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# EXPRESSIVE SPACES IN DIGITAL 3D CINEMA

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Owen Weetch

# Expressive Spaces in Digital 3D Cinema

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*For Phyllis Reed, who loved the movies.*



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## Introduction: The Expressivity of Space

Space, in film, is an expressive construct. The classical and postclassical continuity styles often provide establishing shots to inform us of the layout of the locations in which the story we are watching is to take place before closer images follow in sequence. These images are chosen in order to give us better, more salient access to these shown spaces. Editing tends to work alongside this selective framing to put the images at the service of narrative.<sup>1</sup> The way these spaces are constructed and revealed to us constructs meaning. Such spaces can express a social situation within the film's narrative. The image can be peopled sparsely or filled with characters. The way that these characters move through the constructed spaces and their interaction with objects within them can be deployed by filmmakers to express their relationship with each other, or to their relationships to wider contexts. Proximity is also vital to our understanding of these relationships. Language that we commonly use to describe inter-personal relationships and lived experience often carries over into the way we discuss certain shots and framings within the film world. Describing people as 'close' suggests they are intimately acquainted with each other while saying that they are distant suggests the opposite. Likewise, close-ups in film often give us the impression that we have privileged access to characters' interiority. 'A long shot', in turn, is not just a technical term to describe an image that puts us at a distance; it is also a colloquial phrase we use to suggest the uncertainty of an initial estimate.

Imagine a hypothetical sequence where a character runs across a very large room in order to hug another, a traversal which is shown in an extended take and in long shot. Upon seeing this, we might initially infer that he or she has not seen the other in a long time. In this case, we could suppose that the running character feels affection for the person they eagerly rush to embrace. If they do not do so, and instead choose to walk slowly, we might interpret this slower traversal of the space as a signal of that character's dislike, reticence or even fear of the other person. Each possibility is valid, especially because the lack of close-ups restricts our understanding of the emotions held by both parties. If the filmmakers had decided to use close-ups throughout the sequence, this would have allowed a greater concentration on and understanding of these characters' emotions. However, this would have potentially sacrificed emphasis on the act of traversal itself, which was made so expressively ambiguous through the use of the long shot. In each case, cinema's technical properties construct and manipulate our impression of spaces in which things happen, allowing us to analyse those occurrences and interpret the meanings they construct.

Because the majority of us see with two eyes rather than one, stereoscopy's addition of another lens to the camera can create the impression that the space represented by the image before us has three-dimensional depth.<sup>2</sup> The stereographic manipulation of the image is achieved through two different material decisions, the results of which can change this impression of the image's depth and therefore alter the ways in which we can interpret that image's meaning. The first of these manipulations consists of adjusting the angle at which the two lenses converge. The point at which the lines of sight of the lenses intersect is level with the screen plane and determines, therefore, what will emerge past or recede behind that screen. Anything in front of this point of convergence seemingly emerges out past the screen plane into what is technically termed as negative parallax while, conversely, any diegetic object behind the point of convergence recedes into the depths of stereoscopic space behind it, which can be termed positive parallax. The second variable, which is often termed either the inter-axial distance, inter-axial, or inter-ocular depth, is dependent on either increasing or decreasing the distance between the two lenses.<sup>3</sup> Increasing the distance will give a greater impression of stereoscopic depth while decreasing it will flatten the image. Once either or both of these decisions have been put into action, our impression of the

distances within the film world and its proximity to us are subject to multiple inflections and alterations.

Using the hypothetical sequence described above, consider some ways in which these alterations might affect our impression of the film world and those who live in it. In a long shot of the characters in the room, the stereographer could situate the point of convergence so that one character would be placed in negative parallax, in front of the screen and seemingly out in the audience space, while the other would be relegated to positive parallax behind the screen. Placing them on either side of this boundary would accentuate the impression of distance between them. Or they could both be placed on the same side of the point of convergence, so that they would seemingly inhabit the same space already. The stereographer could also increase the inter-axial distance to create the impression of a yawning spatial chasm between the two inhabitants. Alternatively, the shot's inter-axial could be reduced. This would give the impression that they were closer than their compositional placement implied or, more cynically, that they were cramped up next to one another, as if cloyed and suffocated for space. In each of these examples, stereographic fine-tuning changes the shot's impression of space and in doing so impacts upon how we can interpret it.

This book, then, contends that stereoscopy can be controlled as yet another technological device within the filmmaker's arsenal that can be manipulated in order to construct meaning. The stereographic manipulation of the image can work alongside shot choice, editing and other properties of *mise-en-scène* to construct expressive spaces in which meaningful actions might occur. Through close reading of five very different contemporary digital 3D films, I will demonstrate how being sensitive to this stereographic manipulation can nuance and enrich the critical appreciation of stereoscopic films. This volume demonstrates that the expressive placement of characters and objects within 3D film worlds and the stereographer's unique ability to play with proximity and distance in these spaces can construct meaning in ways that are unavailable to 'flat' films.<sup>4</sup>

This is admittedly neither a well-established nor a popular position. Despite Sergei Eisenstein's early proclamation that 'to doubt that stereoscopic cinema has its to-morrow is as naïve as doubting whether there will be to-morrows at all' (1949: 45), the majority of film theory and criticism is and has been rather less optimistic. While André Bazin did much to proselytise deep-focus cinematography and delineate the ways in which it could contribute to the expressivity of filmed space, he asserted that

‘one should not count on a victory for stereoscopy in the war of 3-D’ (Bazin 1985: 13). More recently, film critics Mark Kermode and Roger Ebert have also positioned themselves as outspoken critics of the format, writing articles tellingly entitled ‘No, Your Eyes Aren’t Deceiving You – 3D Really is a Con’ (2010) and ‘Why I Hate 3-D (And You Should Too)’ (2010) respectively. This notion of stereoscopy as something of a ‘con’, a ruse to get bums on seats, is quite a common discourse. John Belton (2012) argues that stereoscopic cinema is unlikely to become the norm and was only efficient as a ploy to ensure that cinemas converted to digital exhibition in the lead up to the phenomenally successful *Avatar* (James Cameron, 20th Century Fox, U.S., 2009). In this vein, Kermode asserts that rather than existing as an aesthetic contributor to ‘the cinematic experience’, the format is ‘a pitiful attempt to head off piracy and force audiences to watch films in overpriced, undermanned multiplexes’ (2010). Ebert argues that 3D is ‘a waste of a perfectly good dimension ... add[ing] nothing essential to the moviegoing experience’ (2010). His article is similarly concerned with stereoscopic exhibition’s perceived shortcomings, noting that for some it is ‘an annoying distraction’ while others experience ‘nausea and headaches’ (Ebert 2010). He also takes issue with 3D exhibition’s darkening of the screen image that is a result of wearing 3D glasses (Ebert 2010). Such criticisms are not far removed from complaints about previous and short-lived 3D ‘booms’ during the 1950s and the 1980s, when in each case a handful of US stereoscopic films were produced—some of the most famous among them being *Bwana Devil* (Arch Oboler, Arch Oboler Productions, USA, 1953), *House of Wax* (Andre De Toth, Warner Bros., USA, 1953), *Kiss Me Kate* (George Sidney, MGM, USA, 1953), *Creature from the Black Lagoon* (Jack Arnold, Universal, USA, 1954), *Dial M For Murder* (Alfred Hitchcock, Warner Bros., USA, 1954), *Jaws 3-D* (Joe Alves, Universal, USA, 1983) and *Friday the 13th Part III* (Steve Miner, Jason Productions, USA, 1982). Rick Mitchell’s work on the 1950s films notes that the format’s unpopularity was commonly attributed to two factors (2004: 208). One of these pertains to exhibition issues such as audiences’ reluctance to wear the glasses necessary for viewing the 3D effect and ‘poor projection’, where ‘any significant mismatch between the two images would induce eye-strain’ (Mitchell 2004: 208). This criticism regarding issues of projection and spectatorship persists. In 2011, L. Mark Carrier of California State University claimed that ‘you’re increasing your chances of having some discomfort’ (Child 2011), his study of 400 cinemagoers showing that viewing a stereoscopic



film was three times more likely to induce eye strain in the spectator. The other factor Mitchell (2004) attributes to the failure of earlier 3D is still perhaps the most pervasive. He states that the popular conception was that the majority of 3D films being released were of poor quality and that they concentrate on “‘in-your-face’ gimmicks’ (Mitchell 2004: 209). Sheldon Hall and Steve Neale also note that the perceived gimmickry of these 3D films meant that the technology’s reputation was ‘soon harmed by its association with low-budget “exploitation” pictures’ (2010: 147). As Akira Lippit observes, discussions of stereoscopic film have ‘often veered toward [...] its relation to genres of excess [such as] horror, soft-porn, [and] exploitation’ (Lippit 1999: 213–214). It is notable that these kinds of film, as Lisa Purse observes regarding those released during the 1980s, often made extensive use of negative parallax, which she describes as 3D’s ‘most well known but often pilloried trick’ (2013: 131). 3D’s ability to bring diegetic objects out into the audience space, then, has often been blamed alongside popular assumptions regarding certain modes of cinema for a perceived ‘gimmickry’, a novelty trick that comes to be seen as inherent to the format. As Ebert put it, 3D ‘is unsuitable for grown-up films of any seriousness’ (2010). Writing in 2012, Keith M. Johnston notes that ‘critical language, and critical agendas, have remained constant, focused on the limitations of the technology rather than its artistic possibilities’ (2012: 259).

Sidestepping these reactions to the format that, as Purse points out, ‘risk [...] conflating issues of technology, technical competence, cultural value, and artistic expression’ (2013: 130), recent years have seen more constructive critical and scholarly attention paid to 3D. In particular, Ray Zone’s two-volume history of the technology (2007, 2012) is an essential informative resource while Miriam Ross’s recent work, *3D Cinema: Optical Illusions and Tactile Experiences* (2015), is an indispensable asset for the scholar of stereoscopic film. She outlines the aesthetic strategies particular to 3D film, paying particular attention to the technology’s ‘hyper-haptic’ qualities and its ability to involve the spectator on an ‘embodied’ level across a broad range of films (Ross 2015). Thomas Elsaesser has also discussed the body of the digital 3D film’s spectator, viewing the digital technology as ‘only one element resetting our idea of what an image is ... [that alters] our sense of spatial and temporal orientation and our embodied relation to data-rich simulated environments’ (2013: 221). These alterations, for Elsaesser, point to the arbitrary nature of criticism that confines 3D to certain genres or kinds of film:

[I]f one thinks of 3-D [...] as the vanguard of a new cinema of narrative integration, introducing the malleability, scalability, fluidity, or curvature of digital images into audiovisual space [...] then the aesthetic possibilities are by no means limited to telling a silly story, suitable only for kids hungry for superheroes, action toys, or sci-fi fantasies. (2013: 237)

This position is a useful rebuke to assumptions regarding the ‘kinds’ of films for which 3D is suitable, as well as the findings of Carrier’s survey, which prompted him to assert that that ‘there aren’t going to be any benefits in terms of understanding the movie better or making the movie more meaningful, as far as we can tell’ (2011).

This book is wholly concerned with addressing and correcting this assumption, aiding the viewer of 3D films to better understand their particular representational strategies and the meanings that those strategies construct. While the above work is invaluable when considering what differentiates stereoscopic films from their ‘flatter’ versions and the particular modes of spectatorship they occasion, there is, as of yet, precious little criticism or scholarship dedicated to understanding the ways in which these differences work across individual films in expressive ways. Purse’s recent *Digital Imaging in Popular Cinema* (2013) is one of the few key exceptions and perhaps the most instrumental text in this regard. Dedicating an entire chapter to analysing *Hugo* (Martin Scorsese, GK Films, USA, 2011) and *Tron: Legacy* (Joseph Kosinski, Disney, USA, 2010), Purse investigates how 3D can work ‘in addition to framing, composition, and focal length’, so that ‘negative or positive parallax [...] encourage in the spectator a more pronounced sense of depth, and of spatial relationships within the film world’ (2013: 134). She asks that the reader analyse how:

the foregrounding—in a more or less pronounced manner—of spatial configurations interleaves with other elements of audio-visual narration to produce meaning ... When does the presence of D-3-D’s [digital 3D’s] spatial foregrounding matter? When does the spectator’s awareness of it matter? How does the presence of D-3-D’s spatial foregrounding bear on the process of meaning making and interpretation? (Purse 2013: 134)

By exploring how stereography contributes to certain texts’ meaning construction as an expressive element of *mise-en-scène*, this book will provide some answers to these questions.