

Vertical Screening: Aesthetics and Formatting of Relocation

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Abstract

Although the vertical format is widespread in still images such as photography and painting, it is unusual for cinema and film outside experimental explorations. For decades, the rectangle dominated the appearance of cinematography and other moving images and was conventionalized as their natural form. In recent years, however, the vertical format of moving images became very popular. Initially associated with smartphone videos, vertical videos and films have increasingly attracted attention on online platforms, inspiring projects such as Vertical Film Festival (VFF), giving the ambitious project *Vertical Cinema* a specific cultural context and stimulating a (self-)historization of vertical framing and screening. In digital moving image culture, the vertical format becomes successively normalized while, remaining connected to the traditional cinematographic rectangle in several conflicting ways. Drawing on Francesco Casetti and format theory, the paper suggests to discuss vertical formats as an aesthetics of relocation which involves cross-media adaptations, reciprocal transformations and plasticity of cinematic formats. With it, it shifts the focus from experience to formats as a key for the understanding the cinematic and filmic relocation and the (dis-)continuities between analogue and digital moving images. In order to examine its relationship to vertical formats, the paper explores relocation as both the *formatting of image circulation* and the *circulation of image formats*.

In 2011, Tate Modern presented Tacita Dean's monumental cinematographic installation *Film*, which was shaped as a 13-meter-high perforated filmstrip. At the time when film scholars and filmmakers alike were controversially discussing the technological transition from analogue to digital, Tacita Dean's work became an emblematic statement in the discourse of 'the end of film'. While the industry successively abandoned analogue technology, many experimental filmmakers and artists embraced the materiality of film — often in order to counteract the industrially planned obsolescence.¹ For Francesco Casetti, this exhibition of the

¹ Vicky Smith, 'The Full Body Film', *Sequence*, 3 (2012), 42–47; Kim Knowles, 'Blood, Sweat, and Tears: Bodily Inscriptions in Contemporary Experimental Film', *NECSUS*, 2.2 (Autumn 2013), 447–63.

analogue materiality in a gallery or museum constitutes a relocation of cinema. Principal elements of cinematographic setting such as a dark room, a projector and a screen are reinstalled in an art space.² The relocation goes along with transformations imbuing cinema with expectations usually linked to art.³ Yet, the shifts do not result from the changed institutional framing alone. One of the most striking features of *Film* is its vertical format: the vertical CinemaScope. It was produced by turning a 35 mm anamorphic lens ninety degrees. This verticality connects the analogue film technology with the site-specific traits of the Turbine Hall: The format refers to the vertical image transport that prevails in almost all analogue film apparatuses.⁴ In addition, the work was commissioned by Tate Modern to depict the Turbine Hall and to be exhibited in its eastern part.⁵ The format adopts the proportions of the hall and embodies the architectural oblongness. Thus, the verticality negotiates between the analogue materiality and the new location of cinema, anticipating an upright and mobile spectator in the museal dispositive.

When Tacita Dean's gigantic *Film* was shown, Apple's iPhone had already been on the market for four years. Launched in 2007, iPhone enlarged the screen surface by relinquishing a hard keyboard and implementing a touchscreen. From the start, it was advertised as a new screening device for watching films, constituting another end of possible relocations, namely onto a small and intimate screen.⁶ Functioning also as a recording device, iPhone furthermore contributed to the spread of the moving images in vertical format and, with it, to the transformation of the cinematic formats in the digital realm, showing how sites of relocation may actively shape the images they have to accommodate.

In Casetti's concept of relocation, formats, however, do not play a major role. Rather, experience is a key factor in exploring the continuities and discontinuities between analogue and digital cinema as well as between theatrical and nontheatrical viewing sites. Basing the notion of media on experience, Casetti aims to avoid reducing (post-)cinema to questions of media materiality. He thinks of medium not primarily as a device or a material support, but as a cultural, site-specific form of experience.⁷ The relocation follows two paths: the *relocation of films*, as a question of content delivery, and the *relocation of cinema*, as a question of viewing settings.⁸ Nevertheless, formats seem to vitally

² Francesco Casetti, *The Lumière Galaxy: Seven Key Words for the Cinema to Come* (New York: Columbia University Press, 2015), pp. 17–18.

³ Ivi, p. 18.

⁴ David Bordwell, 'Paoli Gioli's Vertical Cinema', in: *David Bordwell's Website on Cinema*, August 2009, <<http://www.davidbordwell.net/essays/gioli.php>> [accessed 29 November 2020].

⁵ Nicholas Cullinan, 'Tacita Dean, Film, 2011: Summary', <<https://www.tate.org.uk/art/artworks/dean-film-t14273>> [accessed 29 November 2020].

⁶ Martine Beugnet, 'Miniature Pleasures: On Watching Films on an iPhone', in *Cinematicity in Media History*, ed. by Jeffrey Geiger and Karin Littau (Edinburgh: Edinburgh University Press, 2013), pp. 196–210 (197).

⁷ Casetti, pp. 19–20.

⁸ Ivi, pp. 47–53.

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affect both forms of relocation: initially indicating the shape and size of an image, formats impact the way images are exhibited and experienced. They help us to grasp the environmental dimension which relocation emphasizes.⁹ As Tacita Dean's installation illustrates, an image format is operative in two ways. Externally, it regulates the fitting in, the embeddedness into an existing environment; internally, it regulates the compositional, aesthetic and motivic affordances.¹⁰ Moreover, formats not only influence how relocating images are presented at their destinations, how they fit into the new spaces, formats also address the process of media migration and, thus, the distances images have to cover in order to reach a new destination: While relocation raises the question 'Where is Cinema (Today)?',¹¹ formats offer a productive category for reflecting the actual transitions between different locations or screen technologies. In the process of relocation, images have to face different technological workings, varying aspect ratios and screen sizes. Large cinema images have to be adapted to small screens and to their aspect ratios, or vice versa. For this purpose, formats have to be standardized, protocols for reformatting, rescaling and compatibility such as letterbox, pillar-box, pan and scan or blow up have to be established. Thus, formats concern and interrelate the destinations and the routes of relocating images.

Therefore, I suggest shifting the focus from experience to formats in order to reflect on the relocation and the digitalization of the cinematic. Vertical formats of large and small screens are of particular interest. Although the vertical format is widespread in still images and is considered portrait format in photography and painting, it is unusual for cinema and film outside experimental explorations. For decades, the rectangle dominated the appearance of cinematography and other moving images and was conventionalized as their natural form.¹² The history of the standardization of the cinematic rectangle is well documented and did not develop in a linear fashion. It can be briefly summarized by three caesuras: introduction and implementation of 35 mm and 4:3 aspect ratio by Thomas Edison and his chief engineer William K. L. Dickson c. 1900; specification of the Academy standard and readjustment of the aspect ratio (1:1.37) after introduction of film sound in the 1920s; finally, the institutionalization of widescreen cinema, resulting from the success of Cinerama and CinemaScope in the 1950s.¹³ In recent years, however, the vertical format of moving images became very popular. Initially associated with smartphone videos, vertical videos and films have increasingly attracted attention on platforms such as YouTube, Vimeo, and later

⁹ Ivi, p. 29.

¹⁰ On these two aspects of image formats see Michael Niehaus, *Was ist ein Format?* (Hannover: Wehrhahn, 2018), pp. 25–31.

¹¹ Malte Hagener, 'Where Is Cinema (Today)? The Cinema in the Age of Media Immanence', *Cinéma & Cie. International Film and Media Studies Journal*, 11.2 (Fall 2008), 15–22.

¹² Ted Hovet, 'The Persistence of the Rectangle', *Film History*, 29.3 (Fall 2017), 136–68.

¹³ For a full historical account see John Belton, *Widescreen Cinema* (Cambridge, MA and London: Harvard University Press, 1992).

IGTV and TikTok, inspiring projects such as Vertical Film Festival (VFF), giving the ambitious project *Vertical Cinema* a specific cultural context and stimulating a (self-)historization of vertical framing and screening.¹⁴ In digital moving image culture, the vertical format becomes successively normalized while, at least for the time being, remaining connected to the traditional cinematographic rectangle in several conflicting ways and also indicating the changes images undergo in the process of migration. In the following, I will discuss the vertical form of moving images as an aesthetics and formatting of relocation, arguing that relocation implies both the *formatting of image circulation* and the *circulation of image formats*. The latter involves cross-media adaptations, reciprocal transformations and the plasticity of formats.

Formatting of Relocation

In his study on mp3, sound studies researcher Jonathan Sterne made a case for integrating format theory into media theory. Formats specify ‘a set of rules according to which a technology can operate’¹⁵ and have a ‘contractual and conventional nature’.¹⁶ They are standardized measurements which impact the appearance, aesthetics and inner workings of a given medium. Following Sterne, Haidee Wasson called for the formatting of film studies, arguing that formats are more precise categories for examining digital culture than the ahistorical, unchanging and expansive concept of a medium.¹⁷

However, it is not very productive to play off formats and media against each other, and there is also a risk involved. Terminologically, formats contain the notion of form and shaping (in-forming). Historically, image formats often denote the size, proportions and, thus, the outward shape of a picture.¹⁸ Thereby, formats risk introducing the form/matter distinction which has a long philosophical pedigree. Especially with regard to the digital and its discourses of immateriality, formats can reinforce the (still deployed) opposition between the analogue material medium and digital immaterial information. In the Aristotelian-Platonic tradition, it is precisely the concept of form that is ahistorical and is intended to secure the essence of an entity. In media theory, too, the concept is often dematerialized, such as in Luhmann’s medium/form distinction and in other

¹⁴ The Australian Vertical Film Festival and the Austrian *Vertical Cinema* project both provide brief histories of vertical format in moving images functioning, at least partially, as a way of self-legitimation. See the webpage of the festival <<https://www.adamsebire.info/vertical-film-festival/about>> [accessed 29 November 2020] and the special issue of *Kontraste Cahier*, 3 (2013), dedicated to the *Vertical Cinema* project.

¹⁵ Jonathan Sterne, *Mp3: The Meaning of a Format* (Durham and London: Duke University Press, 2012), p. 7.

¹⁶ Ivi, p. 8.

¹⁷ Haidee Wasson, ‘Formatting the Film Studies’, *Film Studies*, 12.1 (Spring 2015), 57–61 (p. 58).

¹⁸ Niehaus, p. 9, pp. 9, 26–37.

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Aristotelian-inspired concepts of mediality.¹⁹ Instead of being an alternative to medium, formats have to be addressed as part of material media arrangements. They are productive analytical tools because they can reorganize established media-theoretical framework and raise different questions about media. For Sterne, for example, formats function both at a smaller and larger scale than media. They highlight ‘smaller registers like software, operating standards, and codes, as well as larger registers like infrastructures, international corporate consortia, and whole technical systems.’²⁰ In any case, formats have to materialize in order to be operative. Formats can be distinctive because an individual medium employs many different formats. Specific formats can coalesce with specific cultural practices, such as mp3 or GIFs facilitating a culture of sharing and spreading of content. Some formats such as 16mm or Super8 are closely linked to amateur or avant-garde practices, while others such as CinemaScope prevail in the film industry. The affordances of formats equally affect the production, circulation and exhibition of media content. Instead of hierarchizing media and formats, Sterne invites us ‘to ask after the changing formations of media, the contexts of their reception, the conjunctures that shaped their sensual characteristics, and the institutional politics in which they were enmeshed.’²¹

Recent research on formats, which is conducted against the background of digital technologies, often emphasizes their role for distribution, circulation and spreadability of media content.²² This close relationship between formats and circulation makes them suitable for the analysis of relocation. Whereas the focus on ‘the flows and mobilities of contemporary visual culture can also obscure new formations of material and contextual specificity’, formats can help to illuminate how ‘moving images also touch down at identifiable moments’, ‘in particular places’ and at ‘differentiated and material social sites of cultural engagement’²³. Formats and relocation are intertwined in several ways, which I suggest to differentiate into the *formatting*, *preformatting* and *reformatting* of circulation on the one hand and the *circulation of formats* on the other.

First of all, we can briefly introduce three different kinds of analogue and digital *formatting* that may be involved in the exhibition, circulation and relocation of moving images. In the digital realm, (audio-)visual container formats such as GIF, Matroska (MKV), mp4 or mov and corresponding compression codecs, being standardized algorithmic actors which encode and decode data, are

¹⁹ On hylomorphism and media theory see Olga Moskatova, *Male am Zelluloid: Zum relationalen Materialismus im kamerlosen Film* (Bielefeld: Transcript, 2019), pp. 57–79.

²⁰ Sterne, *Mp3*, p. 11.

²¹ *Ibidem*.

²² Ivi, p. 1; Lucas Hilderbrand, *Inherent Vice: Bootleg Histories of Videotape and Copyright* (Durham and London: Duke University Press, 2009); Erika Balsom, *After Uniqueness. A History of Film and Video Art in Circulation* (New York: Columbia University Press, 2017).

²³ Haidee Wasson, ‘The Networked Screen: Moving Images, Materiality, and the Aesthetic of Size’, in *Fluid Screen, Expanded Cinema*, ed. by Jeanine Marchessault and Susan Lord (Toronto: University of Toronto Press, 2007), pp. 74–95 (p. 76).

usually measured in file size and resolution. Analogue film formats are defined by different measurements, which do not automatically coincide. Formats such as 35mm, 16mm or Super8 specify the width of the filmstrip, while they are furthermore differentiated according to the aspect ratio of the projected image as standard or widescreen. For example, a 35mm film may equally feature an aspect ratio of 4:3, being a standard gauge, or 1:2.35, being an anamorphic wide gauge.

As Tacita Dean's installation exemplifies, the relocating images have to fit into new environments which are already *preformatted* somewhat.²⁴ This way, compatibility between formats — for example, between cinematic image formats and televisual or digital screens formats — becomes an issue, which impacts not only the circulation but also the exhibition and production of relocating images. In particular, the art history and image theory by Jacob Burckhardt,²⁵ David Summers,²⁶ and Wolfram Pichler and Ralph Ubl²⁷ underline the close relationship between formats and space. Without initially being concerned with the circulation of images, they can nevertheless productively complement the media theoretical perspective because traveling images have to finally reach a definite location that confronts the images with its own site-specific conditions. Drawing on their different accounts of the relationships between formats, image and space, Michael Niehaus develops the idea of a *preformatted* space.²⁸ Format is a particular feature of a pictorial object that occupies space and, thus, raises questions of embeddedness and separation from the surroundings.²⁹ By giving images their material shape, formats perform the task of situating them within a spatial context and regulate whether an image can be placed in given surroundings or not.³⁰ Invoking the typical function of the image frame, Niehaus further entrusts the formats with the task of differentiation between interior and exterior, a virtual space of representation and a concrete space of presentation — a focus which can be also found in Summers' as well as Pichler's and Ubl's writings.³¹ Simultaneously, the space of presentation establishes a preformatted space.³² Drawing on art historical considerations of Jacob Burckhardt, Niehaus argues that architecture and architectural elements such as wall surfaces, domes or alcoves functioned as historically specific preformatted spaces for images and sculptures.³³ The art historical epochs differ in how rigorously the architectural preformatting is imposed upon the images or harmonized with the depicted. To a

²⁴ On preformatted environments see Niehaus, p. 12, 30.

²⁵ Jacob Burckhardt, 'Format und Bild' (1886). In *Jacob Burckhardt: Vorträge 1844–1887*, ed. by Emil Dürr (Basel: Benno Schwabe, 1918), pp. 312–23.

²⁶ David Summers, *Real Spaces: World Art History and the Rise of Western Modernism* (London: Phaidon Press, 2003).

²⁷ Wolfram Pichler and Ralph Ubl, *Bildtheorie zur Einführung* (Hamburg: Junius, 2014).

²⁸ Niehaus, p. 28.

²⁹ Ivi, pp. 26–27.

³⁰ Pichler and Ubl, p. 145.

³¹ Niehaus, pp. 26–28; Summers, p. 43; Pichler and Ubl, pp. 143–44.

³² Niehaus, p. 28.

³³ Ivi, pp. 29–30.

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certain extent, formats themselves therefore result from the ‘previous structuring of space’³⁴ and, subsequently, begin to act not only as a material boundary, but also as a preformation that affects image genres, composition and depiction.³⁵

Furthermore, relocation also implies *reformatting*, i.e. changes of formats. Films can relocate as VHS into the domestic sphere and establish cinephile practices of collecting and watching.³⁶ On today’s small screens, formats such as mp4, AVI or GIF turn films into clips and image quality into accessibility.³⁷ Changes of formats can imply diminishment or enlargement of images and screens and, thus, also pose a problem of fitting in. Furthermore, formats can not only facilitate, but also impede relocation. For example, digital cinema package is a theatrical container format that territorializes films by preventing their uncontrolled exhibition, distribution, and relocation.

Reformatting of relocation also gives relevance to nontheatrical screen formats, since moving images formatted in VHS, DVD, GIF, mp4, mov, etc. are dependent on televisual or computerized screens for display. Screen formats are measured in aspect ratios, which affect their outward form and at the same time constitute a preformatted site for the relocating images. They particularly concern the main issue of this paper, namely vertical screen formats, which — as I will show in the next sections — also illustrate mutual exchanges between big and small screens in the course of relocation: It is the shape of the screens that especially indicates that relocation not only involves the *formatting of circulation*, but also the *circulation of formats*.

Being standardized, formats guarantee not only operativity within one medium and its infrastructure, but also cross-media interoperability, which necessitates the dissemination of formats.³⁸ Historically, the relocation of cinematic content onto different screens and displays is accompanied by the adaptation of cinematographic Academy and widescreen formats by television and later by computers and smartphones. Early television screens and computer screens were round, sometimes even vertical, for technical reasons; they had, first and foremost, to implement the early cinematographic 4:3 aspect ratio in the postwar, and later, in the 1990s and 2000s, the widescreen as standard, as a result of media rivalry and content migration.³⁹ The 16:9 aspect ratio, which is typical for HD

³⁴ Ivi, p. 30 (my translation).

³⁵ Ivi, pp. 30–33.

³⁶ Hilderbrand, pp. 34–49, pp. 175–90.

³⁷ Hito Steyerl, ‘In Defence of the Poor Image’, *E-Flux Journal*, 10 (2009), 1–9 (p. 1), <<https://www.e-flux.com/journal/10/61362/in-defense-of-the-poor-image/>> [accessed 29 November 2020].

³⁸ Jonathan Sterne, ‘The mp3 as Cultural Artifact’, *New Media & Society* 8.5 (2006), 825–42 (p. 829).

³⁹ Michael Z. Newman and Elana Levine, *Legitimizing Television: Media Convergence and Cultural Status* (New York and London: Routledge, 2012), pp. 100–128. On round and vertical television screens see Erkki Huhtamo, ‘Elements of Screenology: Toward an Archaeology of the Screen’, *Navigationen – Zeitschrift für Medien – und Kulturwissenschaften*, 6.2 (2006), 31–64 (pp. 60–63). On early round computer screens see Jacob Gaboury, ‘The Random-Access Image: Memory and the History of the Computer Screen’, *Grey Room*, 70 (Winter 2018), 24–53.

television and many computer and laptop screens, is developed in such a way as to mathematically contain all common cinematographic widescreen aspect ratios such as European 1:1.66, the American 1:1.85 and the anamorphic 1:2.35 as well as the standard aspect ratio 4:3.⁴⁰ Thus, digital screens, on which images circulate as digitally born JPEGs, GIFs, mp4s, etc., materialize historical analogue film formats, i.e. the aspect ratios and their shape.

The proliferation of cinematic aspect ratios and of the cinematic rectangle bear witness to the expectations of what kind of content is likely to circulate and relocate on the screens. Whereas Casetti and Sampietro emphasize the repetition of cinematic experience as a precondition of relocation,⁴¹ it seems that the repeated circulation of cinematic formats also contributes to a successful relocation of cinema and films alike. Also, the screen shape indicates which formats are believed to be cinematic at a given time and epitomizes a hierarchy of media positioning cinema as a desirable standard. As research on series, quality television, computer games and online advertising has shown, widescreen formats, i.e. horizontal rectangles, and letterbox were coded as especially cinematographic in the 1990s and 2000s and were adopted by other visual media on their way into the digital future.⁴² Digital media created a cinematic impression by means of remediation or materialization of the widescreen rectangle in order to legitimate themselves and strengthen their cultural value: 'In the era of convergence, the cinematic shape of the picture is ultimately as significant to many viewers as the qualities of its content.'⁴³ Before digital screens 'cinematized' as flat 16:9-screens, remediation of letterbox format was a common strategy. By deploying a letterbox view on 4:3 screens, computer games signalled a shift out of play to the spectatorial, cinematic mode.⁴⁴ In the late 1990s and early 2000s, series such as *The X-Files* (Fox, 1993–2002), *The Sopranos* (HBO, 1999–2007) and *The West Wing* (NBC, 1999–2006) began to letterbox the images on 4:3 television screens, drawing a distinction between regular and cinematized content while accepting the overall shrinkage of the image.⁴⁵ Letterbox format results from the *relocation of films* and was originally implemented in order to adjust the cinematic widescreen to 4:3 television without cropping the image. It signifies both the incompatibility of image formats in transition and the necessity to fit into a preformatted space.

⁴⁰ This mathematical compromise goes back to Kerns H. Powers. On 16:9 see Neman and Levine, pp. 119–21.

⁴¹ Francesco Casetti and Sara Sampietro, 'With Eyes, With Hands: The Relocation of Cinema Into the iPhone', in *Moving Data: The iPhone and the Future of Media*, ed. by Pelle Snickars and Patrick Vonderau (New York: Columbia University Press, 2012), pp. 19–32 (p. 20).

⁴² Newman and Levine, pp. 100–28; Harper Cossar, 'The Shape of New Media. Screen Space, Aspect Ratios, and Digitextuality', *Journal of Film and Video*, 61.4 (Winter 2009), 3–16; Glen Creeber, *Small Screen Aesthetics: From TV to the Internet* (Basingstoke: Palgrave Macmillan, 2013), pp. 84–104.

⁴³ Newman and Levine, p. 123.

⁴⁴ Cossar, pp. 9–10.

⁴⁵ Newman and Levine, pp. 115–23; Creeber, pp. 101–04.

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Turned into an aesthetic choice and conscious strategy, the letterbox began to denote the *relocation of the cinematic experience*.

Vertical Video Syndrome, or the Persistence of Cinematic Rectangle

Smartphones, and the vertical format they enable, take part in this history of circulating cinematographic formats, which testify to the relocation and cinematization of noncinematic screens. In 2007, Apple launched its touchscreen-based mobile phone. The design and advertisement of the screen anticipated the relocation of filmic content onto the new small screen: replacing the keys with touchscreen enlarged the screen area, which was the size of stamps on other mobile phones at that time, and also allowed it to be held lengthwise.⁴⁶ This way, iPhone's aspect ratio came closer to the widescreen format, prefiguring the viewing and streaming of filmic images or cinematized series on platforms such as Netflix. Furthermore, the phone was promoted as a mobile viewing device, intended for moving images. Regardless of the small screen, iPhone was explicitly presented as a medium of relocation: Steve Jobs illustrated its distinctive qualities as a viewing device by showing sequences from *Pirates of the Caribbean: Dead Man's Chest* (Gore Verbinski, 2006) — a spectacular costume drama cast with international stars and boasting special effects.⁴⁷ The next generations of iPhone added further features such as video recording and a CinemaScope application for film viewing, flagging the device both as a camera and a portable cinema.⁴⁸

Whereas the particularities of watching films on smartphones were often discussed, especially the aspects of miniaturization and tactility,⁴⁹ I am primarily interested in the format. It is as a cinematized screen of filmic relocation — by means of *circulating* a cinematographic wide format, which then leads to its cinematographic *preformatting* — that smartphone, like no other, has contributed to the popularization of the vertical format. As a medium of relocation, iPhone materializes the cinematographically coded widescreen. Surprisingly, the CinemaScope application introduced the format that was historically intended to differentiate small screens from big screens in the first place, namely televisual from cinematic.⁵⁰ The easy rotatability of the phone and its recording function made it possible to transform — to *reformat* — the cinematographic format into

⁴⁶ Beugnet, p. 197.

⁴⁷ Ibidem.

⁴⁸ Alexandra Schneider, 'The iPhone as an Object of Knowledge', in *Moving Data: The iPhone and the Future of Media*, ed. by Pelle Snickars and Patrick Vonderau (New York: Columbia University Press, 2012), pp. 49–60 (pp. 53, 55).

⁴⁹ Beugnet, pp. 196–210; Casetti and Sampietro, pp. 19–32; Wanda Strauven, 'The Archaeology of the Touch Screen', *Maske und Kothurn*, 58.4 (2012), 69–79.

⁵⁰ André Bazin, 'Will CinemaScope Save the Film Industry?' (1953), *Film-Philosophy*, 6.2. (January 2002), <<https://www.film-philosophy.com/vol6-2002/n2bazin>> [accessed 8 March 2020].

a vertical one in a twinkling of an eye. In this way, mobile phones facilitated the spread of vertical images, which originated in amateur videos circulated via social media and messaging services such as WhatsApp. Accordingly, the vertical mode was initially perceived as an amateur rather than professional format.⁵¹ While the discourses of mobile phone aesthetics often focus on low-res, intimacy, and mobility of recording, the vertical format often goes unmentioned.⁵² However, it is precisely the vertical form that emphasizes the mobility and physical presence of a human observer behind the camera and deictically marks him, endowing the image with codes of subjective witnessing and authenticity.⁵³ Because smartphones, like early film apparatuses, combine the functions of production and display of images,⁵⁴ they are the primary sites for viewing vertical videos. On computer screens or on smartphones and tablets with diverging aspect ratios, vertical videos are framed by pillar-box. Originally introduced to show older 4:3 filmic or televisual images on a widescreen without distortion, the pillar-box is a sign of the processes of relocation. Like letterbox, it is trade-off that communicates the historical asynchronicity between image formats and the intricate relationship between image formats and screen formats as a key question of circulating images.

One year after Tacita Dean's installation, videos in 9:16 or even vertical CinemaScope were widespread to such an extent that they started to provoke negative reactions. Especially, the ironic video *Vertical Video Syndrome — A PSA*⁵⁵ (Glove and Boots, 2012) has shaped the ongoing depreciative discourse. In this video, the protagonists of the puppet show *Glove and Boots* value the vertical orientation as bad taste and technical error: 'Vertical video happen when you hold your camera the wrong way. Your video will end up looking like crap.' In doing so, the vertical format is not only pathologized as a 'syndrome', but also naturalized with recourse to screen technology and physiology: 'Vertical Video Syndrome is dangerous. Motion pictures have always been horizontal. Televisions are horizontal. Computer screens are horizontal. People's eyes are horizontal. We aren't built to watch vertical videos.' The video also visually reaffirms the primacy of the rectangle and the necessity to rotate the phone by using horizontal framing, including the pillar-box. This normative line of argumentation has often been picked up in written commentaries or further videos on the net. It fails to recognize that the horizontal rectangle and its prescriptive force are not natural or physiological, but date back, first and foremost, to the modelling of

⁵¹ Miriam Ross, 'Vertical Framing. Authenticity and New Aesthetic Practice in Online Videos', *Refractory. A Journal of Entertainment Media*, 24 (2014), <<http://refractory.unimelb.edu.au/2014/08/06/ross/>> [accessed 29 November 2020].

⁵² Caridad Botella, 'The Mobile Aesthetics of Cell Phone Made Films: From the Pixel to the Every Day', *Revista KEPES*, 9.8 (2012), 73–87.

⁵³ Ross.

⁵⁴ *Ibidem*.

⁵⁵ The original video is no longer accessible. For shorter version *Vertical Video Syndrome (Clean Version)* see: <<https://www.youtube.com/watch?v=f2picMQC-9E>> [accessed November 2020].

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noncinematic screens on cinematographic (widescreen) formats and to the (pre) formatting of historical and anticipated relocation.

Considering the historical plurality of image formats and also the technically motivated round shapes that many screen media have had at the beginning, it is only in view of the naturalized persistence of the cinematic rectangle and its adaptation by other media that the vertical format can appear as deviation, lack of techno-aesthetic expertise, or experimental innovation in production and display of moving images.⁵⁶ Formats prove to be more than technical problems; they also embody aesthetic values. The implicit aesthetic norms and discursive strategies, such as pathologizing or perfection, become especially visible in times when new formats are introduced. In his historical analysis, Ted Hovet has shown that the cinematic rectangle became prevalent not only for technical or economic reasons; rather, the processes of standardization were always imbued with aesthetic preferences, judgments of taste and opinions on what moving images ought to look like.⁵⁷ Accordingly, he remarks:

[...] the display of an image is also rhetorical: it asserts an argument about the proper and correct way to frame the image and in its most extreme form admits of no alternative. Reducing the discussion to issues of technical properties (or economic expediency) disguises its function to control, contain, and, of course, shape the content of the image in a particular way.⁵⁸

The aesthetic control asserts a conservative impulse and correlates projection and production according to the rectangular format. The latter is materialized in a series of further rectangles: in screens, projectors, cameras, masks, and on filmstrips.⁵⁹ Due to the circulation of cinematographic formats, the control also extends to analogue and digital screen media, which have assimilated and, thus, simultaneously reaffirmed the cinematic shape. *Vertical Video Syndrome — A PSA* testifies to the persistence of the rectangle and its role in the history of the relocation of films onto small screens. As if echoing Manovich's statement that new media are mathematical in logic and cinematic in appearance,⁶⁰ the video also implicitly embraces a historically specific format of cinema as model for digital media.

Historically, the delegitimizing of non-horizontal rectangular formats needs explanation. Luke McKernan recalled the history of round image formats in painting, early photography, optical toys and projecting technologies, starting from the contemporary film experiment *Lucifer* (Gust van den Berghe, 2014), which shows images recorded in a round shape with the aid

⁵⁶ On persistence of cinematic rectangle see Hovet, pp. 136–68.

⁵⁷ Ivi, pp. 140, 156, 165.

⁵⁸ Ivi, p. 140.

⁵⁹ Ivi, p. 162.

⁶⁰ Lev Manovich, *The Language of New Media* (Cambridge, MA: The MIT Press, 2001), p. 180.

of a Tondoscope.⁶¹ In the nineteenth century, magic lantern projections were often round due to the shape of the lens and the light beam.⁶² William K. L. Dickson, too, experimented with round formats in addition to square and rectangular ones,⁶³ as evidenced by his recordings [*Newark athlete No. 1*] (1891). In early film, these conventions survived in terms of circular masking, which may be partially applied, such in the film *Santa Claus* (G. A. Smith, 1898), or completely dominate a moving image, such as in *London's Trafalgar Square* (Wordsworth Donisthorpe, 1890).⁶⁴ In 1918, the Italian journalist and illustrator Emmanuele Toddi still bothered to question the omnipresence of the cinematic rectangle in favour of round picture formats, by referring to the physiology of the human eye.⁶⁵

In order to become the dominant cinematic shape, the rectangle first had to displace the circle, which was widespread in magic lanterns in the nineteenth century.⁶⁶ The manuals of the time seem to presuppose the circle rather than the rectangle as the default mode for the magic-lantern projection. Also, it was common to vary the formats and outlines of the projected image by means of different masks. The masks could not only be of round, square, oval or oblong shape, but also vary in horizontal or vertical orientation.⁶⁷ The pre-cinematic practices of projection in the nineteenth century enact the famous 'dynamic square' which, for Eisenstein, could incorporate the plurality of formats, including the vertical ones.⁶⁸ The aesthetic considerations dominated. The image shape and orientation were expected to be appropriate to the object. For example, vertical rectangular or oval forms were recommended for portraits as well as tall objects and buildings, while rounded squares were considered suitable for landscapes.⁶⁹ Thus, formats have been associated with specific genres, entrusting them with the task of internal compositional, aesthetic and figurative regulation.

The Dynamic Square of Digital Moving Images

Eisenstein advocated a comparable plurality of formats in his lecture "The Dynamic Square" given at the Academy of Motion Picture Arts and

⁶¹ Luke McKernan, 'The Round Window', in *Luke McKernan*, 18 October 2015, <<https://lukemckernan.com/2015/10/18/the-round-window/>> [accessed 29 November 2020].

⁶² Hovet, pp. 146–50.

⁶³ Belton, pp. 19–22.

⁶⁴ The short films can be seen at Luke McKernan, 'The Round Window'.

⁶⁵ Emmanuele Toddi, 'Rectangle-Film [25x19]' (1918), in *Screens*, ed. by Dominique Chateau and José Moure (Amsterdam: Amsterdam University Press, 2016), pp. 25–28.

⁶⁶ Hovet, p. 146.

⁶⁷ Ivi, p. 151.

⁶⁸ Sergej M. Eisenstein, 'The Dynamic Square', in *Film Essays and A Lecture by Sergej Eisenstein*, ed. by Jay Leyda (Princeton: Princeton University Press, 1968), 48–66 (p. 52).

⁶⁹ Hovet, p. 151.

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Sciences in 1930. The Academy held a meeting aiming to discuss widescreen alternatives to the existing film format, which had become almost square with the introduction of sound. Three horizontal rectangles with an aspect ratio of 3:4, 3:5 and 3:6 were under consideration.⁷⁰ Eisenstein immediately defeated the standardization, declaring the horizontal formats ‘the terrible enslavement of mind by traditionalization and tradition’, which ‘represent the limits within which revolves the creative imagination of the screen reformers and the authors of the coming era of a new frame shape’.⁷¹ Above all, he opposed the exclusion of the vertical and its compositional potential. Instead of reinforcing widescreen ‘horizontalism’, Eisenstein proposed embracing the vertical composition. After presenting several anthropological, art historical, psychological and motivic arguments in support of the vertical, he finally pleaded for a reconciliation of both the horizontal and the vertical in a dynamic square, which could contain many projection formats and variable shapes.⁷²

As is well known, his vision didn’t take hold in the film industry. However, there is a history of diverse experimentation with vertical and dynamic framing paving the way to their today’s popularity in digital culture. Eisenstein’s lecture came at the end of a decade that has seen many experiments with multi-shaped masking, including vertical ones, such in Ernst Lubitsch’s *Sumurun* (1920) or Fritz Lang’s *Der müde Tod* (1929), multiple-screen dispositifs such as Abel Gance’s *Napoléon* (1927), or multiple projection in dynamic formats on concave screens such in László Moholy-Nagy’s idea of *Polykino* or ‘simultaneous cinema’ (1927).⁷³ In 1928, the vanguard architect Frederick Kiesler even designed a dynamic cinema architecture in Mondrian-like style encompassing a ‘screen-o-scop’-a device changing the screen size and shape with respect to projected images.⁷⁴ Later, films such as *The Door in the Wall* (1956) by Glenn H. Alvey Jr., which declare itself being dedicated to “dynamic frame” in the opening credits, came very close to Eisenstein’s conception in using changing shapes for dramatic needs. For David Bordwell, Paoli Gioli’s films such as *Commutazioni con mutazione* (Paolo Gioli, 1969) and *L’operatore perforato* (Paolo Gioli, 1979) form a ‘vertical cinema’.⁷⁵ By manipulating the images on the optical printer and making filmstrips, perforation holes and film frames visible, the films ostentatiously emphasize the vertical orientation and transport of moving images which is technically implemented in almost

⁷⁰ Eisenstein, p. 49.

⁷¹ Ibidem.

⁷² Ivi, p. 52.

⁷³ For a more detailed discussion see Antonio Somaini, ‘The Screen as “Battleground”: Eisenstein’s “Dynamic Square” and the Plasticity of the Projection Format’, in *Format Matters: Standards, Practices, and Politics in Media Cultures*, ed. by Marek Jancovic, Axel Volmar, and Alexandra Schneider (Lüneburg: Meson Press, 2020), 219–36 (pp. 226–31).

⁷⁴ Giuliana Bruno, *Atlas of Emotion: Journeys in Art, Architecture, and Film* (New York: Verso, 2018), pp. 46–47.

⁷⁵ Bordwell, n.p.

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all analogue projectors, printers and cameras.⁷⁶ This vertical aesthetic, which seemingly draws attention to the mismatch between the verticality embodied in apparatuses and the horizontality of projected and framed images, can be also found in materialist and structural films such as *Slides* (Annabel Nicolson, 1971) or *Little Dog for Roger* (Malcolm LeGrice, 1968) and in many found footage films by Cécile Fontaine such as *Golf-Entretien* (1984) or *Japon Series* (1991). Besides rich history of alternative and multiple projection techniques in expanded cinema, two famous World Expo projects are also worth mentioning, which specifically experiment with large scale vertical screening and, forming a monumental ‘sensory architecture’, express the historical desire to ‘expand the cinematic experience and challenge the frame of projection’⁷⁷: Designed by Colin Low and Roman Koitor, and produced by the National Film Board of Canada for the Expo 67, the multiscreen project *Labyrinth* consisted, among others, of a 12-meter long vertical screen extending over several stories and a complementary vertical screen on the floor. Both were surrounded by elliptically shaped balconies. The closely aligned architecture and the screened material were designed to interpret the theme of Expo ‘The Man and His World’ by drawing on Theseus myth, turning the *Labyrinth* into an immersive, quasi-religious ‘viewing machine’ and a ‘total experience’.⁷⁸ Three years later, at Expo 70, the British Columbia pavilion housed the ambitious project *Vertical CinemaScope*, developed by Jaroslav Frič, the head of the group SCARS (Science Art Sense).⁷⁹ Consisting of two screens, one high placed in the rear and one of regular dimension in the front, the project was architecturally composed in order to create a dynamic aesthetic of size and to enable dramatically contrasting monumentality of the screen with small projected objects.⁸⁰

Although this brief, by no means exhaustive history bears witness to vertical framing and screening predating smartphone aesthetics, it is only in today’s digital image culture that the format becomes prevalent on an everyday basis, embedding its aesthetics of plasticity, size and spatialization into a new cultural context. Remarkably, the contemporary advancement of vertical moving images was driven neither by artists nor by prestigious undertaking, but instead owes its existence to user-generated content. Although vertical format is still met with refusal, it is increasingly gaining currency online, eased, among others, by trendy application such as IGTV or TikTok. David Neal has compiled an online

⁷⁶ Ivi.

⁷⁷ Mirna Belina, ‘Mount Vertical’, *Kontraste Cabier*, 3 (special issue: *Vertical Cinema* ed. by Mirna Belina and Sonic Acts, 2013) 4–8 (p. 5).

⁷⁸ Seth Feldman, ‘Minotaur in a Box: The Labyrinth Pavillion at Expo 67’, in *Reimagining Cinema: Film at Expo 67*, ed. by Monika Kin Gagnon and Janine Marchessault (London: McGill, 2014), pp. 27–45 (pp. 35–42).

⁷⁹ Timothy Druckrey, ‘Sensory Architecture and the Cinematic Imaginary’, *Kontraste Cabier*, 3, 2013, 9–32, (pp.22–29).

⁸⁰ Ivi, p. 27–29.

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retrospective of the most successful vertical videos, which shows that the initially amateur format is now being taken up in the professional fields of music videos, journalism, online and offline advertising, and also narrative film.⁸¹ Meanwhile, the list also includes series and previews of moving images on smartphone apps. The vertical format is beginning to circulate and to be repeated itself. Although its exceptionality remains to refer back to cinema, it is starting to break away from and to rework the cinematographic norm of the rectangle.

David Neal's ambitious project *Alicewinks* (2012) is one of the first vertical moving images with the length of a feature film that explores the narrative potential of the format. At the same time, the work unfolds an astonishing aesthetic of relocation and of the dynamic square. The animated film is 164 minutes long and draws on different children's book illustrations of Lewis Carroll's *Alice's Adventures in Wonderland* (1865), which mainly appeared in vertical book formats. Therefore, there is no consistent aesthetics or representation of the main characters. Instead, the respective book illustrations undergo different manipulations in order to capture their peculiarities. Moreover, the shrinkage and enlargement of Alice begins to comment on the everyday scalability of the images circulating on digital screens – both in terms of the differences in screen sizes and the scaling effects on particular screens, namely computer desktops and pinchable touchscreens. On the one hand, the relocation of moving images is characterized by the co-existence of very large screens (such as media façades, cinema or IMAX) and very small ones (such as tablet, laptop and smartphone), so that the scaling, malleability and adaptability of images to different *screen sizes* becomes a genuine problem of formatting.⁸² 'We become witness to the abstractions attendant upon that meeting between screens of an unchanging size and the fluid images which grow or shrink to fill them. In other words, the pictures that travel among these screens participate ... in a drama of distortion and size.'⁸³ In the digital realm, Alice's aesthetics of scale become an aesthetic of relocation, indicating issues of both delivery and of fitting into an environment. On the other hand, Alice's 'drama of distortion' and scale also refers to the plasticity of *image sizes* and ratios, which is distinctive of display on small digital screens. On computers, laptops, tablets or smartphones, images appear in multiple windows, which Friedberg has framed as 'multiples',⁸⁴ and have to permanently adjust to the shape and the size of the screen. On tablets and smartphones, this adaptability is closely connected to the rotation from the vertical to the horizontal mode, and vice versa. On touchscreens, the images also change their size and scale through pinching gestures. This necessity of the image

⁸¹ David Neal, *Vertical Video: A Retrospective. The First Ten Years (2007–2016)*, <<http://www.exit109.com/~dnn/vertical/>>, [accessed 29 november 2020]. On offline advertising see also Ross.

⁸² Casetti, p. 135–36; Wasson, 'The Networked Screen', pp. 74–95.

⁸³ Wasson, 'The Networked Screen', p. 86.

⁸⁴ Anne Friedberg, *The Virtual Window: From Alberti to Microsoft* (Cambridge, MA: The MIT Press, 2009), pp. 217–39.

to fit the screen frame, to stretch and to be malleable, highlights that the sizes, aspect ratios and edges of today's screens have become the dominant properties of visual experience.⁸⁵ While Eisenstein positions the dynamic square against standardization, the plasticity that Alice perfectly personifies in the vertical moving image *Alicewinks*, becomes a question of the insertion and adaptivity of images and their formats on preformatted digital screens.

The circulation of vertical format is also documented by Vimeo channel *Tallscreen*, which is dedicated to artistic exploration of the format. Among others, the channel presents works which were originally released on *Vertical Film Festival*, taking place in Australia since 2014. While *Tallscreen* recommends using HDSLR cameras to avoid undesired mobile aesthetics and, thus, dissociates itself from smartphone as a means of moving image production,⁸⁶ the festival also renounces smartphones as a means of image display. This detachment also represents an autonomization of the vertical format, which, with the aid of artistic involvement, becomes suitable for cinematographic projects and the big screen. In this respect, *Vertical Cinema* proves to be an especially significant phenomenon. The project invited internationally renowned filmmakers and media artists to produce short site-specific films for the vertical projection. Ten films premiered at the Kontraste *Dark as Light* Festival in 2013, followed by several further festival screenings up until now. Commissioned to be shown in narrow, tall spaces, especially churches, the films establish a highly visible relationship with the architecture. The verticality of the screens takes up the verticality of the church windows. In this way, it not only reflects on the traditional metaphor of images and screens, but also becomes a means of insertion into the new environment, a means of compatibility with the surrounding. As in Tacita Dean's *Film*, the verticalization of a big screen goes along with the relocation of the cinematographic dispositive into the church, even including collective reception and sitting, immobilized spectators. Although the films were produced by mixing different analogue and digital techniques, they were printed on 35mm and vertically projected with a custom-built projector in 1:2.35 aspect ratio and, thus, in vertical CinemaScope.⁸⁷ It is no coincidence that Billy Roisz and Dieter Kovačič dedicate their film *Bring Me the Head of Henri Chrétien!* (2013) to the squeezing and unsqueezing of the images. The anamorphic technology of the CinemaScope, which relied on the lenses and widescreen experiments of the Frenchman Henri Chrétien dating back to 1920s, compresses the image by a ratio of approximately 2:1 during recording onto 35mm and dilates it again in projection.⁸⁸ Roisz and Kovačič elevate these compressions and decompressions to an aesthetic principle by verticalizing and combining them with the glitch

⁸⁵ Stephen Monteiro, 'Fit to Frame: Image and Edge in Contemporary Interfaces', *Screen*, 55.3 (Autumn 2014), 360–78 (pp. 360–61).

⁸⁶ Tallscreen, <<https://vimeo.com/groups/tallscreen>> [accessed 29 November 2020].

⁸⁷ Belina, p. 6.

⁸⁸ Belton, pp. 40–43, pp. 138–57.

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art process datamoshing in order to emphasize the vertical shape of the new screen. Basing the work on a genre historically associated with CinemaScope, the film recycles visual and acoustic fragments from Western movies such as *Once Upon A Time in the West* (*C'era una volta il West*, Sergio Leone, 1968), while the Western *Bring Me the Head of Alfredo Garcia* (Sam Peckinpah, 1974) also appears in the title.

Although the initiators of *Vertical Cinema* contextualize their project within the tradition of expanded cinema and name Jaroslav Frič' *Vertical CinemaScope* as a source of their inspiration,⁸⁹ it is impossible to think of it undependably from mobile phones and vertical videos. After all, smartphones have propagated not only the 9:16 format, but also 9:21 and, thus, have implemented a vertical CinemaScope to go. A simple rotation allows the user to switch between the persistent cinematic rectangle and its vertical suspension. *Vertical Cinema* tells of both the history of expanded screens and the everyday rotation of smartphones. With it, the circulation of vertical formats results in the reformatting of the cinematic. The cinematic widescreen, which was adapted by numerous electronic and digital small screens as sites of relocation, returns transformed. In current digital culture, the verticalization of a cinematic screen does not merely mean experimenting with the plasticity of image formats anymore, it also means approximating the verticality of intimate small screens and monumentalizing it, and thus negotiating the relationship to technologies that are in the process of changing the long-standing paradigms of visual entertainment.

⁸⁹ Belina, pp. 4–8.