

In Focus

Toward Production Design Metaphor: Implications of Situated Authorship and Meaning-Making



KATRIINA ILMARANTA, independent researcher, Finland;
e-mail: katriina.ilmaranta@pixelmint.fi

ABSTRACT

The task of production design is to create locations where cinematic events occur. Since the subjective experiences of the characters in the film are mainly observable externally, the entire film practice aims to express them through secondary means, for example by design and cinematography. The filmmaker can choose what she brings to the foreground from the character's experience and what aspects she emphasizes. In the case of production design, it is possible to express metaphorical correlations through the spatialization process of cinematic events while anticipating the embodied situatedness of the camera and the eventual film viewer. The notion of situated authorship is discussed through iconic design examples from *Gone With the Wind* and *The Birds*, which have historically shaped the concept of production design practice. In the case study referring to my work as a designer, I intend to evaluate the schemas used in the spatialization process in the context of Embodied Simulation Theory (EST) and Conceptual Metaphor Theory (CMT). Here, I propose the idea of a dynamic staging scenario that indicates how cinematic movement – especially the action of the scene and the movement of the camera onset – is considered in spatialization. With the discussion, I conduct a design analysis with which the properties of the space can be evaluated based on the concepts of image schema, primary metaphor, and conceptual metaphor.

KEYWORDS: production design, mise-en-scène, film practice, situated authorship, conceptual metaphor theory, primary metaphor, image schema, dynamic staging scenarios

“Transcendent production design isn't just about getting surfaces right, any more than great acting is just memorizing words. It's about translating writers' and directors'

intentions into a crystallized universe that's both visceral and rich with meaning, telling parts of the story that even the best actors can't.” (Kachka 2017)

INTRODUCTION

This paper discusses in the framework of embodied cognitive science how production design metaphors are established while making a film. In this context, it delves into the idea of production design. The term became first known in the 1930s when William Cameron Menzies developed new methods of approaching the design process while working on *Gone With the Wind* (Ettegui 1999: 8). Since his days, production design has become an established profession that combines the vision of the film as art and craft. In Robert Boyle's definition, "the production designer is responsible for the space within which the film takes place" (Raim 2015: 04:34–04:37).

The metaphor concept has been central in both stage and film design practices. In the theater area, the stage itself can be regarded as a metaphor for the world; thus, anticipating every element it contains is symbolic (Israel 1992). Likewise, it is widespread for film designers to describe their task as creating worlds viewers "can believe in" (Halligan 2012: loc 69). "I like to be able to create a whole world on the screen," contemplates Anna Asp, a designer of Bergman's *Fanny and Alexander* (1983). For her, the elements of this world, i.e., scenic environments, are highly suggestive, representing the nature and motivations of the characters in sophisticated ways, thus contributing to the storytelling (Ettegui 1999: 111–12). Seemingly, in Asp's characterization, the film design is seen as a metaphorically oriented holistic space to be immersed in while seeing a film.

The purpose of this article is not to discuss how the metaphorical expression has been understood in the production design tradition; instead, my aim here is to find some starting points for *systematic metaphor analysis in the context of embodied cognitive science*. That is why I have turned to the highly influential Conceptual Metaphor Theory (henceforth CMT) first introduced by Lakoff and Johnson ([1980] 2008) in *Metaphors We Live By*. Lakoff and Johnson have provided a radical understanding of metaphor, which can be

considered a primary mechanism structuring human thought: "Metaphor is primarily a matter of thought and action and only derivatively a matter of language." According to CMT, a metaphor is constituted as domains that act as a pair of counterparts, one of which is abstract, the other concrete based on sensory perception and bodily experience. Eventually, combining these two domains means that abstract concepts will become comprehensible through sensory-motor experience. The basis of metaphors thus lies in "correlations" that make it possible to understand "one kind of experience in terms of another kind of experience" (ibid.). At a later stage, CMT was supplemented with the notion of primary metaphors (Grady 1997, 1999, 2005; Lakoff, Johnson 1999).

Metaphors are founded on *the conceptual organization* that arises from the interaction between a human and his environment. Johnson ([1987] 2013) and Lakoff ([1987] 2008) have utilized the notion of *image schema* to evaluate these perceptual configurations. Image schemas refer to dynamic spatiotemporal relationships between the entities in the perceptual field, thus creating logic for lived experiences. While doing so, image schemas imply *embodied cognition*, the thesis further developed in Embodied Simulation Theory (henceforth EST). EST first came into focus mainly thanks to the empirically based mirror neuron theory (see Gallese 2005 for a review). However, it can be more broadly understood to refer to all interpersonal relationships, including our attachment to the characters films portray. By observing an actor's movements or emotional states, the activation occurs in the areas of our brain without us participating in the actual activity. Significant foundations for a new cognitive film study have been built by Coëgnarts (2017, 2019), Coëgnarts and Kravanja (2012a, 2012b, 2014, 2016a, 2016b), Gallese and Guerra (2012, [2015] 2020), and Tikka (2008, 2022).

Overall, CMT focuses more on the verbal manifestations of conceptual metaphor. However, if it is true that metaphor is "not

a figure of speech, but a mode of thought” (Lakoff 1993: 210), then it would also be possible to study nonverbal expressions according to the assumptions of CMT. From this point of view, metaphor is, for example, studied by Fahlenbrach (2016, 2017), Forceville (2017), Forceville and Palins (2021), Forceville and Renckens (2013), and Ortiz (2011, 2015), emphasizing embodiment of either the visual or the cinematic metaphor. From other cognitive linguistics, Kövecses ([2000] 2003, 2010, 2015) has inspired the writing of this article in terms of ideas of emotion metaphors and providing perspective on universal vs. cultural metaphors. Some earlier insights for this research have been provided by phenomenologists Merleau-Ponty ([1945] 2003), and Sobchack (1992, 2016), as well as Gibson (1979), a representative of ecological psychology.

In my writing, I usually navigate toward production designer interview material, which is as uncommented on as possible. Research works on production design have been scarce, but some works are worth mentioning in the context of this research. Affron and Affron (1995), Barnwell (2017a, 2017b, 2018), and D’Arcy (2018) all recognize in their way the dynamic nature of the scenery space but suggest that the set is a kind of narrative device. For D’Arcy, “film space” is, in Barthesian terms, “perceived by an audience as a text within a shifting *mise-en-scène*.” On the contrary, Barnwell’s “visual concept analysis” is a systematic model of the designer’s work process and emerges from practice. It is based on “*mise en scene* theory in that it textually analyzes the image but differs in that it identifies key areas that the PD [production designer] is responsible for” (Barnwell 2018: 15). McCann (2002, 2004) and Tashiro (1998) rely partially on architectural phenomenology, utilizing a variety of concepts implying human–environment interaction.

The influence of narratology, semiotics, and even psychoanalysis on how the questions of production design are articulated in the field’s literature is observable. Thus, it is essential to understand the opposition of my goals (or generally the

goals of CMT) to these theoretical lines of thought. In my research, production design – even in its finalized form onscreen – exemplifies *instead a space that is experientially lived rather than an image that is textually read*. It associates in a naturalistic way with the environment, the world, and the universe. Obviously, I see the design issues relating to storytelling mechanisms, but I approach the meaning-making process in a specific context.

CMT and EST Utilized

If our ability to produce metaphors is based on the spatialization of abstract concepts and the synesthetic construction of images that call to mind the action of our corporeality on something intangible and elusive, then cinema, which is essentially the spatialization of corporeal actions and intentions, naturally shapes visual metaphors that are based on easily recognizable motor and bodily schemas, often embodied by camera movement (Gallese, Guerra [2015] 2020: 93).

The above quote explains why the intertwining of EST and CMT could create a fruitful starting point for production design analysis. Guerra and Gallese describe embodied simulation as a mechanism that “can facilitate the construction of a direct and non-linguistic relationship with space, objects, and the actions, emotions, and sensations of others” (ibid.: xix). While this applies to our experience of the actual world, it is also true in the case of fictional worlds of cinema, *which afford as the simulation of the real* (ibid.; Coëgnarts 2017; Tikka 2022: 50).

Barnwell (2017a) sees the spatialization of the story as one of the central parts of creating “the visual concept” of the film design, thus enabling “the movement and transition of character.” However, in this research, I aim to establish that scenic environments are, in a more profound way, programmed to enable cinematic movement,

of which various forms are – in addition to the movement of people and objects within the frame – *also the movement of the camera in various physical and optical forms or movement from one frame to another* (Heath 1976: 78–9; Sobchack 2016).

As Coëgnarts and Kravanja (2014: 155) have pointed out, cinema subjectivity is a complex issue. From the spectator's point of view, when a cinematic narrative unfolds, events are perceived via action. However, the film is not just a presentation of events from an external perspective; for the fictional film, it is essential to create an emotional connection with the viewer, an experience of empathy (Gallese, Guerra 2012, [2015] 2020; Tikka 2008). Coëgnarts and Kravanja (2014: 155) describe a paradox regarding the logic of cinematic subjectivity: "On the one hand, perception is necessary to show and visualize the character's internal mind set [*sic*]. One can only see or hear the internal content of a character's mind by externalizing it." Therefore, an essential goal for all the areas of film practice is to make perceivable what the imaginary characters experience in their minds – or, strictly speaking, it is a question of what filmmakers choose to make perceivable. In the design context, this implies that the concrete scenic elements often have a metaphorical dimension, which practitioners manipulate intuitively. As Barwell (2017b: 105) puts it, "decor 'speaks', paraphrasing the narrative's concerns and architecturally reflecting the emotions and mental states of the individuals inhabiting it."¹ Consequently, the question here is, how does it speak? How do we know, what does it say? Is it a speech on a verbal level to begin with?

My article aims to look at how the design process – the construction of studio structures and the selection of locations

(indoors or outdoors) – contains spatialized schemas for staging the action, allowing cinematic movement to happen. Regarding cinematic movement, I primarily focus on the movement of the characters and the camera onset; however, these schemas could also be viewed concerning editing. Production design also utilizes two-dimensional elements, traditionally painted backdrops, glass mattes, and, nowadays, digital visual effects (VFX). However, evaluating these areas of practice would require a separate examination concerning how these involve spatial schemas. Following this, I aim to evaluate the schemas used in staging in the context of CMT. I use the production design process of two historical films – *Gone With the Wind* (Fleming 1939) and *The Birds* (Hitchcock 1963) – as examples, and finally analyze my work as a case study.

According to Lakoff ([1987] 2008), thinking involves imagination by utilizing metaphors, metonyms, or mental imagery. The structures on which conceptual thinking is based arise from bodily experience: perception, body movement, and experiencing physical and social character. Thinking has complex gestalt properties, i.e., it is not "atomistic" in nature. Lakoff calls these knowledge-organizing gestalt structures cognitive models (so-called idealized cognitive models), examples of which are image schemas and metaphorical and metonymic mappings. Image schemas, which Lakoff (*ibid.*; see also Johnson [1987] 2013) describes as "multimodal patterns of experience," are preconceptual and typically do not operate on a conscious level. Image schemas also basically structure the spatial experience, thus including an implication of interaction with humans and the environment on an embodiment level (Lakoff [1987] 2008). It should be recognized that while "image schemas can generally be defined as dynamic analog representations of spatial relations and movements in space," they are not "themselves sensorimotor processes" (Gibbs, Colston 1995: 349).

1 Barnwell relies here on McCann (2002: 2; 2004: 375) and, strictly speaking, refers primarily to the studio setting. Noteworthy is that space in this research does not explicitly imply the concept of architectural space, which is the foundational idea for Barnwell's (2017b: 84) approach to production design space; rather, it suggests the spatial dimension of all human–environment interaction.

Image schemas structure complex concepts “through metaphorical mapping from physical space to ‘conceptual’ space.” One of the first conceptual metaphor mappings presented by Lakoff and Johnson ([1980] 2008) was ARGUMENT IS WAR and LOVE IS A JOURNEY. Here, experiences of argument and love – basically abstract conceptualizations – are understood via the experiences of war and journey, which, on the contrary, refer to the concrete or physical realm. The target domain (argument, love) is what we try to understand in terms of the source domain (war, journey) (ibid.). Grady (1997) suggests that complex correlational metaphors are often based on the existence of experiential metaphorical patterns. This kind of patterning is exemplified in the metaphor MORE-IS-UP, which is based on the perception that when objects pile higher, there are more of them. Compared with LOVE-IS-JOURNEY (being inherently not the primary metaphor), the last one provides more sophisticated variations of associations and inherits from the primary metaphor RELATIONSHIP-IS-ENCLOSURE in the sense that lovers can be associated with travelers and journey with the vehicle (ibid.: 14; Lakoff, Johnson 1999: 66). Primary metaphors are formed when we are young and combine abstract concepts with our firsthand sensory-motor experience and thus “cannot be explained by mechanisms such as analogy, nor by relations such as cause-effect or identity, which underlie other sorts of blends” (Grady 2005: 1595). However, any minimalistic metaphor can be developed into a richer one by replacing the experiences of the domains with substitute concepts, which in the case of primary metaphors leads to “universal conflations, which then develop into universal (or widespread) conventional conceptual metaphors” (Lakoff, Johnson 1999: 50). The notion of primary metaphor is quite relevant within production design since in the context of storytelling the spatialization needs to involve also the universal metaphorical dimension, which derives directly from the world as we automatically and unconsciously experience it. Especially, for

future research, it is equally important to note that production design also utilizes more complex metaphorical and metonymical correlations than can be understood via CMT, some of which will be briefly discussed in this article.

MISE-EN-SCÈNE REEVALUATED

It is widely accepted that film theories poorly describe the role of production design in the cinematic whole. This is also the case in cognitive film studies, to which I will mainly limit my treatment. One concept that most evidently needs clarification about what is meant by production design is *mise-en-scène*. Since the cognitive approach to film research has become mainstream, Bordwell, one of the leading cognitivists, has become regularly quoted. Bordwell and Thompson’s definition of *mise-en-scène*, published in the much-reprinted *Film Art: An Introduction*, reads as follows:

In French, *mise-en-scène* (pronounced “meez-ahn-sen”) means “putting into the scene,” and was first applied to the practice of directing plays. Film scholars, extending the term to film direction, use the term to signify the director’s control over what appears in the film frame. As you would expect from the term’s theatrical origins, *mise-en-scène* includes those aspects of film that overlap with the art of the theater: setting, lighting, costume, and the behavior of the figures. In controlling the *mise-en-scène*, the director stages the event for the camera. (Bordwell, Thompson [1979] 2001: 156)

According to Bordwell and Thompson, setting, costume and makeup, lighting, and staging are “the aspects of *mise-en-scène*” (Bordwell, Thompson [1979] 2001: 158–74). Thus, as a concept, *mise-en-scène* is tricky; e.g., the film sets are not part of the *mise-en-scène* in themselves but are an

implication of film directorial choice and control. As Martin (2014:14) has noted, this kind of notion of staging elements for the camera “does not include camera beyond the rather static notion of pictorial composition.”

Furthermore:

But, at least in fictional cinema, there is never (or very rarely) a discrete, purely theatrical level in the actual practice of filmmaking: everything that is designed, staged, lit, dressed, and so forth, is done with a particular vantage point, a particular angle – or rather, a concatenation of various perspectives and angles – in mind. (It is common practice, for example, for only so much of a set to be built as will be included within the camera’s purview.) (ibid.)

Style is consistently a concept related to *mise-en-scène*, which has even been understood as a synonym for the director’s style (e.g., Comolli [1965] 1986: 8). Bordwell himself (1985: 155) describes the stylistic system of film (1) as a counterpart to the formal system of the film, and (2) as a patterned and significant use of any film technique.² Finally, Bordwell (1985, 1997) eventually introduced more complex ideas of *mis-en-scène*. For example, his remarks about “staging in depth” formulate a step toward recognizing the meaning-making aspect of space and movement interaction and the role of bodily experience in it (Bordwell 1997: 169–271).

Perhaps the most intriguing aspect of *mise-en-scène* is its historical connection to the theoretical film writing of the 1950s and ’60s. Bazin ([1957] 1972) is the most prominent of these authors, but we can also name such as Godard ([1952] 1972), Rivette ([1954] 1985), Astruc ([1959] 1985),

and Sarris (1962). One of the threads of the extensive discussion was how the director, in his empowered vision, took control over the elements of profilmic reality: “If ever a film was the expression of the practice of *mise en scene* for its own sake, it is this. What is cinema, if not the play of actor and actress, of hero and set, of word and face, of hand and object?” (Rivette [1954] 1985: 135) Obviously, there were opinions for and against whether approaching the film-directing process through the style-driven association of *mise-en-scène* was “dangerous”:

In short, if you ask what characterizes an auteur, what makes a filmmaker an auteur in the strong sense of the term, you fall into a new trap: it’s his ‘style’, in other words the ‘*mise en scene*’, a notion as dangerous, risky, infinitely variable and impossible to pin down as auteur. *Mise en scene* means two things, one obvious – the directing process; the other mysterious – the result of that process. (Comolli et al. [1965] 1986: 205)

As this quote shows, *mise-en-scène* theorists were unwilling or unable to reveal what happened during the making of the film. This attitude gave rise to the tradition of academic writing in which the profilmic reality, whatever processes it consisted of, was left behind the mystical veil of *mise-en-scène* and subsequently at the feet of the auteur theory. In this sense, I aim to shed some light on the profilmic work phases and to consider how the production designers justify their choices as part of the preproduction and production crew.

SITUATED AUTHORSHIP

In Hollywood, where productions were generally more extensive than in Europe, a different way of thinking about filmmaking emerged, emphasizing hierarchical teamwork. In addition to the directors, a significant amount of creative responsibility was

2 Eventually, with the intertwining of CMT and EST, we could question the dichotomy of style versus form in production design research.



FIGURE 1. William Cameron Menzies sketches for the Atlanta fire sequence.
Image courtesy of Harry Ransom Center.

given to the film crew members, such as art directors and set designers. The enormous MGM investment gave the initial impetus for the development of *Gone With the Wind* (henceforth *GWTW*) getting into problems, and producer David O. Selznick had to do something to keep the production on track. That is how he ended up hiring William Cameron Menzies:

Selznick's plan was to have Menzies compose and sketch every shot in the movie prior to filming, giving it a bold visual style that hid the fact that multiple directors were employed in its making. ... The film won eight Academy Awards, including one for Lyle Wheeler for color art direction, but there was no category for what Menzies had done, and so a special award was created for "use of color for the enhancement of dramatic mood." On screen, there was similarly a special credit: "This production designed by William Cameron Menzies." (Curtis 2015: loc 199)

Considering how controlled the making of *GWTW* was and how many people were involved in creating its sceneries, Menzies' sketches show his personal artistic touch and significant relevance to the finished film. They were a series of successive perspectives and indicated the character movement and environment interaction, not just scenic structures, and in this way they related to the storytelling. For example, the cartoon-like sequence depicting the Atlanta fire (**Figure 1**) emphasizes the breathless rhythm of the images, the drastic variation of the camera angles, the intense dynamics of the escape situation with the horse-drawn carriage against the blazing red sky (HRCUOT 184 11). The filmmakers of the era understood the specificity of the new way to emphasize the interplay of scenery and cinematography:

Menzies has definite ideas about the visual side of a motion picture. He likes to compose with the camera frame, instead of inside it. In other words, Menzies' sketches reach to the borders of the frame instead of falling within the frame. Menzies does not believe in composition for its own sake. There has to be a reason for every shot and every shot has to contribute to the story that is being told. (Goodman 1945: 82)

Suppose we invest in how the filmmaker's bodily experience might manifest in the process, which points to the embodiment of the filmmaker. Tikka (2022) has suggested that the embodied experiences relate to both filmmakers and film viewers, thus giving a basis to approach the production design process from the point of *enactive authorship*. In this model, the author has a direct simulative relationship with the protagonist's experience in the film. However, it is also the question that "the author simulates the viewer (experience) who further simulates the experience of the protagonist in the film. This chain of relations is described as enactive second-order simulation of the viewer experience." Since the concept of enaction would need a broader discussion, I use the term *situated authorship* for this article, referring to the embodied situatedness of a production designer as an author.

In this sense, Menzies' sketches are revealing. They visualize how Menzies positioned himself to look at the scenic constructions on a shooting location. Here, it was not a question of his own embodied situatedness in relation to the scenery but also the situatedness of the imaginary camera and seeing through it. Also, Menzies' method connects with Ihde's (2009) embodiment relationship, where a perception experienced through technology synthesizes with the body in a particular way: "Embodiment is, in practice, how we engage our environment or 'world,' and while we may not often explicitly attend to

it, many of these actions incorporate the use of artifacts or technologies” (ibid.: 53). Consequently, in the case of the production design process, it seems that anticipating the act of seeing through a camera has a dual quality of seeing as the camera or even the cinematographer and seeing as the eventual film viewer.

Bazin (1947), as an emerging *mise-en-scène* theorist, wrote early on an article “Le décor est un acteur.” Here, he sees the role of staging as being to promote drama, which loses its credibility without an environment that verifies it. In this context, the poetic realism of the scenery, a transposed realism, is more emotion-evoking than truthful realism; however, in the stylistic sense, the design should indicate nothing unnecessary regarding narrative. The interaction between a person and his environment is always in the center, down to the smallest detail. Every environmental element is there for meaningful interplay with the actor. In this sense, Bazin’s notion of scenery implies phenomenological vibes, echoing sensibly like Merleau-Ponty (e.g., Bezerra 2017). However, the essence of the camera movement in relation to the setting remains for Bazin *capturing rather than participating*.³ Thus, it differs, for example, from Sobchack’s (1992, 2016) phenomenological notion of the embodiment nature of the camera action:

This description of the moving image as such is meant to emphasize the gestalt’s two co-present and conjoined elements, neither of which precedes or antecedes the other onscreen, even as, in perception, each can reversibly become a figure or ground for the other. Moreover, in its ongoing, directed, and perspectival visual activity of seeing “something” that takes on mean-

ing by being chosen to be seen that particular way, the viewing view/viewed view also appears, however latently, as intentional, and, in its visual activity, implicates an unseen but “embodied subject” of some kind. (Sobchack 2016: 69)

SIMULATING VIEWER’S VIEW

Damasio (2000: 202) has suggested that there exist similarities between the functions of our cognitive processes in general and the film’s way of creating stories:

Movies are the closest external representation of the prevailing storytelling that goes on in our minds. What goes on within each shot, the different framing of a subject that the movement of the camera can accomplish, what goes on in the transition of shots achieved by editing, and what goes on in the narrative constructed by a particular juxtaposition of shots is comparable in some respects to what is going on in the mind, thanks to the machinery in charge of making visual and auditory images, and to devices such as the many levels of attention and working memory.

Indeed, suppose our thought processes operate like a movie. In that case, they also can be seen offering the cinema author the avenue to actualize in her mind how the eventual story unfolds in the flow of images as a kind of simulated movie-in-the-mind. Next, I will discuss the notion of situated authorship in the context of the collective previsualization process.

Another production designer who worked under the Universal Studios and MGM umbrella in the 1950s and ’60s was Robert Boyle, whose collaboration with Hitchcock deserves attention. Hitchcock’s signatures include (but are not limited to) compelling visuals combined with calculated

3 Bazin echoes these kinds of ideas in the *What Is Cinema?* chapters titled “Behind the Décor” and “The Screen and the Realism of Space” (Bazin [1967] 2005: 102–11). In “Le décor,” Bazin approaches film stylization more sensitively than in his later writings, where stylization appears theatrical and lacks naturalness.

tension. Boyle describes Hitchcock as open to collaboration with designers partially because he preferred working on sound-stage rather than on location and used a considerable amount of traditional effects technologies of the predigital era (SFX) like matte paintings, forced perspectives, and rear projections: all these approaches need certain preciseness in your working methods (LoBrutto 1992: 7–12).

For example, Boyle's preliminary sketches (MHL AMPAS 345) for the Hitchcock film *The Birds* (1963) are considered iconic in the history of production design in the way they approach the scene dynamics and atmospheres. Counts and Rubin (1980) describe Hitchcock and Boyle's way of breaking down the sequences based on the script as follows: "The director would verbalize how he envisioned the scene – shot for shot – and Boyle would make quick charcoal sketches, or 'scribbles,' as he termed them. Hitchcock, himself an artist, would occasionally take his own piece of paper and create his own 'scribbles' if Boyle wasn't quite drawing what Hitchcock wanted." Boyle developed the idea of the "key sketch," a detailed illustration that sets the general mood of the scene and establishes the lighting, time of day, and color. In addition, Boyle and his art department also utilized sketches for "form" and "angle," which concerned image size and camera placement (ibid.). Here, the idea of designing for and from a positioned perspective was present in the process.

Examples of Boyle's preliminary design sketches (**Figure 2**) are illustrative, and they capture the oppressive atmosphere of the scene, the landscape posing a threat. Most obvious they are when depicting birds: individual birds attacking, birds gathering on design structures. It is not just a question of describing the scenic environments; it is also about visualizing the movement of all these creatures that inhabit this world of scenery. Generally, Boyle, as a designer, leaned on the idea that learning to "think like a director" and to create identification with "the human action onscreen" was more important than "flashier aspects of making

fine looking set" (Raim 2020: 4:40–8:20). He was very involved in location scouting, focusing on how the shooting locations would turn out as seen through the camera and whether the landscape layout would enhance the scene's tension concerning character action (ibid.: 31:23–34:03).

In *The Birds*, Boyle's methods expanded to include more precise ways of preplanning by bringing storyboard artist Harold Michaelson into the art department. Boyle then provided his sketches to Michaelson, who depended on them while working on key scenes in the film – such as gathering birds in front of the church for Jungle Jim (a particular playground climber) or the explosion in front of the gas station – and drew hundreds of continuity (angle) sketches (Counts, Rubin 1980) which essentially depict character action and camera movement on a frame-to-frame basis. Eventually, Michaelson's continuity sketches needed to be approved by Hitchcock, who seemed to have utilized them straightforwardly in the abovementioned scenes (ibid.; Raim 2015: 36:08–39:23; Raim 2020: 17:58–20:17).

Before the era of digital FX, *The Birds* was a challenging production covering scenes with elaborate action dynamics. Partly because of that, it also required reassessments in the working methods of the art department. The production designer's role was mainly in managing the visionary whole. All happened under his supervision: the choice of locations, the realization of studio constructions, their integration with the bird FX, and other effects. Thus, partly due to production requirements and partly due to artistic ambition, a specific film design method was born (Counts, Rubin 1980; LoBrutto 1992: 7–12). The whole preproduction process involving this level of frame-to-frame precision required a remarkable ability to visualize (or simulate, in Tikka's terms) the finished film in advance regarding how viewers would experience it. Boyle's method is also an inclination of how the designer can make his embodied view concretely visible (via sketches) during preproduction and how



FIGURE 2. Robert Boyle sketches for The Birds.
Image courtesy of Margaret Herring Library.

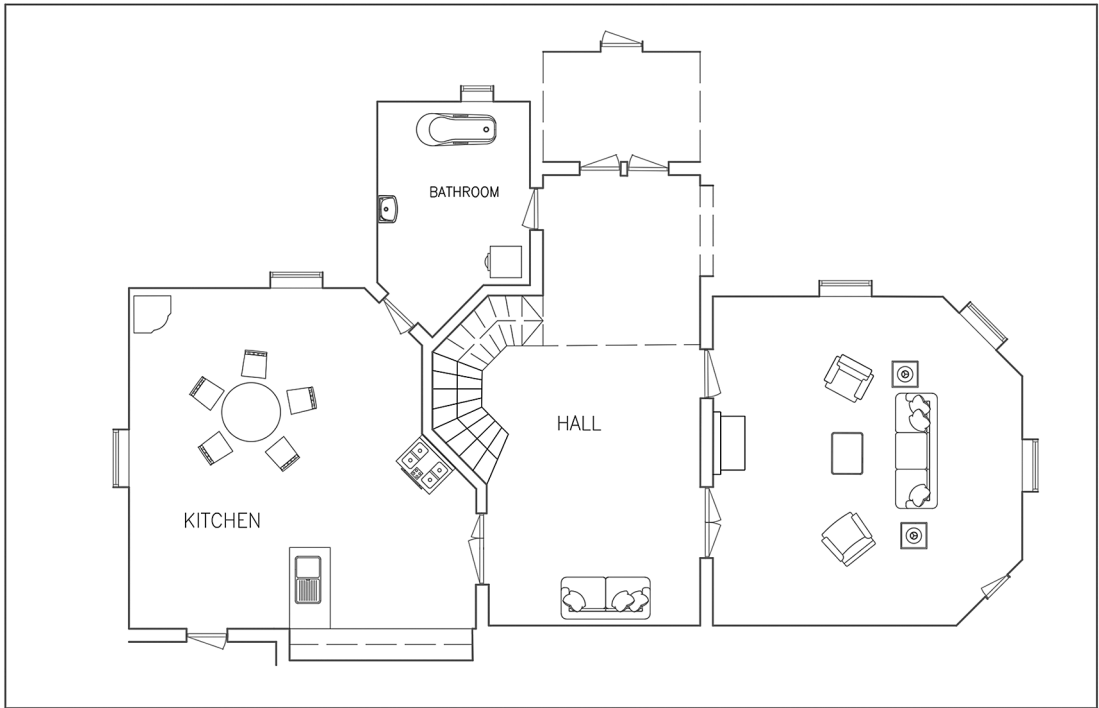


FIGURE 3. The exterior of the Hayflower and Quiltshoe set, the girls' home.
A still from the movie.

FIGURE 4. The ground plan of the first floor of the girls' home.

that view is further developed collectively by the other art department members as a shared experience.

The process of designing *The Birds* took the collective attempt to simulate what viewers would see pretty far. Thus, the sketches and storyboards can contribute while approaching methodologically situated authorship related to production design. However, practices vary; there are productions where the art department comprises only a few people and productions with hundreds of employees. Designers may also have different ideas on how to consider the demands of cinematography. Often, there is no previsualization evidence to track down the process of situated authorship, meaning there indeed exists a question of how to approach these innate profilmic processes.

DYNAMIC STAGING SCENARIOS

I worked as a production designer for a children's film, *Hayflower and Quiltshoe* (Rastimo 2002). The film was about two siblings (girls) under school age and their slightly clueless parents. We were looking for a bohemian and unkempt filming location for the children's home. We found this small and fairytale-like two-story villa with a tower from the beginning of the 20th century (**Figure 3**). The plan was to stage two floors of the interior in a studio (studio constructions are often one-story, and the impression of a two-story is created through the choices of cinematography and some partial two-story structures). The eventual studio setting was almost three times the size of the exterior.

As shown in the ground plan (**Figure 4**), at the architectural center of the studio construction is a large hall with a circular staircase (half of a hexagon). It is almost a spread spiral staircase, and standing in the middle of the hallway, you can always see when a person walks down the stairs. The structure implies a straightforward staging scenario, where placing the camera in the center of the space can continuously pan a person's descent from top to bottom (or vice versa). The set arrangement considers the

plotting of events in the set and the space required by the camera equipment without having to move wall structures out of their way.

The question was mainly about the decisions made based on the events described in the script. It included anticipating how the people on the set moved around it and how the camera was positioned in relation to the action and setting. As I have mentioned earlier, production design involves foreseeing motion scenarios and simulating the action in your mind. Again, any filming location, studio construction, or existing environment, inside or outside, ultimately involves planning where the camera will be placed, what it will see, and how the movement of the camera and characters can progress in relation to the set. Production designers use a variety of strategies to promote these kinds of choreographies of the profilmic stage. I like to talk about *dynamic staging scenarios* to emphasize that the film environments are designed for action, not only the action characters but also the physical presence of moving cameras on set.

This planning process does not have to be perfect or all-encompassing or to define all the solutions that will be made in the shooting situation – I do not mean it that way. In my experience, it is like a collection of fragment-like clips you play in your head, based on which you intuitively make concrete design solutions. These solutions are like offers or invitations, giving opportunities; the action is blocked or aided, etc. As such, this process connects with Gibson's theory of affordances, where affordance is a characteristic of the environment perceivable to the organism: "what it offers the animal, what it provides or furnishes, either for good or ill" (Gibson, 1979: 127). In terms of the embodiment aspect, there are situations where it may seem necessary to emphasize the characters' experience – but usually this does not overwrite the anticipation of the collective vision of the crew on what kind of things are wished to be emphasized or brought to the fore. In the process, you need to balance your designer's vision with the director's vision.

According to my memory, I did not discuss the stair solution mentioned above with the director; it was a small solution in its context, and we had many other matters considered more critical to deal with at the time. However, the staircase was used as I had anticipated in the eventual film. Although the solution was not verbally referred to during the preproduction, it was, in this sense, successful. The camera managed to record the child's continuous rush down the stairs. The steps of a child running down the stairs gave rise to a continuous rhythmic tap-tap-etc., instead of the question about stairs with a platform: what would the pause between the tap-taps have sounded like? Less dynamic. Thematically, the film was about empowering children in their relationships with adults. The scenario of the movement enabled the child actor to enter the scene powerfully, giving it an impetus, as it were.

IMAGE SCHEMAS STRUCTURE MEANINGS

Working on *Hayflower and Quiltshoe* was, in my mind, largely intuitive. Of course, many goals were conscious, but, as I see it, making every single decision in staging only happens partially analytically. Afterward, when I defended my doctorate and read a lot about metaphors, I could see the conventions of production design as including certain types of goal-oriented, repetitive working patterns (unconscious or not), which aim to emphasize cinematic interpretation (the narrative dimension) through dynamic staging scenarios. For example, I would have had the opportunity to copy the structural architecture of the actual house. However, I did not, and the final structure was a mixture of different functional properties, where both the characters' actions and the camera's movement were considered. I can speculatively identify these choices – which highlight the opportunities for interaction of movement and space – as part of the meaning-making process along the lines Johnson and Lakoff described in CMT.

The original vision I had in my mind of the staircase was spatial, in that sense,

even acoustic with the idea of the sound someone makes while running upstairs or downstairs, and I was not that interested in how the structure itself looked (it did not end up being the most beautiful staircase in the world).⁴ As such, a simple spatial image (or spatial primitive) of a stair can be connected to image schemas through the idea of what kind of activity can be associated with the stairs. Johnson's ([1987] 2013) original observations about image schemas included that they could indicate, e.g., (1) spatial motion or (2) force. The image schemas included in the spatial motion schemas are, for instance, UP-DOWN and SOURCE-PATH-GOAL (ibid.; Lakoff [1987] 2013). As such, these are the most evident image schemas related to the movement scenarios enabled by the *Hayflower and Quiltshoe* staging: someone can run via stairs from upstairs to downstairs.

Image schemas in the staging generate meaningful associations in themselves. Johnson ([1987] 2013) has discussed the image schema FORCE, which concerning the action is, for example, uninhibited or inhibited, thus leading to the articulation of FORCE as, e.g., ATTRACTION, ENABLEMENT, and BLOCKAGE. Hurtienne et al. (2015) state that image schemas can also be “derived from prevalent object characteristics such as big-small, bright-dark, heavy-light” and therefore use a comprehensive list of image schemas containing the idea of ATTRIBUTE group of image schemas. Slightly contrasting, Mandler and Cánovas (2014) see image schemas as representing “simple spatial elements using the primitives” such as PATH-TO-THING and THING-INTO-CONTAINER while they use the notion of schematic integration in the case of conceptual representation as including a nonspatial element (such as forces but also, e.g., color) “by projecting feelings or non-spatial perceptions to blends structured by image schemas” (ibid.: 526). For example, my simple stairs scenario enabled the child (actor) to exert FORCE (human

4

Such an acoustic space schema can serve as a starting point for a multimodal metaphor. See, e.g., Forceville (2016, 2017).



FIGURE 5. The interior scene in the kitchen of the girls' home.
Still from the movie.

FIGURE 6. The interior scene in the kitchen of the ladies' home.
Still from the movie.

experience of a body as a source of force): her action was naturally unleashed. The child, however, is small. She does not exemplify the idea of SIZE-IS-POWER, a primary metaphor defined by Grady (1997, 2005). Sometimes, you can reverse these basic correlations and create riveting storytelling, avoiding the most typical associations like “physical size typically correlates with physical strength, and the victor in a fight is typically on top” (Lakoff and Johnson [1980] 2008; see also Schubert et al. 2009; Tang et al. 2015; Yu et al. 2017). Thus, power can be represented as verticality and a size difference. The child actor running relentlessly down the stairs, deliberately stomping her feet, took on comical features: being small and powerful is already a story.

As discussed earlier, the children in this film represent, in some sense, greater rationality than the adults. Adults mess it up; they do not focus when they should be organized. At some point in preproduction, I placed the girls’ room in my imagination in the tower of the house used as an exterior, where they were almost as if above everything and unreachable by others. Accordingly, the structural features of the tower were repeated in the studio staging of the girls’ room (window, ceiling, etc.). For comparison, in the television series *Stranger Things* (Duffer, Duffer 2016), where the story mainly takes place from the children’s point of view, the central gathering place for them is a basement-like space, which seems a relevant solution considering that the story is about phenomena below the surface. Placement of the children’s room up high was not a very literal solution but part of a complex network of meanings into which the tower and the staircase are integrated. Cian (2015) has suggested that already in childhood we have formed a conceptual connection between rationality and being positioned spatially high. This arrangement suggests the notion of RATIONAL-IS-UP (Lakoff, Johnson [1980] 2008) or BEING-IN-CONTROL-IS-BEING-ABOVE (Grady 1997: 290). Furthermore, it is also a question about freedom, being by the limitless sky.

In general, I believe that the entire staging utilizes several overlapping image schemes simultaneously, which place the cinematic environments in an imaginative relationship with each other and create a comprehensive conceptual spatial structure that conveys the film’s themes metaphorically. The film sets are inherently concrete in their enactment; they take place in natural spaces, depending on the logistics related to the filming phase. However, the mental structures in the filmmaker’s mind are instead an orientation toward the finished film and an expression of complex schematic organization. Individual solutions like my stairs are integrated into larger structures, through which increasingly elaborate metaphors can be expressed. It would be interesting, for example, to consider how the associations related to the cinematic environment can change their nature as the film progresses. More research is needed here, and in this regard Fauconnier (1994), Fauconnier and Turner (2002), and Grady et al. (1999) could show the direction, especially with their thoughts on mental states, blending, and creation of more complex metaphor patterns.

EMOTION IS LOCATION

My second practical example from *Hayflower and Guiltshoe* involves two kitchens: the kitchen of the girl’s home (**Figure 5**) and the kitchen of the villa, where the free-spirited and imaginative ladies live (**Figure 6**). Both are visibly very yellow: the first one slightly peachy, the second pure yellow. Jonauskaite et al. (2019: 2) have reported on an ongoing study investigating emotional associations with colors in different countries. Unsurprisingly, the probability of yellow happiness associations is the highest in not-so-sunny Finland! So, the original idea that both kitchens are yellow was born from the connotation that yellow is a happy color; a kitchen is a happy place, bringing family members together in a nurturing sense. However, as Jonauskaite et al.’s (ibid.) research suggests, specific associations may be related to geographic location; in countries where

it rains a lot, and the sky is gray, yellow is a happy color.

Production design is working with bits and pieces, calculating meters, and selecting color swatches. Since the set is broken down into parts in your mind, it is possible to look at individual solutions and their reasons. In this way, the kitchen, painted yellow, is a production design way of saying that the kitchen is a happy place. However, HAPPY-IS-YELLOW is a different metaphor from, e.g., GOOD-IS-LIGHT, which was used as an example in the visual analysis of the film by Forceville and Reckens (2013; see also Grady 1997). Color metaphors, in general, cannot be verified fully via linguistic examples. However, yellow reads in the color chart's lighter range and thus can be understood in the LIGHT/DARK image schema radar. There still seems to be some cultural variation with linguistic examples of color-associated metaphors: e.g., "I feel blue" is an expression that does not make any sense in Finnish. As Löffler (2017: 64) writes, "the origins of color associations can be categorized in innate, sensorimotor, cultural and expertise knowledge." In general, Loeffler acknowledges three types of metaphoric patterns utilizing color associations, of which HAPPY-IS-YELLOW falls into the category of *color metaphors*, where "the physical source domain color is mapped to another, more abstract, target domain, e.g., sad is blue, as expressed in I feel blue." There is also a specific association of yellow as a warm color; thus, the primary metaphor AFFECTION-IS-WARMTH also bears relevance in this case (ibid.; Grady 1997: 27–9).

Strong color expression is typical of children's films, but also, in a subtle sense, color is experienced as a meaningful design accomplice. Color plays together with light by generating atmospheres. In the digital era, various post-processing methods can significantly manipulate the film's color expression.

Let us look again at the idea of HAPPY-PLACE-IS-YELLOW-KITCHEN. Lakoff and Johnson ([1980] 2008) already discussed the conceptual metaphor EMOTIONS-

ARE-LOCATIONS at length in *Metaphors We Live By*. Kövecses ([2000] 2003) took this thinking forward by identifying the event structure of emotions (STATES-ARE-LOCATIONS, CHANGES-ARE-MOVEMENT). In cognitive film research, Fahlenbrach (2017) has studied emotion metaphors in film, e.g., by breaking down examples of animations. In her study, she has identified metaphors expressing depression: DEPRESSION-IS-BEING-ENCLOSED-BY-RAIN and DEPRESSION-IS-A-DARK-PLACE (ibid.: 102). From a practice point of view, filmmakers have embraced similar models of associative connections.⁵ Consequently, the yellow kitchen comes to present (at least in Finland) similar associations to those Kövecses has identified in a linguistic context: HAPPINESS-IS-A-PLEASURABLE-PHYSICAL-SENSATION (a nurturing aspect of being in the kitchen).

However, there are differences between these two kitchens: the children's home is more ordinary, while the ladies' home, for me, was like "a flower that has burst into full bloom," stylistically meaning lushness and grandeur manifested in the figurative expression of the scenery. The same thinking was repeated in the home gardens: in the yard of the children's homes we planted a crop of delicate wildflowers, while in the ladies' garden we planted hundreds of large-flowered roses. Although the overall contrast was not meant to be too obvious, it was achieved. One reviewer interestingly described the ladies as living "in the depths of a Pippi-like fairy tale world, unreachable by reality" (Ylänen 2002). As such, the visual gestalt in form and color has a metonymic dimension here, as the ladies' home represents the ladies themselves through its properties. Again, the connection of the kitchen is made not

5 For example, when I was teaching at Aalto University (1998–2008), the production design entrance exam included tasks such as expressing emotional states through spatio-visual means. You could be asked to paint "a sad landscape"; some sample material, e.g., from a novel, could have been attached. The ability to establish associative connections between verbal expressions and spatial elements was seen as essential for the production designer.

only to HAPPY-IS-YELLOW but also to this creative sense of joyfulness of the ladies themselves, or simply joy.

As Kövecses ([2000] 2003: 61) suggests, “because in the EVENT STRUCTURE metaphor CAUSES ARE FORCES, it is natural to conceptualize emotions as forces that bring about certain responses, or effects.” According to Arnheim (1988: 585), “the most important development ... in the psychological study of artistic expression has been the realization that sensory experience endows stationary objects with dynamic force.” In Arnheim’s vision, the objects themselves do not need to move to be visually dynamic. He describes perceptual forces as a tension experienced psychologically in diverse ways in a picture by anyone who looks at it (Arnheim [1954] 1974: 11–41; see also Johnson [1987] 2008). The film enables movement, but, following Arnheim, I contemplate whether the form can create meaningful associations and, if so, how they could be analyzed. The tensions of the form used in *Hayflower and Quilt-shoe* were meant to create such notions as VIGOROUSNESS-IS-LIFEFORCE.

CONCLUSIONS

In this article, I have deemed it essential to reassess the *mise-en-scène*. As a concept, *mise-en-scène* does not describe modern filmmaking practices well. Especially when we are moving from utilizing natural spaces in filmmaking to digital illusions – where character or camera movement is impossible – it is critical to distinguish the fundamentality of embodied experience in meaning-making, even if it appears purely in a fully simulated realm. I see modern production design as involving conventions that make the notion of situated authorship visible, eventually affording cinematic storytelling more dynamically schemed event spaces than the traditional concept of *mise-en-scène* implies.

According to CMT and EST, the spatialization of cinematic events is a situated bodily process involving meaning-making. In production design, image schemas structure the imaginary spatial experience of the cinematic environment – considered from both the author’s view and the eventual viewer’s view, both of which, in turn, relate to the simulation of character action.

I have presented some elementary examples of how metaphors emerge via production design choices. Furthermore, I have characterized the essential aims of production design as follows:

1. The spatialization process can be broken down into dynamic staging scenarios.
2. These scenarios utilize the dimensionality of image schemas.
3. Meanings are awakened when actors/objects and the camera move.
4. Through action, dynamic staging scenarios are connected to a network of meanings.

Finally, the film design also creates a temporal continuum; it takes place in sequences as the film progresses. Through this virtual space experience, staged scenarios become part of the network of meanings, where original meanings can lose relevance, and completely new parallels can arise. The next step in production design research could be to delve into this problem.

DISCLAIMER

If not otherwise stated, all images are reproduced under the terms of fair use for academic purposes. The images are not covered by the Creative Commons Attribution 4.0 International Licence.

REFERENCES

- Affron, Charles; Affron, Mirella, J. 1995. *Sets in Motion: Art Direction and Film Narrative*. New Brunswick, NJ: Rutgers University Press.
- Arnheim, Rudolf. [1954] 1974. *Art and Visual Perception: A Psychology of the Creative Eye*. Los Angeles: University of California Press.
- Arnheim, Rudolf. 1988. "Visual Dynamics." – *American Scientist* 6, 585–91.
- Astruc, Alexandre. [1959] 1985. "What Is Mise-en-scène?" – Jim Hillier (ed.), *Cahiers du Cinéma: The 1950s: Neo-Realism, Hollywood, New Wave*. Cambridge, MA: Harvard University Press, 266–8.
- Barnwell, Jane. 2017a. "Spies at Home: How the design of the Domestic Interior in 'Tinker Tailor Soldier, Spy' Conveys Character and Narrative." – *Kosmorama*, 16 June.
- Barnwell, Jane. 2017b. *Production Design for Screen: Visual Storytelling in Film and Television*. London: Bloomsbury.
- Barnwell, Jane. 2018. *The Designer's Story: Filmmaking from the Perspective of the Production Designer*. PhD dissertation, University of Brighton.
- Bazin, André. 1947. "Le Décor est un Acteur." – *Cineclub* 1, 4–5.
- Bazin, André. [1957] 1972. "De la politique des auteurs." – André Bazin et al. (eds.), *La Politique des auteurs*. Paris: Editions Champ Libre, 99–117.
- Bazin, André. [1967] 2005. *What Is Cinema? Vol. 1*. Ed. Hugh Gray. Berkeley: University of California Press.
- Bergman, Ingmar. (dir.) 1983. *Fanny and Alexander*. Cinematograph AB; Svenska Filminstitutet; Gaumont. 188 minutes (film); 312 minutes (TV series). Blu Ray.
- Bezerra, Julio. 2017. "Bazin and Merleau-Ponty: Film and Its Ontological Bet." – *Journal of Literature and Art Studies* 7, 7, 899–908. <https://doi.org/10.17265/2159-5836/2017.07.007>
- Bordwell, David. 1985. "Widescreen Aesthetics and Mise en Scene Criticism." – *Velvet Light Trap* 21, 18–25.
- Bordwell, David. 1997. *On the History of Film Style*. London: Harvard University Press.
- Bordwell, David; Thompson, Kristin. [1979] 2001. *Film Art: An Introduction*. New York: McGraw-Hill.
- Cian, Luca. 2017. "Verticality and Conceptual Metaphors: A Systematic Review." – *Journal of the Association for Consumer Research* 4, 2, 444–59.
- Coëgnarts, Maarten. 2017. "Cinema and the Embodied Mind: Metaphor and Simulation in Understanding Meaning in Films." – *Palgrave Communications* 3, n.pag.
- Coëgnarts, Maarten. 2019. *Film as Embodied Art: Bodily Meaning in the Cinema of Stanley Kubrick*. Academic Studies Press. <https://www.perlego.com/book/1320621/film-as-embodied-art-bodily-meaning-in-the-cinema-of-stanley-kubrick-pdf> (15 May 2023).
- Coëgnarts, Maarten; Kravanja, Peter. 2012a. "From Thought to Modality: A Theoretical Framework for Analysing Structural-Conceptual Metaphor and Image Metaphor in Film." – *Image [&] Narrative* 13, 1, 96–113.
- Coëgnarts, Maarten; Kravanja, Peter. 2012b. "Embodied Visual Meaning: Image Schemas in Film." – *Projections* 6, 2, 84–101.
- Coëgnarts, Maarten; Kravanja, Peter. 2014. "A Study in Cinematic Subjectivity: Metaphors of Perception in Film." – *Metaphor and the Social World*, 4, 2, 149–73.
- Coëgnarts, Maarten; Kravanja, Peter. 2016a. "The Eyes for Mind in Cinema: A Metaphorical Study of the Viewer's Experience." – Kathrin Fahlenbrach (ed.), *Embodied Metaphors in Film, Television, and Video Games*. London: Routledge, 129–44.
- Coëgnarts, Maarten; Kravanja, Peter. 2016b. "From Language to Film Style: Reassessing the Role of Conceptual Metaphor in Cognitive Film Studies." – Lars C. Grabbe, Patrick Rupert-Kruse, Norbert M. Schmitz (eds.), *Image Embodiment: New Perspectives of the Sensory Turn*. Darmstadt: BÜchner, 108–34.
- Comolli, Jean-Louis; Fieschi, Jean-André; Guegan, Gerard; Mardore, Michel; Ollier, Claude; Techine, Andre. [1965] 1986. "Twenty Years On: A Discussion about American Cinema and the Politique des Auteurs." – Jim Hillier (ed.), *Cahiers du Cinéma 1960–1968: New Wave, New Cinema, Reevaluating Hollywood*. Cambridge, MA: Harvard University Press, 187–96.
- Counts, Kyle B.; Rubin, Steve. 1980. "The Making of Alfred Hitchcock's The Birds." – *Cinemafantastique* 10, 2, 15–35.
- Curtis, James. 2015. *William Cameron Menzies*. New York: Pantheon Books. Kindle Edition.
- Damasio, Antonio. 2000. *The Feeling of What Happens: Body and Emotion in the Making of Consciousness*. Boston, MA: Mariner Books. Kindle Edition.
- D'Arcy, Geraint. 2018. *Critical Approaches to TV and Film Set Design*. New York: Taylor & Francis. <https://www.perlego.com/book/1513523/critical-approaches-to-tv-and-film-set-design-pdf> (9 November 2023).
- Duffer, Matt; Duffer Ross. (dirs.) 2016. *Stranger Things*. Season 1. 21 Laps Entertainment, Monkey Massacre Productions. Netflix.
- Ettegui, Peter. 1999. *Production Design and Art Direction*. Hong Kong: Focal Press.
- Fauconnier, Gilles. 1994. *Mental Spaces*. New York: Cambridge University Press.
- Fauconnier, Gilles; Turner, Mark. 2002. *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities*. New York: Basic Books.
- Fahlenbrach, Kathrin. 2016. "Audiovisual Metaphors as Embodied Narratives in Moving Images." – Kathrin Fahlenbrach (ed.), *Embodied Metaphors in Film, Television, and Video Games*. London: Routledge, 33–50.
- Fahlenbrach, Kathrin. 2017. "Audiovisual Metaphors and Metonymies of Emotions and Depression in Moving Images." – Francesca Ervas, Elisabetta Gola, Maria Grazia Rossi (eds.), *Metaphor in Communication, Science and Education*. Berlin: De Gruyter Mouton, 95–117.
- Fleming, Victor. (dir.) 1939. *Gone With the Wind*. Selznick International Pictures; Metro-Goldwyn-Mayer. 221 minutes. Blu-Ray.
- Forceville, Charles. 2016. "Pictorial and Multimodal Metaphor." – Nina-Maria Klug, Hartmund Stöckl (eds.), *Handbuch Sprache im Multimodalen Kontext*. Berlin: Mouton de Gruyter, 241–60.
- Forceville, Charles. 2017. "Visual and Multimodal Metaphor in Advertising: Cultural Perspectives." – *Styles of Communication* 9, 2, 26–41.
- Forceville, Charles; Paling, Sissy. 2021. "The Metaphorical Representation of DEPRESSION in Short, Wordless Animation Films." – *Visual Communication Journal* 20, 1, 100–120.
- Forceville, Charles; Renckens, Thijs. 2013. "The GOOD IS LIGHT and BAD IS DARKNESS Metaphors in Feature Films." – *Metaphor and the Social World* 3, 2, 160–79.
- Gallese, Vittorio. 2007. "Before and Below 'Theory of Mind': Embodied Simulation and the Neural Correlates of Social Cognition." – *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences*, 362, 1480: 659–69.

- Gallese, Vittorio; Guerra Michele. 2012. "Embodying Movies: Embodied Simulation and Film Studies." – *Journal of Philosophy and the Moving Image* 3, 183–210.
- Gallese, Vittorio; Guerra Michele. [2015] 2020. *The Empathic Screen: Cinema and Neuroscience*. New York: Oxford University Press.
- Gibbs, Raymond W.; Colston, Herbert L. 1995. "The Cognitive Psychological Reality of Image Schemas and Their Transformations." – *Cognitive Linguistics* 6, 347–78.
- Gibson, James J. 1979. *The Ecological Approach to Visual Perception*. Boston, MA: Houghton Mifflin.
- Godard, Jean-Luc. [1952] 1972. "Strangers on a Train." – Jean Narboni, Tom Milne (eds.), *Godard on Godard*. New York: Viking Press, 22–6.
- Goodman, Ezra. 1945. "Production Designing." – *American Cinematographer*, March, 81–2, 100.
- Grady, Joseph. 1997. *Foundations of Meaning: Primary Metaphors and Primary Scenes*. PhD dissertation, University of California at Berkeley.
- Grady, Joseph. 2005. "Primary Metaphors as Inputs to Conceptual Integration." – *Journal of Pragmatics* 37, 10, 1595–614.
- Grady, Joseph; Oakley, Todd; Coulson, Seana. 1999. "Blending and Metaphor." – Raymond W. Gibbs, Gerard J. Steen (eds.), *Metaphors in Cognitive Linguistics*. Amsterdam: John Benjamins, 101–24.
- Halligan, Fionnuala. 2012. *FilmCraft: Production Design*. East Essex: Ilex. Kindle.
- Harry Ransom Center, University of Texas. HRCUOT 184 11. David. O Selznick Collection Production files 1939–1942, *Gone With the Wind* Fire Sequence.
- Heath, Stephen. 1976. "Narrative Space." – *Screen* 17, 4, 68–112.
- Hitchcock, Alfred. (dir.) 1963. *The Birds*. Universal International Studios. 119 minutes. Blu-Ray.
- Hurtienne, Jörn; Klöckner, Kerstin; Diefenbach, Sarah; Nass, Claudia; Maier, Andreas. 2015. "Designing with Image Schemas: Resolving the Tension Between Innovation, Inclusion and Intuitive Use." – *Interacting with Computers* 27, 3, 235–55.
- Kachka, Boris. 2017. "The Visionaries Behind the Memorable Worlds of Film." – *New York Times*, 30 September.
- Kövecses, Zoltán. [2000] 2003. *Metaphor and Emotion: Language, Culture, and Body in Human Feeling*. Cambridge: Cambridge University Press.
- Kövecses, Zoltán. 2010. *Metaphor: A Practical Introduction*. 2nd ed. Oxford: Oxford University Press.
- Kövecses, Zoltán. 2015. "Levels of Metaphor." – *Cognitive Linguistics* 28, 2, 321–47.
- Ihde, Don. 2009. *Postphenomenology and Technoscience*. Albany: State of University of New York Press.
- Israel, Robert. 1992. *Advanced Problems Theatre Design*. Lecture 243C, School of Theater Film and Television, UCLA, Los Angeles, 10 March.
- Johnson, Mark. [1987] 2013. *The Body in the Mind*. Chicago, IL: University of Chicago Press.
- Jonauskaitė, Domicela; Abdel-Khalek, Ahmed M.; Abu-Akel, Ahmad; Al-Rasheed, Abdulrahman Saud; Antonietti, Jean-Philippe; Åsgerisson, Árni Gunnar; Atitsoğbe, Kokou Amenyona; Barma, Marodégueba; Barratt, Daniel; Bogushevskaya, Victoria; Meziane, Maliha Khadidja Bouayed; Chamseddine, Amer, Charernboon, Thammanard; Chkonia, Eka; Ciobanu, Teofil; Corona, Violeta; Creed, Allison; Dael, Nele; Daouk, Hassan; Dimitrova, Nevena; Doorenbos, Cornelis B.; Fomins, Sergejs; Fonseca-Pedrero, Eduardo; Gaspar, Augusta; Gizdic, Alena; Grier, Yulia A.; Grimshaw, Gina M.; Hasan, Aya Ahmed; Havelka, Jelena; Hirnstein, Marco; Karlsson, Bodil S.A.; Katembu, Stephen; Kim, Jejoong; Konstantinou, Nikos; Laurent, Eric; Lindeman, Marjaana; Manav, Banu; Marquardt, Lynn; Mefoh, Philip; Mroczko-Wąsowicz, Aleksandra; Mutandwa, Phillip; Ngabolo, Georgette; Oberfeld, Daniel; Papadatou-Pastou, Marietta; Perchtold, Corinna M.; Pérez-Albéniz, Alicia; Pouyan, Niloufar; Soron, Tanjir Rashid; Roinishvili, Maya; Romanyuk, Lyudmyla; Montejo, Alejandro Salgado; Sultanova, Aygun; Tau, Ramiro; Uusküla, Mari; Vainio, Suvi; Vargas-Soto, Veronica; Volkan, Eliz; Wąsowicz, Grażyna; Zdravković, Suncica; Zhang, Meng; Mohr, Christine. 2019. "The Sun is No Fun Without Rain: Physical Environments Affect How We Feel About Yellow Across 55 Countries." – *Journal of Environmental Psychology*, 66, 101350.
- Lakoff, George. [1987] 2008. *Women, Fire, and Dangerous Things*. Chicago, IL: University of Chicago Press. <https://www.perlego.com/book/1842619/women-fire-and-dangerous-things-what-categories-reveal-about-the-mind-pdf> (7 May 2023).
- Lakoff, George. 1993. "The Contemporary Theory of Metaphor." – Ortony, Andrew (ed.), *Metaphor and Thought*. Cambridge MA: Cambridge University Press, 202–51.
- Lakoff, George; Johnson, Mark. [1980] 2008. *Metaphors We Live By*. Chicago, IL: University of Chicago Press. <https://www.perlego.com/book/1852464/metaphors-we-live-by-pdf> (5 May 2023).
- Lakoff, George; Johnson, Mark. 1999. *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought*. New York: Basic Books.
- LoBrutto, Vincent. 1992. *By Design: Interviews with Film Production Designers*. Westport, CT: Praeger.
- Löffler, Diana. 2017. *Color, Metaphor and Culture: Empirical Foundations for User Interface Design*. PhD dissertation. Julius Maximilians-Universität Würzburg.
- Mandler, Jean M.; Cánovas, Cristóbal P. 2014. "On Defining Image Schemas." – *Language and Cognition* 6, 4, 510–32.
- Margaret Herrick Library, Academy of Motion Picture Arts and Sciences. MHL AMPAS 345. Robert Boyle Papers 1933–1979, Production drawings *The Birds*.
- Martin, Adrian. 2014. *Mise en Scène and Film Style: From Classical Hollywood to New Media Art*. Basingstoke: Palgrave Macmillan.
- McCann, Ben. 2002. *Set Design, Spatial Configurations and the Architectonics of 1930s French Poetic Realist Cinema*. PhD dissertation, University of Bristol.
- McCann, Ben. 2004. "A Discreet Character? Action Spaces and Architectural Specificity in French poetic Realist Cinema." – *Screen*, 45, 4, 375–82.
- Merleau-Ponty, Maurice. [1945] 2003. *Phenomenology of Perception*. London: Routledge and Kegan Paul.
- Ortiz, María J. 2011. "Primary Metaphors and Monomodal Visual Metaphors." – *Journal of Pragmatics* 43, 6, 1568–80.
- Ortiz, María J. 2015. "Films and Embodied Metaphors of Emotion." – Maarten Coëgnarts, Peter Kravanja (eds.), *Embodied Cognition and Cinema*. Leuven: Leuven University Press, 203–20.
- Raim, Daniel. 2015. *Harold and Lillian: A Hollywood Love Story*. Adama Films. 93 minutes. <https://vimeo.com/ondemand/haroldandlillian> (13 November 2023).
- Raim, Daniel. 2020. *The Man on Lincoln's Nose*. Adama Films. 40 minutes. <https://vimeo.com/ondemand/themanonlincolnsnose> (5 May 2023).
- Rastimo, Kaisa. (dir.) 2002. *Hayflower and Quiltshoe*. Kinotaurus. 75 minutes. DVD.
- Rivette, Jacques. [1954] 1985. "Essential." – Jim Hillier (ed.), *Cahiers du Cinéma: The 1950s: Neo-Realism, Hollywood, New Wave*, 132–5.

- Sarris, Andrew.** 1962. "Notes on the Auteur Theory." – *Film Culture* 27, 1–8.
- Schubert, Thomas W.; Waldzus, Sven; Giessner, Steffen R.** 2009. "Control over the Association of Power and Size." – *Social Cognition* 27, 1, 1–19.
- Sobchack, Vivian.** 1992. *The Address of the Eye: A Phenomenology of Film Experience*. Princeton, NJ: Princeton University Press.
- Sobchack, Vivian.** 2016. "The Active Eye." – *Studia Phaenomenologica* 16, 63–90.
- Tang, Peipei; Ye Haocheng; Du Jianzheng.** 2015. "The Spatial Size Metaphor of Power Concepts: A Perspective from Embodied Cognition." – *Acta Psychologica Sinica* 47, 4, 514–21.
- Tashiro, Charles.** 1998. *Pretty Pictures: Production Design and the History Film*. Austin: University of Texas Press.
- Tikka, Pia.** 2008. *Enactive Cinema: Simulatorium Eisensteinense*. Helsinki: Publication Series of the University of Art and Design.
- Tikka, Pia.** 2022. "Enactive Authorship: Second-Order Simulation of the Viewer Experience – A Neurocinematic Approach." – *Projections* 16, 47–66.
- Ylänen, Helena.** 2002. "Heinähattu ja Vilttitossu." – *Helsingin Sanomat*, 18 October.
- Yu, Ning; Yu, Lu; Lee Yue C.** 2017. "Primary Metaphors: Importance as Size and Weight in a Comparative Perspective." – *Metaphor and Symbol* 32, 4, 231–49.

KATRIINA ILMARANTA has been an award-winning production designer for Finnish theatre, film, and television since the 1980s. With the rise of digital visualization technologies, her focus shifted to this area, and her PhD dissertation in 2013 was on real-time virtual set design. From 2000 to 2008, she acted as a professor for production design at Aalto University. Currently, she works as an entrepreneur on digital visualization projects supported by the EU ESI fund and other financiers.