regimented uniform loses its rigidity (see Figure 28). Marks (2000) emphasizes through her concept of haptic visuality that images can be "tactilely seen." K's

clothing shifts from tight and rigid to loose and heavy, producing a change in texture. The viewer can almost feel the weight and slackness of the fabric in the body. Through this mise-en-scene, the costume ceases to mark systemic obedience and instead visualizes his emergence as an autonomous subject.

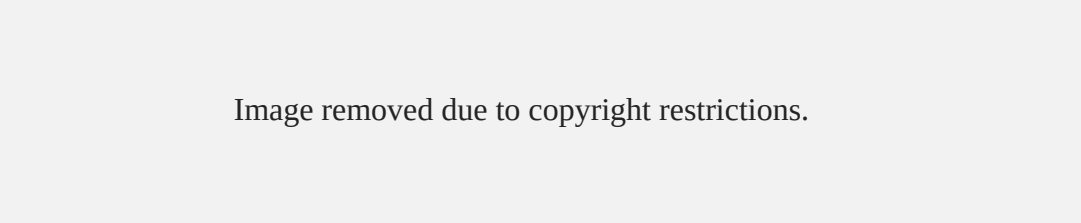

Figure 28. K's uniform shifting from rigid discipline in the cockpit to disheveled openness in the snow. *Blade Runner*, dir. Ridley Scott.

The homeless population is stripped of costume as expression altogether. Their mise-en-scene leans towards decay: junkyards, crowded hallways and hopeless spaces. Their bodies are swaddled in shapeless, heavy garments that erase individuality, gender, and agency. This erasure becomes most visible in the San Diego district. As soon as K lands his vehicle, the homeless rush toward him in a faceless mass (see Figure 29). The camera frames them in long shot, producing an image of undifferentiated movement.

Figure 29. The homeless population gather in junkyards. *Blade Runner 2049*, dir. Denis Villeneuve.

This is a clear instance of spatial dynamics: the long shot does not allow the viewer to remain detached but positions their body within the same sense of constriction and threat. Viewers feel the loss of individuality as the group fills the frame, producing a visceral experience of spatial deprivation and social exclusion. At the same time, these images resonate as cultural echo. They recall familiar collective memories of refugee camps, breadlines, and overcrowded slums, cultural sites where dispossession has historically been rendered visible. Through this resonance, the fictional homeless of *Blade Runner 2049* feel both alien and disturbingly recognizable, anchoring their exclusion within a broader cultural memory of marginalization. In this sense, the unhoused are not simply lower class but a dispossessed, classless group. They are entirely excluded from the system of recognition. Here, class is not just about access to wealth but about whether the body is allowed to signify at all.

Joi's "outfits" represent an even more extreme form of class encoding within the mise-en-scene, where costume and body are entirely constructed for display. Of course, she has no real body, and functions as pure simulacrum. Each appearance is determined by a contextual algorithm. At home, she wears cozy domestic clothing (see Figure 30). On public billboards, she is a colossal naked fantasy (see Figure 30). During the synchronized intimacy scene, she blends her body with another woman's, an ultimate form of externalized identity performance (see Figure 30). Her appearance is always calibrated for someone else's desire. Unlike the homeless, who are reduced to anonymity through the loss of costume and expression, Joi embodies classlessness by design. She does not possess clothing but can only be dressed up or down. As Flisfeder (2018) notes, even though she may represent a high point in artificial intelligence, she lacks genuine will or agency. Within the system's logic, this manufactured absence of class and agency positions her at the lowest level of the social hierarchy, where her visibility exists only to fulfill a predetermined visual role.

Image removed due to copyright restrictions.

Figure 30. Joi wears different clothing in different scenes. *Blade Runner 2049*, dir. Denis Villeneuve.

In *Blade Runner 2049*, the city's spatial layout, as staged in the mise-en-scene, extends the class hierarchies of the original film but stages them in a more rigid and segregated form. *Blade Runner* visualized class through hybridity, congestion, and vertical crossing, which Deckard traverses and reveals to the viewer as he moves between classed spaces in pursuit of the escaped replicants. However, *Blade Runner 2049* constructs a fractured city where spaces are sealed off from each other. At the top stands the Wallace corporation, housed in a temple-like, dustless complex. In the middle lie government housing blocks and official workspaces such as K's precinct and apartment. At the bottom stretch unregulated zones, including the junkyards of the San Diego district and the refugee camps on the city's margins. While formally connected by airborne traffic, these layers share no narrative or perceptual intersection. Characters do not cross between them in any meaningful way. The result is a visual apartheid: a mise-en-scene of stratification without contact, where borders are visible but impermeable. Viewers can perceive the fracture, but like K, they remain unable to bridge it.

4.3 Micro Layer: Tuning Emotional Presence through Costuming, Set Design, and Texture.

Following the establishment of macro-layer geopolitical frames and meso-layer social institutions, the immersive power of cinematic worlds hinges on the credibility and affective depth of individual characters. At the micro layer, presence is not asserted through performance alone but constructed through a multisensory grammar that embeds the character within a palpable emotional texture. This is the "intimate zone of immersion". A perceptual field where viewers don't merely see a character, but

tune into their intimate spaces and affective environments via set design and costuming.

This layer of world-building does not rely on spatial scale or ideological codification alone. Instead, it materializes through costuming, set design, and texture. These elements act as affective agents, producing visual and tactile extensions of the character's inner world. These are not decorative additions but primary carriers of psychological presence, crafting a sensorium in which viewers resonate with the characters' emotional trajectories.

4.3.1 Noir Aesthetics and Ambiguous Subjectivity: Deckard and Rachael through Costume and Set Design

Film noir aesthetics permeate *Blade Runner*, shaping both its visual language and its moral atmosphere. As Williams (1988) argues, the ethos of noir is grounded in the sense of an irreparably corrupt society, where human beings appear cynical, amoral, and detached. Deckard embodies this ethos. As discussed earlier, his utilitarian trench coat, designed by Michael Kaplan and Charles Knode, identifies him as an agent of authority (the plainclothed police detective). Yet he appears less a heroic figure of justice than a weary functionary of power. Deckard's apartment, conceptualized by production designer Syd Mead, serves as a concrete extension of his psychological retreat. Positioned in the upper-mid zones of the dystopian Los Angeles skyline, it is neither embedded in the rain-drenched chaos of the streets nor elevated to the divine heights of Tyrell's pyramid. This placement mirrors Deckard's liminal status between institution and autonomy.

As Aberg (2021) notes, the apartment was partly filmed in Frank Lloyd Wright's Ennis House, with elements such as the Mayan-themed tiles being reproduced for the studio set components. It functions as an intimate zone where viewers tune into his fatigue and fragility. The space is dimly lit and claustrophobic. Its textured concrete

blocks and dense, outdated furnishings create a sense of material weight (see Figure 31). As Sobchack (2004) reminds us, cinematic space addresses the viewer as an embodied subject. The weight and density of Deckard's apartment are not only seen but physically felt as constriction and fatigue. This heaviness also mirrors Deckard's psychological dissociation: institutional yet isolated, sheltered yet oppressive. According to Nogueira and Farias (2021), the architectural treatment of the apartment also carries subtle clues to the question of his possible replicant identity. Wright's block patterns, inspired by Mayan motifs, echo the same visual language used in Tyrell's monumental pyramids. This repetition links Deckard's private refuge to the corporate world of replication. It suggests that his retreat is never fully outside the system that produces replicants. In this way, the set design is not a neutral backdrop but an extension of noir's ethos of ambiguity, embedding fragile subjectivity within a symbolic architecture of power and doubt.

Figure 31. Deckard's apartment. *Blade Runner*, dir. Ridley Scott.

This spatial ambivalence does not remain confined to Deckard's private retreat. It reaches its peak in J.F. Sebastian's apartment, located in the decaying Bradbury Building. The structure carries the shadows of classicalism, blending Baroque elements into a decayed aesthetic (Williams, 1988). It resonates with the noir ethos of corruption, disorder, and blurred morality. Here, the confrontation is staged not as a clear battle of hero and villain but within an ambiguous, unstable space. As Williams

(1988) notes, the Bradbury Building itself symbolizes the collapse of noir's traditional hero/villain dichotomy. Its open atrium, iron staircases, and fragmented sightlines create encounters defined less by clarity than by entrapment and uncertainty. The viewer's senses are absorbed into a labyrinthine visual field. This resonates with Deckard's own subjectivity: in the Bradbury Building he is both hunter and prey, his fragile agency consumed by spatial uncertainty. The contrast with his apartment is striking， one a claustrophobic, institutional refuge, the other a ruined, chaotic collective space. Together, these environments mirror Deckard's ambiguous position: never fully part of the system, yet never free from it.

In stark contrast, Rachael embodies the aestheticization of ambiguity. Under Michael Kaplan and Charles Knode's design, she "wears furs, lots of red lipstick, a 1940s buxom blond 'Andrews Sisters' hairdo, wine-tinted fingernails that glow as the dust-flecked sunlight streams through them, and a black sheath with padded 'Mommie Dearest' shoulder-pads" (Williams, 1988, p.387) (see Figure 32). The result is a paradox: a familiar beauty rendered uncanny, a perfection that feels emotionally sterile. Her appearance is tightly composed, cold, and restrained, signaling not natural presence but a carefully manufactured image. These vintage signs resonate as cultural echo. They recall collective memories of 1940s Hollywood femininity and standardized ideals of beauty, yet in their excess they appear artificial, destabilizing any sense of authenticity. As Marks (2000) argues, images can be "tactilely seen" through *haptic visuality*. Rachael's fur textures, glossy nails, and sculpted hairdo operate as haptic signs, inviting the viewer to sense their surface qualities. This tactile perception amplifies the artificiality of her design, making her elegance feel less like natural intimacy than a cold aesthetic surface.

Figure 32. Rachael wears a shoulder-padded black suit and vintage red lipstick. *Blade Runner*, dir. Ridley Scott.

This mirrors the environment of her debut setting, Tyrell's office. As Lunning (2018) observes, its assemblage of massive drapes, sculptural ornaments, and archaic furniture creates a dense visual field. The effect is sumptuous yet disjointed, presenting the office as a constructed spectacle rather than a lived environment. Rachael's costume and the set design of Tyrell's office together construct a vision of cold perfection. The effect is elevated in style yet devoid of warmth. Because of this perfection, she appears less as a natural being than as a product manufactured by the system. At the same time, the very excess of this perfection generates the ambiguity of noir, where her existence and authenticity remain in constant doubt.

Yet this ambiguity is not static. Rachael's visual design evolves as her relationship with Deckard deepens. What begins as the projection of systemic perfection gradually softens into signs of subjectivity. Her clothing becomes a sensorial boundary: first cold and rigid, then fragile and permeable. Shifts in texture and style, satin to velvet and tweed, dark tones to lighter shades, trace a visual trajectory of awakening(see Figure 32). Through these material changes, Rachael moves from an object staged for the gaze to a subject in the process of self-discovery. Through costume textures, the viewer perceives her not just as seen but as felt.

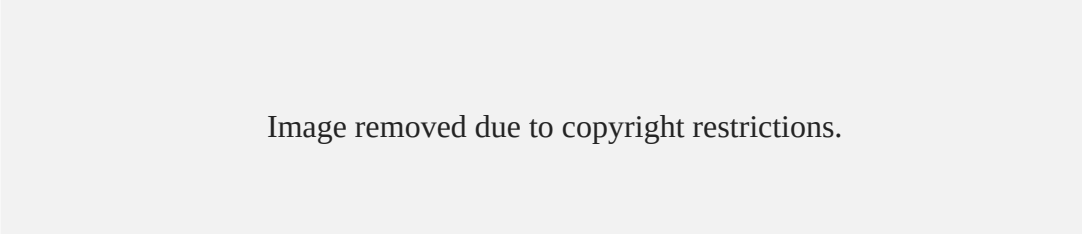

Figure 33. Rachael is in tactile costumes of velvet and tweed. *Blade Runner*, dir. Ridley Scott.

Through these micro-layer strategies of costuming and set design, the film transforms private interiors and visual surfaces into intimate zones of immersion. The viewer does not simply observe Deckard and Rachael but inhabits the affective spaces that materialize their fragile subjectivities.

4.3.2 Configurations of Intimacy under Systemic Logic: K, Stelline, and Joi's Costumes and Set Design

As mentioned earlier, in *Blade Runner 2049*, costume designer Renée April outfits K in a black inner suit layered with a military-style dark green jacket. The high collar and rigid lines enclose his body, materializing his emotional restraint. The uniform reveals not individuality but a condition of silence. This logic extends into his living quarters. Under the set design of Alessandra Querzola, "K's shoebox apartment is depressingly austere" (Aberg, 2021, p.16). Bare concrete walls, coarse surfaces, no decoration, minimal light (see Figure 34). Personal belongings are nearly nonexistent—it almost looks like a construct from the Sims or some other virtual world-building game. The only source of emotional affect comes from Joi, his holographic partner. As Norman (2004) argues, emotional engagement with environments and objects is shaped not only by function but by their capacity to evoke affect. K's apartment, stripped of resonant artifacts and personal warmth, denies him a meaningful intimate environment. Again in Deleuze's (1986) terms, the apartment resembles an *any-space-whatever*: stripped of concrete function, emptied of

continuity, and presented instead as a pure affective field. Through its cold materials, minimal lighting, and emptiness, it communicates an atmosphere of dehumanization and emotional deprivation. What should be a private space of rest and self-expression instead amplifies his isolation, making Joi's presence his only emotional anchor.

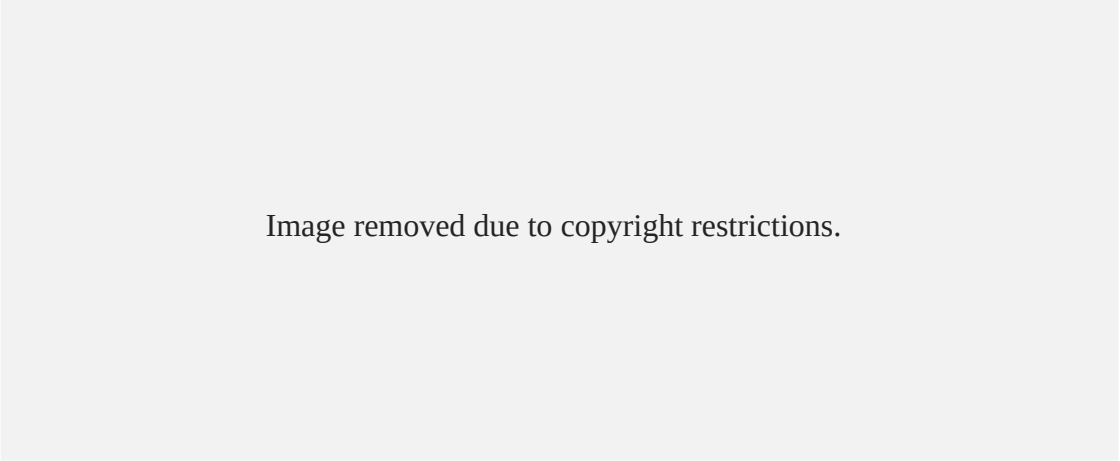

Figure 34. K's apartment. *Blade Runner 2049*, dir. Denis Villeneuve.

According to Aberg (2021), the Maya-style tiles in K's kitchen were deliberately included as a visual homage to the Ennis House blocks. It suggests that the spatial world of *Blade Runner 2049* remains haunted by the aesthetic legacy of *Blade Runner*, but the legacy has become fragmented, isolated, and stripped of continuity. Deckard's apartment embodied an ambiguous refuge, its Mayan-inspired motifs hinting at his uncertain status as possibly human or replicant. By contrast, K's apartment is stripped of ambiguity. His identity as a replicant officer is fixed, shaped and disciplined entirely by the system. The tiles therefore operate less as homage than as irony. They replicate the decorative signifiers of Deckard's environment, but they do not reproduce its ambiguous and weighty atmosphere. On the contrary, it highlights that K's living environment is more mechanical and undecorated. Director Villeneuve uses this design choice to stage a residue of heritage, a trace that functions as visual irony and as an identity metaphor. The viewer glimpses an echo of Deckard's world in K's apartment, but at the same time perceives the rupture between two generations of replicant existence.

At the opposite pole lies Dr. Ana Stelline (Carla Juri), the memory creator, whose life is confined to a protective bubble due to chronic health problems. This bubble takes the form of a bunker embedded within a laboratory, collapsing the boundary between the private and the institutional. As Nogueira and Farias (2021) argue, such a setting critiques the erosion of privacy and the intrusion of work into domestic life. Within this enclosure, her home office functions as a sensorial sanctuary: "the shape of the bunker resembles an enlarged igloo, all white and with a small transparent surface (also internal)" (Nogueira & Farias, 2021, p.12), where a virtual forest can appear or vanish (see Figure 35). The design visually invites the viewer to reach out and touch, yet no real contact is possible, as the forest is only projection. In Marks's (2000) terms, this is a mode of haptic visuality: the image solicits tactile engagement through vision, evoking the sensation of touch while withholding material substance. However, Stelline's environment is therefore a sensory illusion: it simulates intimacy through visual tactility, yet ultimately denies real physical contact.

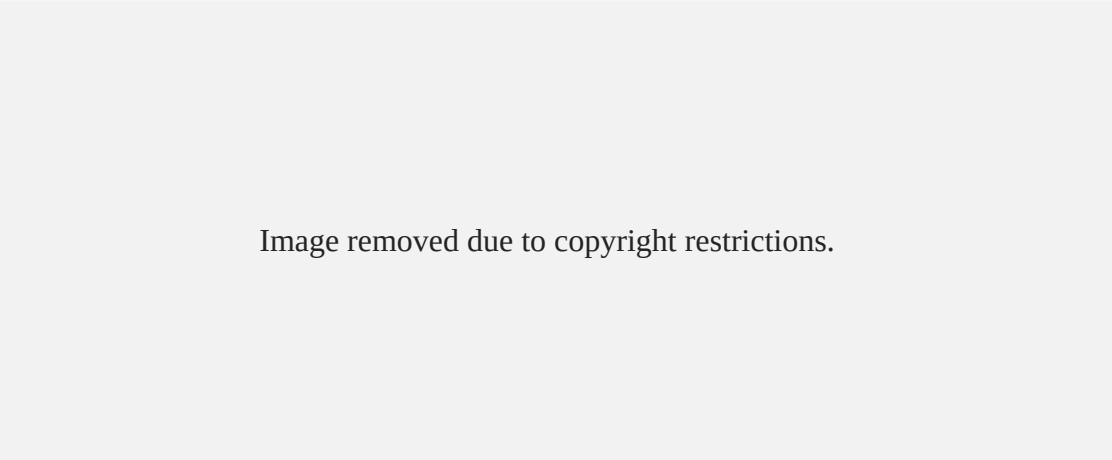

Figure 35. Stelline's home office. *Blade Runner 2049*, dir. Denis Villeneuve.

As Nogueira and Farias (2021) observe, this bubble can be read as a metaphor for pandemic diseases. The interior is aseptic, clinical, and stripped of warmth. This sterile atmosphere resonates with Stelline's own condition: although she creates memories for others, her personal life is reduced to an abstract and institutionalized isolation. Domestic space, normally a site of shelter and intimacy, here becomes

medicalized confinement. In contrast with K's bare apartment, which conveys emotional deprivation through minimalism, Stelline's dwelling represents the opposite extreme. It is immersive yet isolating, touchable yet untouching. Together, these environments highlight two sides of the same logic: the erosion of intimacy under systemic control, whether by subtraction or by sterilization.

Her costuming extends this sensory logic. She is consistently dressed in pale, soft fabrics that echo the luminous surfaces of her bubble (see Figure 36). Flowing textures suggest warmth and comfort, yet their effect is paradoxical. Much like the simulated forest that fills her enclosure, her garments project intimacy while withholding it. The absence of colour and ornament reinforces the sense of sterilization, as if her very body has been absorbed into the aseptic environment. These pale and sanitized fabrics resonate as cultural echo, recalling collective associations with medical uniforms and institutional attire, where whiteness signifies purity but also control. In contrast with K's rigid uniform, which materializes silence and obedience, Stelline's costuming materializes fragility and containment. Both characters are clothed not in individuality but in systemic logic, one through hardness, the other through softness.

Figure 36. Stelline is dressed in pale, soft fabrics. *Blade Runner 2049*, dir. Denis Villeneuve.

Alongside K's austere uniform and Stelline's sterile garments, Joi represents a third mode of visual logic. Unlike clothing that is material and wearable, her costuming is entirely projected. As noted, in reality she has no physical garments; instead, her appearance is algorithmically constructed, shifting with context and calibrated to external desire. This places Joi at the intersection of costume and set design. Her projected outfits，domestic, sexualized, or monumental，operate as extensions of the environments she inhabits. In this sense, her "clothing" is less an act of personal choice than part of the spatial design itself.

Within the private space of K's apartment, Joi's changing forms are orchestrated to simulate intimacy. She first appears as a domestic partner, wearing a retro skirt and apron while carrying food to the table, softening the severity of K's austere home. Moments later, she shifts into a simple black outfit as she invites companionship and reading. The sequence culminates in a glittering dress, as she suggests dancing, projecting an atmosphere of play and desire（see Figure 37）. These transformations do not reveal individuality but instead demonstrate how her appearance is programmed to evoke closeness. In this context, her costuming becomes an affective device, reinforcing the sense of intimacy within K's otherwise barren environment and persuading the viewer to perceive her as capable of emotion and agency.

Figure 37. Joi changes projected outfits to simulate intimacy. *Blade Runner 2049*, dir. Denis Villeneuve.

The brilliance lies in how Joi's presence is choreographed along the boundaries of K's material world. Although her projection cannot touch physical objects, her movements trace the edges of furniture, the frames of the room, and K's body. This hovering transforms absence into a form of presence and closeness. It is an intimacy

that exists entirely within the perceptual field. Marks (2000) terms such experiences haptic visuality: images that withhold material substance yet evoke the sensation of touch. This also aligns with Dunk's (2021) claim that, although Joi is a designed and commercialized product of wish-fulfilment, she appears to exercise a form of agency, and her bond with K takes on both affective and personal qualities.

Yet in public space, her illusion is instantly exposed. On the city's billboards, she appears as a colossal naked fantasy, gazing down on K. This vision reminds the viewer that she is not a singular partner but a mass-produced commodity. As Aberg (2021) points out, she ultimately exists as a commercial product. Joi's intimacy in private appears genuine, but in public it dissolves into spectacle. Her costuming and presence thus reveal another extreme: intimacy rendered as spatial illusion and affect commodified under systemic logic.

4.4 Perceptual Rhythmic Layer: Designing Immersion through Affective Tempo

Having examined the macro, meso, and micro layers of world-building, this section now turns to the perceptual rhythmic layer. This dimension explores the relations between visual and aural elements, and how their interaction generates immersive perception that manifests as affective atmosphere. In this study, aural elements include score, dialogue, ambient noise, and sound effects. Each of these modes can be differentiated within a clear taxonomy, and each carries a distinct function. Score establishes the emotional tone, operating through tonal and rhythmic design such as drones, melodies, and harmonic progression. Dialogue and voice convey narrative and psychological tension. They encompass speech, monologue, silence, voice-over, and the affective force of absence. Ambient noise grounds perception in spatial reality by providing continuous background sounds such as industrial hum, wind, or the rumble of the city that sustain environmental realism. Sound effects deliver immediate sensory impact through discrete sonic events tied to actions such as gunshots,

footsteps, or shattering glass. Their immersive force, however, does not emerge from these functions in isolation but from the way they interact with visual rhythm.

This interdependence can be understood through van Leeuwen's (1985, as cited in Kress & van Leeuwen, 2001) account of multimodal texts as systems of division of labor, in which each mode fulfills a specialized role but achieves coherence only through integration. In film, images may provide narrative action, synchronous sound may secure realism, music may add an emotional layer, and editing supplies the "integration code" that synchronizes them through rhythm. From this perspective, the relation between sound and image is not one of support but of coordination through perceptual rhythm, a logic that underpins the immersive effect of both Blade Runner films.

In *Blade Runner*, one of the most distinctive features of sound design is the way Vangelis' score blurs the boundary between music and sound effects (Moreland, 2020, as cited in Massese, 2024). Rather than functioning as a separate musical layer, his compositions merge with ambient noise and environmental sound to create a unified auditory field that envelops the viewer and heightens immersion.

The opening credits are accompanied by a distant, solemn timbre reminiscent of military music. This establishes an atmosphere of gravity, oppression, and severity. As the titles fade, Vangelis's score enters with slow, sustained synthesizer chords. Low-frequency drones form the base, gradually layered with brighter melodic fragments and extended harmonies, as the opening images reveal a vast, dehumanized cityscape (see Figure 38). This "god-like perspective" removes human centrality and positions the viewer within a non-human urban machine. The slow tempo fuses the coldness of science fiction with the melancholy of noir, synchronizing with the aerial pans of Los Angeles to elongate time and expand spatial scale.

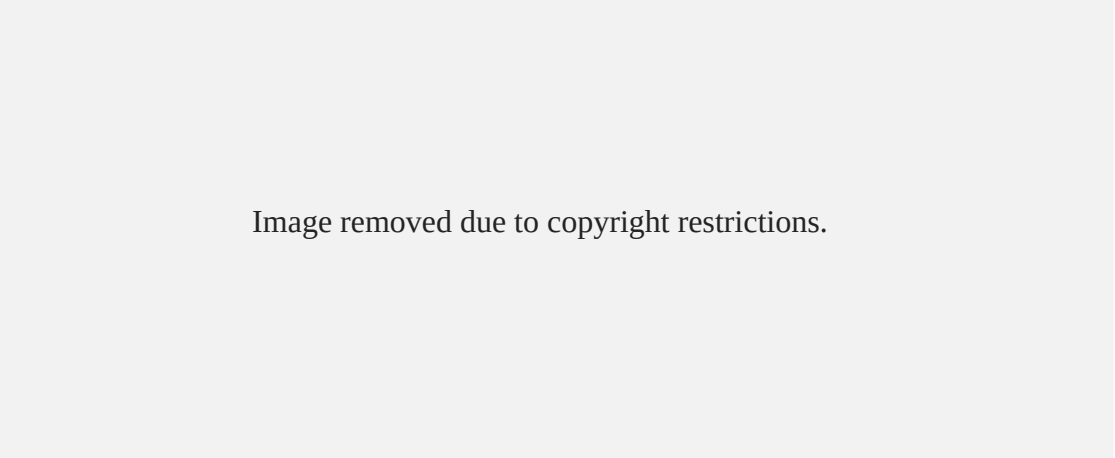

Figure 38. A vast, dehumanized cityscape. *Blade Runner*, dir. Ridley Scott.

At the same time, ambient noise saturates the soundscape. Continuous industrial rumbles are layered to produce a heavy, oppressive bodily resonance that makes the viewer feel the city is "breathing." Distant mechanical cycles establish a regulated rhythm of endless operation, reinforcing the metaphor of the city as an unceasing machine. The friction of air, processed to resemble a spectral wind, adds a sense of void and disembodied echo, heightening feelings of estrangement and unease. Through this carefully constructed sound design, the viewer is situated inside the city's body, experiencing a tactile sense of spatial weight that resonates physically in the chest. The city is therefore heard not as static background but as a living industrial organism that never ceases to function.

Sound effects punctuate this auditory continuum, fiery explosions from smokestacks and the intermittent passage of Spinners. These effects are not presented as incidental noises but are deliberately designed and mixed to shape the city's acoustic environment. Each explosion is inserted with sharp intensity and coupled with the score's climactic swells, producing moments of audiovisual synchresis that make the violence both seen and felt (Chion, 1994). The passage of Spinners employs Doppler shifts, in which the pitch rises as the aircraft approaches and falls as it recedes, to create a heightened sense of motion and spatial surveillance. This auditory design

reminds the viewer of constant airborne control and reinforces the impression that the city is perpetually monitored from above.

Finally, the wide reverb applied to both effects makes the entire soundscape feel enclosed within a vast dome, reinforcing the impression that the sky is sealed and already dominated by power. This sonic liminality merges with the visual field, producing an affective atmosphere where coldness and longing coexist. The estranging scale of the image and the ethereal extension of the sound combine to generate an affective atmosphere that unsettles rather than reassures.

Each time the film returns to panoramic views of the future city, especially when Deckard's spinner ascends into the sky, Vangelis's score reappears with its sustained low-frequency rumbles and harpsicord-like string scales. This repetition works as a rhythmic cue, drawing the viewer back into a techno-industrial atmosphere marked by distance and melancholy.

As the perspective descends from aerial views to the street level, the sonic design shifts accordingly. The soundtrack alters its texture while sustaining the same affective estrangement. The score introduces slow, sustained drones that are gradually layered with sharper, high-frequency details, creating a synthetic tonality that conveys unease. Ambient noise emerges in the form of constant rain, the indistinct hum of traffic, and the murmur of distant engines, grounding the scene in a dense urban environment. Sound effects punctuate this atmosphere through the amplified presence of billboard voices, mechanical announcements, and the friction of passing aircraft, all rendered with heightened clarity. The fusion of non-diegetic and diegetic sound extends beyond realism. It exemplifies synchresis in Chion's sense, where sound and image become perceptually inseparable. The result is an affective atmosphere of alienation and longing, where emotion circulates not through dialogue or plot but through the rhythmic textures of the sonic-visual field.

Beyond the city panoramas, the affective atmosphere is reinforced in more intimate moments where sound functions as a somatic trigger. In the tunnel sequence, as Deckard drives through and recalls Holden's interrogation of Leon, the scene is filled with the sound effects of booming resonance of the tunnel. Here there is no melodic score. Instead, this absence leaves space for the boom sound and the remembered dialogue to strike with stronger sensory force. For ambient noise, the tunnel is filled with low-frequency reverberation, not tied to a specific source but felt as an enveloping presence. It swallows Deckard and viewer's body, creating an oppressive and claustrophobic atmosphere. For voice and dialogue, Holden's interrogation of Leon is recalled through fragments of dialogue, such as the moment when Holden asks Leon to describe his mother. These remembered lines are intercut with Deckard's subjective vision and close-up, binding speech to embodied perception. In the absence of score, the dialogue is foregrounded as a disquieting presence that anchors memory in the present. For sound effects, the booming resonance of the tunnel operates as a tactile pulse that reverberates through the scene. Its heavy rhythm provides a somatic backdrop against which other sounds strike with amplified intensity.

When the recalled gunshot as a sound effect overlaps with the tunnel's boom in a wide shot of the spinner, as if the shot occurs inside the tunnel itself（see Figure 39. This fusion binds memory to present space, transforming past violence into ongoing acoustic pressure. This exemplifies what Chion (1994) calls *added value*: the gunshot becomes more than a narrative event, returning as embodied memory. As a somatic trigger, it synchronizes memory, sensation, and space, pulling both Deckard and the viewer into an affective atmosphere of disorientation and anxiety.

Figure 39. In a wide shot, Deckard's spinner appears inside the tunnel. *Blade Runner*, dir. Ridley Scott.

This use of sound as a somatic trigger recurs in other sequences, most notably in Zhora (Joanna Cassidy)'s chase and death scene. The ambient noise of crowd chatter, advertising broadcasts, and traffic signals calling "cross now" blends with the blue and green neon, creating an oppressive atmosphere that feels inescapable. As Zhora runs, sound effects come to the fore: the sharp rhythm of high heels striking the wet pavement, the friction of her transparent raincoat, and her rapid breathing. These sounds are recorded at close range, pulling the viewer into her bodily experience. Deckard neither calls out to clear his path nor produces audible footsteps on the pavement (Massese, 2024). Instead, attention is placed on Zhora's acoustics of body and collision. As Massese (2024) observes, Deckard's silence contrasts with Zhora's persisting noises, underscoring her vitality as a corporeal individual rather than a mechanical replicant.

When Deckard fires, the sound effect of gunshots collide with the urban soundscape, amplifying the violence. As Zhora is hit and crashes into the shop window, layers of shattering glass resound in sharp high frequencies while Vangelis's score rises. Her two screams are covered by the music, shifting attention toward the composite effect of shattering, slow motion, and acoustic extension. Her death is staged less as raw violence than as a scene, even a performance. The fusion of music and breaking glass

produces an elegiac tone, allowing the viewer to sense the grandeur of tragedy rather than the gore of reality. This moment exemplifies Chion's (1994) notion of added value, as sound fuses with image to heighten the tragic resonance beyond narrative function.

At the end, as Zhora collapses, the soundtrack introduces a low, accelerating heartbeat as a powerful and possibly semi-subliminal sound effect. This synchronizes with her failing body, creating a strong sense of embodied resonance. When the heartbeat stops suddenly, it marks the moment of death, producing a somatic jolt that makes the viewer feel the impact of life's disappearance on their own bodies. Together, these elements shape an affective atmosphere that is oppressive yet elegiac.

In contrast, the opening title scroll of *Blade Runner* carries a sense of distant martial solemnity, which in *Blade Runner 2049* is deliberately replaced by a sharper synth brass sound (Glynn, 2020). The opening shots present a clear eye stripped of reflection and a vast, almost empty geometric landscape (see Figure 40). Following Lunning (2018), this suggests that there is no longer an "infernal city" to mirror, nor are there any "real" humans capable of "reflection." However, it also implies that there is no longer a "rich sight" to reflect upon，nothing of value remains in the world at this moment, so this wide visual field contrasts with the oppressive urban density of *Blade Runner*, emphasizing desolation, isolation, and estrangement.

The score by Hans Zimmer and Benjamin Wallfisch abandons melody, replacing it with drones, seismic bass, and heavy strikes. These sounds do not guide emotion. Instead, they create a physical force that the viewer both hears and feels. This design resonates with the visual emptiness of the landscape and emphasizes a world stripped of humanity and narrative meaning. Occasionally, the hum of the K's spinner aircraft is mixed in as a sound effect. It expresses the tension between the individual and the desolate environment, conveying the solitary presence of technology in an empty world.

At the same time, the ambient noise consists of dry and piercing wind over the farmland. The sound is mixed to carry a faint echo, as if it comes from the depth of the wasteland. It strengthens the sense of spatial emptiness and desolation. In this way, the soundscape mirrors the geometric barrenness of the image and draws the viewer into a sensory field of isolation.

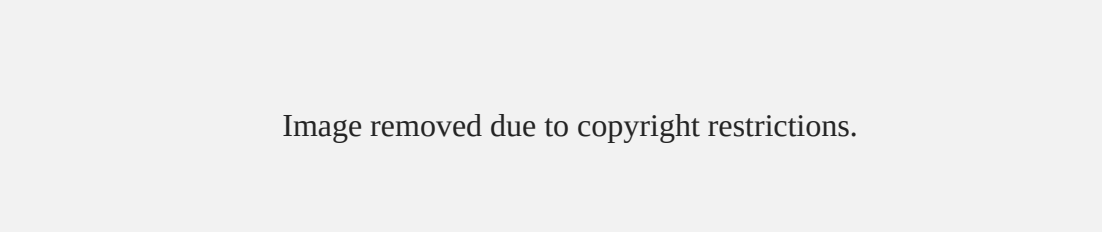

Figure 40. A clear eye stripped of reflection and a vast, almost empty geometric landscape. *Blade Runner 2049*, dir. Denis Villeneuve.

As the aerial shot moves from the barren solar farm to Morton's farmhouse, the hum and emptiness intensify, reinforcing the desolate and remaining ecological atmosphere. Here, the sounds become less narrative and more like environmental forces. They resonate with the visual suggestion of a post-human world emptied of vitality, immersing the viewers in an existential shock. The slowing of rhythm and the dissolution of melody suspend the sense of time, compelling the viewer to confront a cold, overwhelming world, producing an affective atmosphere of desolation and estrangement.

K's pervasive silence further intensifies this atmosphere. His sparing use of speech functions as a sonic absence that mirrors his fractured interiority. His muted words reflect both conditioned repression and existential doubt about the authenticity of his emotions. For viewers, this silence does not create emptiness but generates an affective field of estrangement and subdued longing for it to be filled. The absence of dialogue redirects attention to rhythm, gesture, and soundscape. Immersion is achieved not through verbal exchange but through the resonance between silence,

environment, and the fragile traces of emotion, matching the sparseness of visual design.

The pervasive silence surrounding K, coupled with the desolate soundscape, is intensified when he enters the Las Vegas sandstorm ruins. The environment carries almost no melody, only a deep, sustained synthesizer drone that is more felt than heard. This sound acts as bodily pressure, producing a heavy atmosphere. Intermittent traces of wind as ambient noise further expand the sense of emptiness and ruin. Visually, the monochromatic orange backdrop aligns with the rhythm of the low-frequency drone, creating a sense of suspended time. Linear temporality dissolves, and the viewer is drawn into a sensory state of pause. This temporal suspension lies at the core of the film's alienating affective atmosphere.

Camera movement reinforces this logic. Frequent push-ins pull the audience into space, generating both curiosity and pressure, while pull-backs expand the environment to overwhelming scale, emphasizing isolation. These movements counterpoint the drone's steady weight, so that image and sound together produce a dual sensation of engulfment and estrangement. The use of long takes slows narrative pacing, extending the perception of time. Combined with the non-melodic drone, they generate the effect of temporal freezing. Finally, as K approaches the beehive, the sound design shifts through the use of the sound effect of bees buzzing, which emerges with sharp clarity, recorded at close range so that its micro-vibrations can be felt. In Barthes's (1977) terms, this buzzing carries the "grain of the voice": a sonic texture that exceeds meaning and strikes the body directly. It is not heard as narrative information but as a tactile vibration, revealing a paradox of fragile yet persistent life within a landscape of ruin. The sound carries both a promise of hope and an amplification of solitude, intensifying the affective atmosphere of estrangement.

Based on the detailed analysis in Chapter 4, this study shows how the immersive worlds of *Blade Runner* and *Blade Runner 2049* are built through a layered system of visual and sound design. The findings reveal that elements, cinematography, art

direction, production design, mise-en-scene, set design, costuming and sound work together across macro, meso, micro, and rhythmic layers to create deep sensory engagement. These components produce effects such as cultural echo, spatial dynamics, and affective atmosphere, which pull the viewer into the fictional world. These results provide a clear foundation for further theoretical discussion. Chapter 5 will now explore the implications of these findings through key concepts from Deleuze and Guattari, Chion, Barthes, Marks, and Sobchack.

CHAPTER 5: DISCUSSION

This study examines how cinema builds convincing fictional worlds and creates immersion through visual elements. The first asks: how do six visual elements, cinematography, art direction, production design, mise-en-scene, set design, and costuming, contribute to world-building in the cyberpunk films *Blade Runner* and *Blade Runner 2049*? The second asks: in what ways do these visual elements along with the auditory dimension collectively generate immersive perception through sensory resonance?

To address these questions, the study has applied a qualitative comparative case study and close textual analysis, using a layered perceptual framework. This framework divides world-building into macro (geopolitical, ecological, cosmological), meso (political, economic, cultural, class), and micro (intimate, affective) layers, with an added perceptual rhythm layer to integrate auditory elements.

Chapter 4 provided detailed analysis of the two Blade Runner films, showing how the six visual elements operate across these layers and interact with sound. This chapter synthesizes the findings, directly responds to the research questions, and places them in dialogue with the theories of Deleuze and Guattari, Chion, Barthes, Marks, and Sobchack.

5.1 Synthesizing Findings: How Visual Elements Build Worlds and Generate Immersion

In response to the first research question, at the macro layer, production design, art direction, and cinematography work together to establish the physical and cultural foundations of the world. *Blade Runner* constructs a postmodern landscape of decay through low-saturation, high-contrast tones, an environment of acid rain and smog, and vertically congested, culturally hybrid cityscapes. By contrast, *Blade Runner 2049* employs broad monochromatic palettes, a climate of cold and dust, and brutalist and minimalist architecture set within barren landscapes to create a world that is stark and controlled. The former emphasizes hybridity and decline, while the latter highlights severity and order.

At the meso layer, mise-en-scene is the key tool for revealing social structure. In both films, spatial positioning, architectural pathways such as the ritualized routes to the police station or Wallace's office, and compositional framing make political hierarchies, economic flows, and cultural rituals tangible. Costuming, in close relation to mise-en-scene, inscribes social identity. In *Blade Runner*, Deckard's trench coat signals authority yet fatigue, while Pris's punk style marks marginality. In *Blade Runner 2049*, K's uniform, the homeless population's wrappings, and Joi's algorithmic image push this further, showing class as both rigid and erased.

At the micro layer, set and costume design shape emotion and subjectivity, anchoring world-building in intimate and affective spaces. In *Blade Runner*, Deckard's concrete apartment and weary clothing materialize detachment. Rachael's costumes trace a shift from artificiality to subjectivity. In *Blade Runner 2049*, K's austere home and rigid uniform express emotional deprivation. Stelline's pale garments and sterile chamber, exposing intimacy as medicalized and virtualized, while Joi's projected outfits move between private simulation and public commodity, revealing intimacy as

commodified.

To answer the second research question, this study finds that immersion emerges from the interplay of visual elements, sound, and bodily perception. Within the multisensory resonance model, this dynamic takes shape through three dimensions: cultural echo, spatial dynamics, and affective atmosphere.

In *Blade Runner*, cultural echo is created through hybrid architecture, retro technologies, and neon advertisements. These elements evoke collective memories of urban decay, consumerism alienation, and Cold War anxiety. Spatial dynamics are expressed through vertical city structures, surveillant camera angles, and oppressive contrasts of light and shadow, positioning the viewer within an inverted hierarchy of power and making them feel bodily controlled and vulnerable. Affective atmosphere is conveyed through constant rain, low-frequency noise, and Vangelis's cold synthesizer score, producing a sensory environment that is both melancholic and oppressive. The result is an immersive experience in which the viewer is drawn not only visually but also aurally and bodily into a noir future marked by estrangement and longing.

In *Blade Runner 2049*, cultural echo appears in references to minimalist modernist architecture, ecological ruins, and digital intimacy. These images evoke contemporary anxieties about environmental crisis, technological alienation, and the commodification of virtual emotion. Spatial dynamics are created through wide shots, monochromatic palettes, and drone-like compositions, producing a flattened and dehumanized order that makes the viewer feel the smallness of the individual and the absolute control of the system. Affective atmosphere is shaped by the heavy synthesizer score of Zimmer and Wallfisch, combined with silences in the soundscape and a slow narrative rhythm. Together they create a cold, nihilistic, and existential immersion, in which the resonance of sound and image conveys the desolation and spiritual emptiness of a posthuman world.

In addition, this study proposes the concept of the perceptual resonance loop. It explains immersion not as a fixed result but as a dynamic process. The process arises from the interaction between detail density and consciousness reception rate, and it unfolds in three stages: trigger mechanism, rhythmic participation, and shared reality. The analysis in chapter 4 findings provides empirical support for this model.

First, the findings confirm the initial trigger mechanism of immersion. The two films use opposite strategies to achieve a similar effect, showing the dynamic balance between detail density (cultural echo, spatial dynamics and affective atmosphere)and consciousness reception rate. *Blade Runner* creates immersion through sensory overflow, with high visual, auditory, and spatial density. Neon lights, billboards, rain, street noise, and crowded bodies accumulate layer by layer, while sharp contrasts of light and shadow intensify the pressure. This forces the viewer's consciousness reception rate to adjust to its rhythm. In contrast, *Blade Runner 2049* creates immersion through sensory restraint. It reduces visual density by using empty ruins and monochromatic fields, and lowers auditory density with deep drones and long silences, while increasing spatial rhythm through slow tracking shots and wide shots. This strategy of absence does not weaken immersion. Instead, it heightens the viewer's consciousness reception rate, making them more sensitive to limited sensory details and more deeply attuned to the film's slow and meditative rhythm.

Second, the findings identify the precise moments when rhythmic participation occurs. These moments usually take place when the narrative pauses and the sensory rhythm shifts in a marked way. For example, in *Blade Runner*, during Deckard's chase of Zhora, the shaking of the handheld camera, the flicker of neon lights, the noise of the crowd, and the sharp sound effects combine to create a high-density sensory field. This directly triggers accelerated heartbeat and muscular tension in the viewer, producing an emotional impact that bypasses cognition. A parallel can be found in *Blade Runner 2049*, in the dust storm sequence in Las Vegas. The image is reduced to

a single field of orange, the sound is lowered to a minimum, and the camera movement slows down. This sensory design of de-rhythming forces the viewer to adjust their own physical rhythm. Breathing slows, the heartbeat softens, and the body enters the same stillness that defines K's experience. At this moment, the viewer and the character share a physiological rhythm of breathing. This marks the key shift from watching the film to existing within it.

Finally, the findings suggest that immersion reaches its highest stage through the creation of a shared reality. Although this shared reality as a subjective experience cannot be confirmed by textual analysis alone, the deep sensory and rhythmic synchrony established in the first two stages strongly indicates the potential for viewers and films to co-generate a perceptual world. In this generative experience, viewers do not only interpret the world but briefly inhabit it, and this effect may continue beyond the screening, as when *Blade Runner* alters how viewers perceive real urban space. Future research may test this stage through audience surveys, physiological measures, neurocinematics and etc.

5.2 Dialogue with Theoretical Framework

This study, in dialogue with theorists such as Deleuze, Marks, and Sobchack, shows that the sense of immersion in the *Blade Runner* series does not arise primarily from narrative structure or semantic decoding, but from layered rhythmic and sensory resonance. The dynamic interaction of these audiovisual elements produces a process of resonance-as-becoming, in which the viewer shifts from an observer to an embodied participant who vibrates in sync with the film world.

First, Deleuze (1986)'s affection-image conveys pure affective intensity, bypassing narrative logic to act directly on the viewer's body. The findings of this study strongly reflect this idea. For example, in the opening of *Blade Runner*, the close-up of city flames reflected in an eye is not simply a visual metaphor but a clear instance of the

affection-image. It does not advance the plot but produces a powerful visual and emotional impact, evoking in the viewer a sense of estrangement and threat.

Deleuze (1986)'s concept of the any-space-whatever is given concrete form in this study. Such spaces are stripped of functional coordinates and become pure fields of affect and perception. Wallace's ritualized chamber and K's apartment are typical examples. They no longer operate as functional narrative settings but as perceptual environments saturated with emotion and power. Wallace's chamber resembles both an altar and a prison, while K's apartment appears cold and hollow, devoid of human warmth. These spaces do not serve the story but directly shape the viewer's emotional experience.

However, this study also reveals a limitation within Deleuze's concept of the any-space-whatever, particularly its tendency toward dehistoricization and depoliticization. What is the fundamental cause behind the state of "emptiness" or "saturation" in the any-space-whatever? How does the process of "stripping" occur? These are the very questions this study seeks to address. For example, Wallace's temple-like headquarters is not a neutral philosophical metaphor. It is a spatial embodiment of monopoly capitalism in the post-Tyrell era. After absorbing the Tyrell corporation, Wallace gained full control over the biological reproduction of replicants. This economic and technological power is materialized as a space that combines the sacredness of an altar with the surveillance logic of a prison. Similarly, the emptiness of K's apartment is not neutral. It is a standardized officer dormitory carefully designed for replicant enforcers. The aim is to efficiently reproduce labor while eliminating the possibility of individual emotions or memories. Its hollowness is evidence of systemic control and the spatial manifestation of class hierarchy.

This study argues that the spaces of Wallace and K are not "any-spaces" by nature. Rather, they are the result of active production by historical forces such as late capitalism, technological authoritarianism, and class-based control. The process of

stripping away specific functions from these spaces is not neutral. It is a political act of power that removes other uses and meanings in order to achieve control and exploitation. In the end, this analysis shows that the “any-space-whatever” must be understood as a “produced-space-within-history”. Only by restoring its historical and political dimensions can this concept gain stronger explanatory power.

More importantly, this study extends Deleuze and Guattari (1987)’s idea of becoming by proposing a dynamic process of resonance-as-becoming. The viewer does not passively receive information but gradually synchronizes with the perceptual logic of the film world through visual, sonic, and spatial elements. For example, when K moves slowly through the San Diego district, the combination of slow tracking shots and static wide shots creates what Deleuze calls the time-image. This suspends narrative and leads the viewer into a meditative and embodied sense of pressure. At this moment, the viewer does not simply watch the film but resonates with its rhythm, becoming part of the immersive world.

Second, Marks (2000)’s idea of haptic visuality stresses that vision can work like touch, activating embodied memory and sensory response. The findings of this study support this view. At the level of costume and material, the texture of Rachael’s clothing is not only seen but also felt. Its surface invites the viewer to “read” her coldness and artificiality in a tactile way. Similarly, the change in K’s uniform from tight to loose is not only a visual shift but also a material narrative. The viewer can almost sense the fabric moving from rigid to heavy, empathizing with his passage from obedience to awakening. At the environmental level, Stelline’s home office and virtual forest stand as another example of haptic visuality. They appear touchable but remain beyond reach. This suspension of touch deepens the sense of her isolation and loneliness. The viewer is invited to touch through vision, yet refused at the same time, which makes her condition felt even more strongly. This idea finds its most powerful expression in the character of Joi. Her entire existence is a haptic illusion, a projection designed to simulate intimacy but ultimately untouchable. When she tries to feel the

rain or merge her form with another body, the film uses highly realistic visuals to create the illusion of touchable closeness. Yet, it always reveals her virtual nature and the physical gap that cannot be crossed. This feeling of reaching without ever touching creates a new and powerful sensory force. It directly generates the character's loneliness, sense of disconnection, and the fragile unreality of the world around her.

It is important to note that Marks's theory is rooted in a cinematic era that focused on physical objects and material textures, such as the grain of film or the presence of real objects on screen. Her framework explains well how visual images can evoke the sense of touch through things that appear tangible. However, it may not fully address the new conditions of the digital age. What kind of affective power lies in things that cannot be touched but only seem touchable? In *Blade Runner 2049*, the most intense haptic sensations do not come from the feeling of touch being realized. Instead, they emerge from the extreme desire to touch something that cannot be touched. This is a shift from haptic fulfillment to haptic absence or suspension. Stelline and Joi together represent a key transformation in haptic visuality. Their worlds are not built on memories of physical contact, like Rachael's fur coat or the tight fabric of K's uniform. Instead, their emotional power comes from simulating the *potential* for touch. This shifts the theoretical focus. It is no longer about how vision recalls touch, but how it generates the longing to touch, and the emotional frustration that follows. This study argues that Marks's theory needs to be expanded to explain the affective force of haptic failure in digital cinema. In this context, the inability to touch can carry more emotional weight and meaning than touch connection itself.

Sobchack (1992) argues that film experience is embodied. Viewers do not watch with the eyes alone but feel the film with the body. The findings of this study strongly confirm this point, especially in how camera movement and spatial design guide bodily perception. In the sequence where Deckard chases Batty, the instability of handheld shots, the sharp division of light and shadow, and the use of off-screen

sounds make the viewer share Deckard's imbalance and fear. The viewer is not a detached observer but is placed in the same bodily state. In the Baseline test scene, as the camera slowly pushes toward K and the space tightens, viewers also feel their breath constrict and their body under pressure. This creates a direct, embodied sense of psychological oppression.

However, this study also notes that in analyzing Blade Runner 2049, director Villeneuve and cinematographer Deakins' construction of embodied experience not only continues the tradition but also extends into areas that Sobchack's theory does not fully address. Sobchack's model is rooted in a human-centred phenomenological framework, where the core is the resonance between the viewer's lived body and the "film's body". However, *Blade Runner 2049* systematically builds a new, "dehumanised" mode of perception, forcing the viewer's "body" to adopt a cold, algorithmic perspective. This mode of dehumanized perception is most clearly expressed in the film's frequent use of drone point-of-view shots. When K deploys a drone to scan Sapper Morton's farm, the viewer's perspective becomes fully aligned with the drone. We no longer share K's doubt or tension. Instead, we enter a calm, detached, and slightly oppressive logic of surveillance. The frame is often divided by grids, the camera movement is smooth but emotionless, and the targets are clear but lack affect. We are not feeling with a character, we are executing a programme. Deleuze's concept of "any-space-whatever" takes shape here as a pure perceptual interface stripped of narrative and emotional function. The viewer's body still "experiences," but the content of that experience is no longer grounded in human empathy. It becomes a technological visual order. We are simulating the machine.

This kind of alienated embodied experience offers both a valuable extension and a challenge to Sobchack's theory. Her model of body-image resonance is highly effective in explaining human-centred and emotionally charged viewing. However, it becomes limited when faced with systematic and impersonal visual arrangements like those in *Blade Runner 2049*. The film no longer asks us only to "become the

character." It also allows us to "become the system," to become the eye of surveillance. This does not reject embodiment. Rather, it expands the kinds of perception the body can host in cinema. The body can empathize, but it can also control. It can inhabit the position of the other but also connect to the non-human. Sobchack's theory lays the foundation for understanding the relationship between film and the body. Yet *Blade Runner 2049* suggests a new direction for this relationship in the context of technology. Embodied experience is no longer limited to human emotional imitation. It now also includes perceptual grafting.

Chion (1994)'s concepts of synchresis and added value, together with Barthes's (1977) idea of the grain of the voice, are strongly confirmed in the auditory analysis of this study. In *Blade Runner*, Vangelis's score merges with sound effects to create a unified and enveloping auditory field. Industrial noise, advertising voices, rain, and synthesizer textures interweave to intensify the city's atmosphere of pressure and alienation. More specifically, the study shows how sound gives visual images added value. In the scene of Zhora's death, the combination of gunshots, shattering glass, heartbeat, and slow motion does more than enhance the shock of violence. It adds a ritual sense of tragedy. Here sound does not assist narrative but reshapes the emotional weight of the visual event, a clear instance of Chion's claim that sound makes the image "more," richer, and more bodily felt. Barthes's idea of the grain of the voice, the material and bodily quality of sound that cannot be reduced to signification, also appears in *Blade Runner 2049*. When K approaches the hive in the ruins of Las Vegas, the sudden emergence of the bees' buzzing does not convey narrative information. Instead, it flings the physical presence of life directly at the listener. Its vibrating texture works on the senses and produces an embodied response of presence.

Through dialogue with the above theoretical frameworks, this study not only confirms the continued relevance and explanatory power of scholars such as Deleuze and Guattari, Marks, Sobchack, Chion, and Barthes in analyzing contemporary science

fiction cinema, but also extends the boundaries and applicability of their theories through close critical engagement. Specifically, this study develops Deleuze and Guattari's concept of becoming into a model of "resonance as becoming," emphasizing the dynamic synchronization between the viewer and the film's rhythm. Importantly, it expands Deleuze's notion of any-space-whatever by adding historical and political dimensions, revealing it as a perceptual environment shaped by power and technology. At the same time, this study extends Laura Marks's theory of haptic visuality to address the emotional and sensory power of haptic absence or suspension in the digital age, beyond memories of physical contact with material objects. In addition, Sobchack's model of embodied viewing is reexamined and expanded beyond human-centred emotional resonance, to include non-human, system-based perceptual modes such as the drone POV in Blade Runner 2049. This allows for an exploration of new body-image relations in which the viewer becomes the system rather than the character, reflecting the evolving complexity of perception in a technological context. Finally, the study repositions Chion's concepts of synchresis and added value, as well as Barthes's grain of the voice, not merely as narrative tools but as core mechanisms for shaping affective structures and atmospheres. These theoretical refinements help classic models better respond to the complexity of contemporary audiovisual culture.

CHAPTER 6. CONCLUSION

In this study, I have investigated how six visual elements—cinematography, art direction, production design, mise-en-scene, set design, and costuming—contribute to world-building in the cyberpunk films *Blade Runner* and *Blade Runner 2049*. I also examined how these visual elements, together with the auditory dimension, collectively generate immersive perception through sensory resonance.

The results indicate that the six visual elements collaborate across three layers of world-building: the macro layer establishes the foundations of the world, the meso layer structures social order, and the micro layer shapes affective experience. Immersion emerges through multisensory resonance between audiovisual elements and bodily perception, unfolding across the dimensions of cultural echo, spatial dynamics, and affective atmosphere. *Blade Runner* relies on strategies of sensory overflow to generate an immersive experience of oppressive melancholy, while *Blade Runner 2049* employs strategies of sensory restraint to create a cold and nihilistic atmosphere. The study further introduces the concept of the perceptual resonance loop, which explains immersion as a dynamic process that moves from trigger mechanism, to rhythmic participation, to the creation of a shared reality. In this way, the viewer is transformed from merely watching the film to dwelling within its world

Having synthesized the findings, the following sections outline their broader significance. Section 6.1 discusses the theoretical contributions. Section 6.2 considers the implications for film theory and analysis. Section 6.3 reflects on the study's limitations and directions for future research.

6.1 Theoretical contributions

The theoretical contributions of this study are presented in three aspects.

First, this study's primary theoretical contribution is the introduction of the multisensory resonance field as a unifying framework for understanding cinematic immersion. This model integrates perspectives that were previously fragmented, including Sobchack's account of embodied experience and Chion's theory of the audio-visual relation. It shifts the focus from semantic decoding to perceptual structure. Within this framework, the study presents two key mechanisms: the multisensory resonance model and the perceptual resonance loop.

The multisensory resonance model explains immersion through three analytical dimensions. The first is cultural echo, which activates cultural memory. The second is affective atmosphere, which shapes emotion through sound and rhythm. The third is spatial dynamics, which creates resonance between the body and the screen space. Alongside this, the perceptual resonance loop conceptualizes immersion as a dynamic process. It begins with the trigger mechanism, moves into rhythmic participation, and concludes with the formation of a shared reality. This loop also clarifies how detail density and consciousness reception rate sustain immersion in non-interactive cinema.

Second, this study broadens the position and function of visual elements in film research. The study shows that they are not decorative backgrounds for narrative, but active sensory mediators. Through multilayered interaction, they directly regulate the viewer's bodily rhythm, emotional state, and spatial perception.

Finally, this study demonstrates that the integrated framework of the three world-building layers plus the perceptual rhythm layer provides a valuable conceptual framework for film analysis. It is particularly suited to genres like cyberpunk, enabling a more precise understanding of how immersive and affectively resonant worlds are constructed through sensory design.

6.2 Implications for Film Theory and Analysis

Rather than reiterating the theoretical contributions outlined above, this section considers their broader implications for film theory and analysis.

This study contributes to an ongoing reorientation in film studies from interpretive frameworks centred primarily on narrative and symbolic meaning toward approaches grounded in perception, embodiment, and sensory experience. By conceptualizing immersion as a multisensory and dynamic process, the proposed framework encourages a shift in analytical attention from what films signify to how they are experientially encountered.

Within film theory, the multisensory resonance field offers a way of understanding cinematic worlds as perceptual environments rather than solely narrative constructs. This perspective complements established narrative approaches to world-building by demonstrating that the sense of a coherent film world emerges not only through story logic but also through the orchestration of visual and auditory cues that structure the viewer's embodied engagement.

For film analysis, the framework provides a conceptual lens for examining how sensory elements operate collectively to shape cinematic experience. It foregrounds the role of affective atmosphere, cultural echo, and spatial dynamics in generating immersion, thereby supporting analytical models that move beyond plot-centred or purely symbolic readings. In doing so, the study advances a more integrated account of how films organise perception and guide audience experience.

These implications are particularly significant for genres such as science fiction and fantasy, where constructed environments play a defining role in shaping experiential reality. By emphasizing perceptual coherence alongside narrative structure, the study contributes to a more comprehensive theoretical understanding of how immersive film worlds are formed and sustained.

6.3 Research Limitations and Future Directions

This study has several limitations, which also point toward possible directions for future research.

First, the analysis focused on *Blade Runner* (1982) and *Blade Runner 2049* (2017), two cyberpunk films within the same narrative universe. This choice allowed for a deep comparison across more than three decades, making it possible to trace continuity and change in world-building and perceptual mechanisms. At the same time, this focus limits the scope of the findings. Cyberpunk as a genre has distinctive

aesthetic and ideological features, and even within the genre there is wide variation. For this reason, the conclusions may not apply to other genres or to the full range of cyberpunk texts. Future research could address this limitation by applying the multisensory resonance model to more diverse genres, such as historical drama, romance, or art cinema, and to films from different cultural traditions, such as Asian science fiction or African futurist cinema. Cross-genre and cross-cultural comparisons would test the universality of the framework and highlight the specific ways different traditions construct immersion.

Second, this study relies on qualitative analysis, emphasizing theoretical perspectives and close readings of film texts. This approach uncovers the relation between image and perception in depth, but it cannot confirm how viewers actually respond. For example, the proposed perceptual resonance loop remains a theoretical explanation, without empirical audience data such as surveys, interviews, or physiological measures. To build stronger evidence, future research should combine qualitative analysis with methods from psychology and neurocinematics. Techniques such as eye-tracking, EEG, or galvanic skin response could provide concrete data on attention, neural activity, and emotional arousal. Mixed methods that integrate theoretical modelling with empirical testing would help validate and refine the mechanisms of multisensory resonance.

Third, the concepts of the multisensory resonance field, the multisensory resonance model, and the perceptual resonance loop are grounded mainly in Western theory, drawing on Deleuze, Marks, and Sobchack. While this foundation ensures coherence, it also excludes non-Western aesthetic and perceptual traditions. In cultures such as China, India, or Japan, ideas of perception are shaped by different philosophical lineages, including yijing (artistic conception), rasa, and mono no aware. Future studies should incorporate such traditions to expand the framework and develop a more inclusive model of cinematic perception. Cross-cultural dialogue could

challenge or enrich the Western paradigm, leading toward a theory with global relevance.

Finally, although this study emphasizes multisensory experience, the analysis is restricted to vision, hearing, and embodied orientation. Senses such as smell and taste remain largely absent from cinema, which limits the model's explanatory range. This gap becomes more pronounced with the rise of immersive technologies, including VR, AR, 4D motion cinema, and full-sensory installations, where multiple sensory channels are engaged. Future research should therefore investigate how these technologies expand the sensory palette and reshape narrative immersion, making it possible to test the adaptability of the multisensory resonance framework beyond traditional film.

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