

Topic Page: [Cinematography](#)

Definition: **cinematography** from *Merriam-Webster's Collegiate(R) Dictionary*

(1897) : the art or science of motion-picture photography

cin•e•mat•o•graph•ic \-■ma-tə-■gra-fik\ *adj*

cin•e•mat•o•graph•i•cal•ly \-fi-k(ə-)|ē\ *adv*

Summary Article: **Television Cinematography**

From *The SAGE Handbook of Television Studies*

Television cinematography is a set of highly complex technological, social, aesthetic and industrial-economic practices. Understanding these relationships and relating them to practices in other media requires a multi-dimensional approach that historically contextualizes cinematography industrially, sociologically, technologically and aesthetically. This chapter outlines a number of fields of research that help shape the television image using a combinative approach that allows a fuller understanding of the forces that shape the cinematographic styles of television. Although the chapter presents areas of research as discrete sections, it will become apparent that they are heavily interdependent, and that these fields of study address questions across boundaries.

The Structures of Production

The field of production culture offers a paradigm that examines the impact of cultures of laborers on the work of film production, and the ways in which its practitioners understand it. This culture is revealed through a proliferating number of channels: a wide array of production personnel interviews available to the public through trade journals, popular magazines and blogs, as well as DVD commentaries. These texts constitute an apparent 'behind the scenes' look at production culture whose transparency demands critical interrogation. John Caldwell (2008) emphasizes the contemporary Hollywood industry management of publicity 'to market its production practices as a spin on the "authentic" production process and as on screen entertainment', and claims that these publicity items allow media producers to control the cultural narratives about production, as well as to transform them into profit-generating mechanisms.

The structure of media production culture has a large impact on style, since television and film crews draw from same labor pool in Southern California and other large production centers. Industry convergence also promotes technological crossover among productions for different platforms: theatrical, network, cable network, internet and mobile media. Recent analyses of style tend to incorporate production context; Jeremy Butler (2010) describes his study of television style as a merger of 'problem solving' production practices with close textual readings.

Political economy studies have demonstrated repeatedly the importance of film and television holdings as conglomerates, as well as the interdependent nature of film and television (Holt 2010; Winston 1996), in addition to showing the importance of understanding the television industry's systems to understand the final product that shows up on television screens (Meehan 2010). This industrial convergence produces effects that influence all aspects of television production, not just cinematography. Caldwell (2008) identifies the following trends that are shaping current practices of

television production: 'migratory labor and churn, outsourcing's bid culture, speed shooting and hyperproduction, the digital sweatshop, the director/producer as bible, masculinized tools and worker masochism, gendered production space, industrial contact zones, studio tracking boards and counter-tracking boards, criticism as stealth marketing, branding as industrial viral practice and the collapsed workflow caused by the DI (digital internegative).

Feminist scholars have added further nuances to the study of production culture through an examination of ways that media production genders labor. Studies of the production of texts by women producers and directors expand production culture to include issues of gendered labor and production by examining the work and conditions of labor for 'below the line' workers, many of whom are female (D'Acci 1994; Levine 2001). Miranda Banks (2009) points out the critical differences that emerge in such studies of above and below the line workers. She finds the distinction 'crucial to understanding the nature of production ... to seeing different possibilities for intervention by feminist production studies scholars, and she puts special emphasis on the definition of above the line as 'creative' and below the line as 'craft'. Such markers can be unpacked to find economic and cultural values that accrue to work defined as either Creative (above the line) or Technical (below the line) (Banks 2009; Caldwell 2008). The field of feminist production studies is developing paradigms that unpack the descriptions of masculinized labor and production practices, which allows a more detailed study of the practice of cinematography.

Television Production Technologies

Both analog and digital production technologies and practices co-exist in the early 21st century. These practices are often combined in production. Analog capture material is digitized and processed through a digital workflow. These negotiations among technologies occur at the level of production, and debate flourishes in the professional trade journals and their online bulletin boards.

While some directors and cinematographers conduct extensive field tests of HD cameras and 35 mm cameras to make a shooting choice, others make the choice on less closely reasoned grounds (Bosley 2009). Ongoing discussions of the advantages and disadvantages of film versus HD capture and extensive critiques of various cameras dominate threads on cinematography discussion boards. For many high profile HBO and cable network series, capture occurs on either 35mm film or HD. Such high-end series may also use film dailies for the pilots, but generally switch to digital dailies for the rest of the episodes (Thomson 2010).

A survey of trade journals reveals that capture formats, though clustered around HD or 35mm, also include other non-standard formats, such as Super 16 film, the capture medium used for AMC's *Walking Dead* (Sweeney 2007), and Super 8 film, used for filming a small portion of an episode of *Life on Mars* (Holben et al. 2009). Production interviews contain numerous references to choice of format being one that cinematographers make by considering 'whatever serves the show'. This statement can be viewed as an exemplar of Caldwell's industrial self-publicizing (Holben et al. 2009).

Many network series shoot on HD. The series *Lie to Me* (Fox) switched from film to digital capture for its second season (Oppenheimer 2010), although the Director of Photography reports that they chose the Arri D-21 camera because of its ability to deliver 'film like' images. Fox's new series *Chicago Code* shoots on HD, primarily with the MX Red One (Mullen 2010). DSLRs are also being used in some cases for television commercial shoots and for some series episodes, like the season finale of *House* in May 2010 (Crow 2010).

For postproduction, distributed workflow may be added to the labor conditions and factors of industry structure affecting the practice of cinematography. The distribution of files on a server enables several editors to work simultaneously, even from different geographic locations. While there is currently no systematic data to support the claim that this practice is as yet an industry standard, it is used frequently on television series with identified 'high production values' – ones that follow the stylistic model of theatrical film production, i.e. single camera filming. For HBO's *True Blood*, shot on 35mm, Technicolor develops and telecines the footage. The practice uses server-based editing of files that allows multiple edit units to work on the same core files. Except for dailies and delivery processes, the output is file-based. *True Blood* cinematographer Matthew Jensen claims that the post process benefits him, as increased access to grayscale allows for 'much subtler contrast changes and color combinations' (Goldman 2010, p. 77). This process is still rare enough to be described as a 'major test case for an all file-based workflow for an episodic TV series originating on film' (p. 77).

Television Styles and Convergence: Cinematic, Televisual and Videographic

As indicated, media convergence and the commonality of the production labor pool help distribute stylistic elements across television, cinema, internet and mobile media. The wide range of televised material – sports, soap operas, game shows, shopping shows, cable movies, mini-series, dramas, comedies, news and reality shows – also complicates the study of televisual style. Caren Deming (2010) points out that the television industry has undergone several periods of convergence. She examines the early post-World-War-II years of the industry as a 'period of experimentation and innovation characteristic of a period when new technologies' begin the process of interpenetration with an established technology, and she concludes that since its earliest days, television has resisted any easy dichotomization between media, and that 'convergence between cinematic and televisual styles is evolutionary' (Deming 2010, p. 139), and needs to be understood as such. This conclusion implies that the realms of style in television are not static, but are in constant states of flux, as a brief synopsis of the debates over these categories indicates.

In their most basic forms, the categories *cinematic* and *televisual* signify two different broadly conceptualized categories of program style, with a range of variations in each. These categories generally differ at the levels of camerawork and lighting, set design and sound. Shows using a cinematic style tend to shoot with one camera, using precise framing and movement within sets constructed in depth. This allows camera movements to occur laterally and in depth, or on both the x and y-axis. These factors distinguish cinematic style on television from a style more commonly perceived as 'televisual', which is identified by little camera movement on the y-axis, use of shallow set construction, and three-camera production (Butler 2010). Further stylistic differentiation occurs between shows that utilize Steadicam shots versus those that use handheld, shakier camerawork. This is one of the characteristics of a visual style that refers to documentary cinematography: shaky image, whip pans and generally unsteady framing.

However, the concept of the televisual expands from this narrow definition in the work of other theorists, including John Caldwell (1995) and Caren Deming (2010). Caldwell's televisuality describes a complex series of determinations that produce varying visual styles on television. While Caldwell uses the same definition of 'cinematic' as does Butler, he inserts another category standing against the cinematic, instead of relying on Butler's narrow use of televisual. The category of the 'videographic',

defined as a hyperkinetic style that uses a high number of effects, opposes the cinematic in this model (Caldwell 1995). This redefinition expands the televisual to contain a number of different presentational styles; indeed it is its stylization that distinguishes it, along with an inversion of the importance of style and substance. The televisual cannot be analyzed apart from the industrial circumstances producing it, so he firmly embeds the televisual within the cultural and economic circumstances of the television industry in the 1980s (Caldwell 1995). Deming's (2010) approach branches out further, defining televisuality as a 'synthesis of stylistic, technological, and ideological characteristics' (p. 126). This is a fluid definition of the term. She explores the constitutive elements of televisuality: spatiality, aurality, femininity and hybridism while locating this formation historically. She finds elements of televisuality present in her analysis of *The Goldbergs* (1948–1954), a series from television's 'golden age', indicating a long historical timeline for this concept (Deming 2010).

Shows like *24* have used multiple frames onscreen as an alternative to editing. Critics have classified this stylistic technique as an artifact of technological convergence and the social usage of internet and mobile media (Friedberg 2009; Manovich 2001; Tudor 2008). The usage of multiple frames enables audiences to experience several simultaneous points of view within one scene. This acts as an alternative to continuity editing. Multiple frames can also provide points of view into simultaneous scenes occurring in separate locations, creating a stylistic alternative to traditional crosscutting. Shifts in framing and editing attributable to convergence, and earlier, the importance of television channels as an ancillary market for theatrical releases (Bordwell and Thompson 2001), have produced a mutant version of continuity editing called 'intensified continuity'. This system of editing is marked by the absence of establishing shots, increased use of close ups and shots that include multiple points of narrative focus, and shorter average shot length, leading to faster editing pace (Bordwell and Thompson 2001).

Convergence also has created a production environment in which advertising and show content are blurred and combined in different ways (Jenkins 2002). In addition to product placement, the framing of shots on television now is sometimes partially obliterated under a pop up advertisement for another show on the same network, usually one following the current show or one aimed at the same audience. These pop up ads block part of the screen, rendering precise framing somewhat incoherent and splitting the audience's attention between the narrative and the moving pop up ad. This practice seems limited as yet to episodic network television, yet, significantly, it crosses show categories, appearing on everything from network dramas like *House* (Fox) to reality-style DIY shows like *The Barefoot Contessa* (The Food Network), and complicates categories of style. Following Herbert Zettl (1989), it would seem that this reconfigures television's onscreen space as graphical space, where such overlays call attention to a perceived lack of depth (as cited in Deming 2010, p. 133). The use of these pop ups creates a layered onscreen image that resembles a computer screen, thus activating some of the spectatorial relations explored in the research cited below.

Mobility and Aesthetics

The ability to watch television on mobile media generates a discussion of technological, industrial, economic and aesthetic ramifications. Convergence has been discussed in terms of its ability to 'unbundle' shows into segments for mobile media (Dawson 2007). Theoretical discussions of segmentation and flow and remediation give some context to contemporary unbundling of television shows for migration to other platforms (mobility). These discussions can be traced to the work of Raymond Williams (1974) on television's stream of programming, advertising and previews of new shows as a 'seamless, irreversible flow that elided the differences between its constitutive elements'

(as cited in Dawson 2007, p. 239). John Ellis' work on the segment as the foundational unit of television answers Williams by arguing that flow does not erase the distinctions or 'seams' between short segments (Ellis 1992 [1982]). Jane Feuer assimilated both Williams and Ellis' points of view through proposing a 'dialectic of segmentation and flow ... segmentation without closure' (Feuer 1983). The debate on flow has also been given a long historical timeline through the claim that the medium of television was designed with movement in mind, a claim that links the development of portable television to an increasingly mobile culture beginning in the 1960s (Spigel 2004). Erik Dawson (2007) provides the preceding summary of the flow argument in context with the notions of 'remediation' (Bolter and Grusin 2000). This term refers to the 'representation of one medium in another' and Bolter and Grusin embed this argument, derived from Marshall McLuhan's (1964) statement that the content of a medium is always another medium (as cited in Bolter and Grusin 2000, p. 45). They also argue that a medium is itself something which remediates; that is, 'that which appropriates the techniques, forms and social significance of other media and attempts to refashion them in the name of the real' (Bolter and Grusin 2000, p. 65). This constructs an inherent relationship between media, as no one medium can ever operate without reference to other media.

It is clear that 'unbundling' a television program can produce another revenue stream for the owners of the material, and the proprietary 'locking' of some unbundled television shows, like *24: Conspiracy*, discussed below, can limit the migration of content to multiple platforms. Dawson (2007) argues that this locking also can produce a hardware-specific aesthetic that prevents media texts from being able to move across platforms.

Producers also use mobile media to present auxiliary material that is not televised but is related to the episode. Many shows, such as *30 Rock* (NBC) or *Battlestar Galactica* (SyFy) have associated web series that run on the network website, while a number of series episodes are available online through either independent or network affiliated sites, usually the day after airing on television. Workflow and production issues for web and mobile media form a large category of discussion at media producer websites and bulletin boards such as www.cinematography.com or www.digitalcontentproducer.com. The former is primarily a bulletin board and *digital content producer*, run by *Millimeter* magazine and publishes online articles on production in addition to hosting extensive forums on all aspects of cinematography. A typical article recounts a specific, detailed production experience, such as the process of capture, editing and publishing to mobile media (Ozer 2008).

The adaption or reorganization of television aesthetics for the small screens of mobile devices has taken several approaches. These distinctive approaches are not simply modifications of television production to suit technological requirements of mobile media, but rather are discursive formations formed by the same complex determinations that have impacted television aesthetics (Dawson 2007). *24: Conspiracy*, a mobile series derived from *24*, provides a case study of how a very stylized television aesthetic adapts into mobile screens. This series was developed for delivery over the Vodafone system in the UK. Holson (2005) describes the look of the mobile version as one that used an overwhelmingly high proportion of tight close-ups, flat, high-key lighting, center-weighted character blocking, very shallow depth of field, and exaggerated size for elements of *mise-en-scène* deemed too small to be seen easily on a small screen such as gunshot wounds, which 'became the size of grapefruit for the mobile version'. When the web series was included on a season boxed set of *24* DVDs, the hardware specific mobile aesthetic of the Vodafone series did not translate well to the television screen. However, episodes of the regular TV series *24* remain consistently one of iTunes

most heavily downloaded items, indicating that its television aesthetic moves well among types of screens, indicating that its style represents a flexible aesthetic that derives from television production's historical concern with the variable quality of the range of television receivers available at any one time (Dawson 2007).

Newer Developments in Research

Auteur theory is another area of study that has shifted to accommodate newer models of production in the industry. The designation and role of an auteur is part of the underpinnings of studies that examine the organization of images on television. The recruitment of emerging and established cinematic auteurs in the 1980s into television commercial advertising and series production forms an influential strand in the emergence of Caldwell's (1995) concept of televisuality. However, the traditional positioning of the director as auteur has been displaced by the series showrunner (executive producer) who controls the look of show, holds the 'bible' and hires directors (Caldwell 2008). The showrunner may also be or become a cinema auteur: for example, J.J. Abrams, whose series *Alias* and *Lost* garnered him a cinema career (*Cloverfield* 2008, *Star Trek* 2009) and have promoted him as an auteur on the basis of his oeuvre. This provides an example of a case in which a television showrunner working in a videographic (Caldwell) style appropriates a foundational element that allows recognition of style, the status of auteur. The creation of auteurs in television, a mass industrial production, also raises a question about the perceived 'need' for auteurs. Theorists view the valorization of auteurs as particularly problematic in US television, due to its mode of industrial production (Shattuc 2010). Why are some show creators dubbed auteurs, with 'vision', while others remain completely anonymous? These arguments trace the lineage of auteurism from the Western Renaissance through literary studies of authorship, art house cinema, authorship studies of US studio directors, to contemporary production culture studies that view the 'author' as one more element of a controlled industrial discourse. In these public interviews and 'behind the scenes articles' (discussed above) cinematographic choices can be attributed to terms like 'inspiration', or 'individual style', without situating choices in current ideological, industrial practices.

Research in the area of culture and technology situates television cinematography in broader, historicized studies of the social functions of technologies. In this field, technology is widely viewed as more than hardware; it is a type of matrix of contexts that permits a range of types of image productions (Caldwell 1995), and a set of instrumentations that carry cultural fears, aspirations and other concerns related to the role of technology in our lives. Studies in this field are careful to avoid questions of vulgar technological determinism, pointing out those ideological forces at work on the invention and diffusion of technologies. The introduction of new technologies bases itself on older, more widely accepted ones, while the appeal of the new technology is presented as a dream or vision of progress (Sobchack 2004).

Localized studies in this area analyze specific problems, such as the ways that the rhetoric of filmmakers reveals how they rationalize the introduction of digital technologies, including 3D, into already existing analog processes, and how these technological shifts can enable different choices (Turkle 2004), which are then rhetorically transformed into individual creative aesthetic choices.

Research on technological, aesthetic and industrial convergence is not monolithic; it is inflected by studies of a simultaneous splintered field of narrower local production cultures (Caldwell 2008), and also by ways in which one of the basic metaphoric and actual elements of media – the screen – bears

multiple meanings and uses in a culture heavily penetrated by media devices that are in many cases only a screen, like a tablet computer or a smart phone. The large variety and number of screens that a person living in a developed nation encounters ranges across technologies and formats: analog projection, television screens, older cathode ray tubes, plasma and LED screens in many sizes and aspect ratios. Passive spectatorship oscillates with interactive uses of a screen as device. This development is being studied in more localized ways, which means that classical film theory's universal approach to cinematography, editing, sound, performance and reception studies is undergoing adaptation into multiple, fragmented perspectives. Work on screen studies for the so-called 'new' media produces models of spectatorship that rest upon an assumption that a computer window is not coterminous with the screen, since in fact, multiple windows may be open on a computer screen at the same time. These multiple windows can give access to local or global data, thereby creating a disunified spectator position very different from an image organized around a Renaissance style single perspective image. In this situation, classical theories of spectator and screen do not explain the multiple perspectives and positions that viewers may take, alternating spectatorship with interactivity or immersion (Friedberg 2009; Manovich 2001; Tudor 2008). Since the window, a term from computer usage, is not congruent with either television or cinema screen (Friedberg 2009), the unpacking of the processes of working with screens (spectating and using), and the ideological meanings of screens, begins to diverge from a strict Lacanian model. In this model, the 'screen' acts as a mirror, and is heavily implicated in the formation of subjectivity through lack, or presence and absence (Grosz 1989). This lack then anchors spectatorship. An alternative view to spectatorship is emerging through the consideration of interactivity and the use of multiple windows, one that is tentatively predicated on pattern and randomness rather than absence or presence (Hailes 1999). Such discussions of multiple windows and/or screens unpack the metaphors and ideology of the window, the screen and the frame, and, through such analysis of the fractured perspectives as they offer, may point us toward aesthetic forms in which the 'multiple and simultaneous' supersede sequentiality (Friedberg 2009, p. 243). This approach will become crucial in 21st-century media research, as the image undergoes further repositioning with relationship to any type of screen. We currently see a renewed interest in 3D movies, in which the image can escape the boundaries of the frame and seem to float between the spectator and the physical screen of the theatre. Holographic projection systems that produce images seeming to occupy three-dimensional space, and which can be interacted with, will further challenge theories of the relationships of human viewers and users to images.

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