Fantastic Views
Superheroes, Visual Perception, and Digital Perspective

As a cultural conglomerate, the superhero genre has always been engaged with transmedia procedures. Since its inception, it has profoundly relied on transmedia storytelling and the ability to expand across multiple media platforms. Ranging across newspaper strips, comic books, radio shows, motion pictures, television series, and video games, the superhero fiction is characterized by narrative extension. Offering a variety of artistic intersections and numerous forms of productive exchange, it allows for acts of adaptation as well as aesthetic transformation. In the digital age, the two-dimensional drawings of comic panels and traditional matte paintings have turned into the three-dimensional sets of CGI and digital cinema as well as the navigable worlds of video games. Hence, the superhero genre not only gives us extraordinary characters who move through the complexity of fantastic worlds but also provides us with a perspective on mutable modes of perception. Exploring a novel valuation of dimensionality, the genre points to the emergence of new spatial sensibilities and viewing capacities.

What makes the superhero genre a particularly comprehensive field for the deployment of perceptual forms and effects is its capability to render vision through the production of supernatural skills. Utilizing a remarkable amount of vision-based powers, the superhero's mode of perception is communicated as a wide-ranging viewing ability. It revolves around night vision, x-ray, and telescope viewing; it makes use of extensive optical facilities, technical intelligence, and sensing equipment. Moving from analog to digital perspectives, the superhero introduces and mediates alternate ways of managing information, in terms of both narration and viewing. As a figure of mutability and transformation, he implicates changes of and challenges to perceptual modes as they have been developed by video games' first-person perspectives or the spatial potential of 3D narratives. Moreover, as the character's abilities

are delivered from mutable viewing positions, they lend themselves to an exploration of optical standpoints. The superhero is a figure that allows us to see through its superhuman eyes; still, at the same time, it is a figure to be looked at. Furthermore, this kind of conception is deeply affected by the ways in which configurations of technology, viewer positioning, media text, and context take shape in specific arrangements and are controlled by particular apparatuses. Thus, as projection and perception are in constant interaction, they influence the condition for each other's presence and thereby constantly transform themselves.

This essay investigates the superhero genre's thematic and aesthetic formations of viewing capacities. I will discuss the superhero genre as a critical space for rethinking assumptions around viewing positions as well as the historical frameworks through which they have been consistently addressed and evaluated. In doing so, three aspects deserve special attention. The first section considers the process of masking, and thus the oscillation between looking at and seeing through a mask; the second discusses the process of mapping, and thus the interrelation of spatial positioning and spatial representation; and the third debates the process of mediation, and thus the vacillation between interaction and immersion.

Following and fostering aesthetic transformations, the superhero's media existence exemplifies a modality capable of reconciling several characteristics of visual technologies. It becomes proficient to point to the performative process of generating perception and perspective, and, what is more, to allude to media's contribution to this very process.

1. Masking

As a figure whose visual capacities exceed those of the human eye, the superhero provides a specific mode of viewing. Being equipped with superhuman visual powers, he does not only enhance his own perceptual abilities but also redirects our gaze to the field of vision. This way of seeing and being seen becomes concentrated and condensed through the mask. "The mask is the perfect synecdoche for the superhero,"[1] states Scott Bukatman, pointing to interrelated visual structures of exposure and disguise. The mask conceals the

1 Scott Bukatman, *Matters of Gravity: Special Effects and Supermen in the 20th Century* (Durham: Duke University Press, 2003), 212.

wearer's true identity and thereby constructs another identity. It brings the unknown to recognition and the unrepresentable to representation. Still, as a costume or cover, the mask is not clandestine but attracts attention: "In their secret identities, superheroes all hide in plain sight."[2] The mask is a means of covering as well as of uncovering. While the masked is seen to be masked, the secret is revealed to be no secret at all. Thus, the mask indicates a presence of absence. It reveals what it hides, and it hides what it reveals.

This status of instability is often put on display by the contours of the mask itself. Many superheroes wear half masks, like Batman or Daredevil for example. Deriving from sixteenth-century mask types of the Italian commedia dell'arte, which for the first time used a half-mask theatrically, this kind of masquerade is a study in contrast. Half masks cover the upper face, leaving the mouth and jaw exposed. Hence the face's immobile upper part is in contrast with its mobile lower part, and the ornamental framing of the eyes is in contrast with the laying bare of the mouth. The half-mask depicts a face that does not exist as a whole but is always already fragmented. In enforcing a concentration of the eyes, however, it requests the viewer to look out for minuscule movements behind the shield. The combination of eyes and mask fascinates because it pairs the mobile with the immobile.[3] As a result, the spectator's view is split up as well, as Paul Coates underlines regarding *The Dark Knight* (Christopher Nolan, 2008): "The recognition therefore seems to be a half-recognition, a seeing in the denied periphery of vision."[4] Thus, the half mask is information conveyed and information withheld. It brings together mobility and immobility as well as stasis and flexibility.

In digital cinema, masking and layering have become defining practices to alter the actor's facial expression: "Whilst analogue cinema features human characters faithfully captured by an analogue camera, digital cinema often involves the modification of these human characters. […] What this means is that the characters that we see on film are a hybrid of 'real' flesh and blood actors and digital imagery."[5] With digital technology, the process of assimila-

2 Ibid., 213.

3 An interesting counterexample is Rorschach's constantly mobile mask in *Watchmen* (Zack Snyder, 2009). Thanks to Matthias Stork for this comment.

4 Paul Coates, *Screening the Face* (Houndmills: Palgrave Macmillan, 2012), 93.

5 William Brown, "Man without a Movie Camera – Movies without Men: Towards a Posthuman Cinema?", in *Film Theory and Contemporary Hollywood Movies*, ed. Warren Buckland (New York: Routledge, 2009), 69.

tion reaches a point of amalgamation. This kind of hybridization has implications for the notion of transformation. Digital imagery raises questions about bodily boundaries and the concepts that are associated with them. While the human is being encased within a second skin of digital technology, his organic face seems to fade into invisibility. The digital superhero emphasizes this structure by erasing the distinctions between face and mask. This becomes most obvious when the half mask is turned into a whole mask, as in the case of Spider-Man. Thus, within cinematic representation, the identity of the performer becomes unimportant; the mask of technology itself is the thing: "The cinematic superhero is becoming the incarnation (ironic word!) of electronic technology; digital beings that embody the fact of being digital. So after Tobey Maguire pulls Spider-Man's mask over his face the figure onscreen literally ceases to be Tobey Maguire."[6] The digital mask does not depend on a face to wear it. It exists as a self-contained feature, ever more light and malleable.

Digital characters have an element of flexibility within them that can be stretched beyond the limitations given by raw material. They allow for a specific kind of transmutation. Andrew Darley analyses this transformation via the example of *The Mask* (Chuck Russell, 1994), a film that exemplifies a specific stylistic transfiguration from classical cartoon to digital cinema:

> Instead of using the computer to simulate live action cinematography, *The Mask* uses it to introduce techniques of graphic exaggeration such as 'squashing and stretching'—aesthetic techniques of the classical two-dimensional cartoon—into the 'three-dimensional photo-reality' of live action film. This produces extraordinary (and paradoxical) imagery whereby corporeality and verisimilitude gets injected into the graphic hyperbole of the cartoon aesthetic.[7]

Developing stylistic choices to make a character seem cartoon-like and preternatural, digital film has often relied on graphic manipulation and exaggeration rather than cinematographic recording. On the other hand, more recent endeavors in digital cinema aspire to achieve seamless photorealism, creating a perfect illusion of the real. Obviously, digital superheroes are presented as

6 Scott Bukatman, "Secret Identity Politics," in *The Contemporary Comic Book Superhero*, ed. Angela Ndalianis (New York: Routledge, 2009), 115–116.

7 Andrew Darley, *Visual Digital Culture: Surface Play and Spectacle in New Media Genres* (New York: Routledge, 2000), 111.

spectacle, but that spectacle is shown to be both fictional (the concept of superhuman figures as fantastic characters) and nonfictional (the display of enhanced reality created by CGI). These efforts can be considered as a production process that shuttles between venture in artifice and investment in authenticity. The superheroes' world is perceptually realistic—even if, as a nonexistent place, it cannot be an index. Nevertheless, the persuasiveness of digital effects makes indexical claims.[8] Hence digital cinema offers a kind of hyperreal cartoon imagery, a continuum between mimesis and abstraction.

The mask of the superhero is not only a means of disguise; it is also a technological device. In *Iron Man* (Jon Favreau, 2008), protagonist Tony Stark (Robert Downey Jr.) applies a powered exoskeleton when he assumes the identity of Iron Man. The suit has a self-contained environment consisting of various communication arrays and sensors that turn Tony into a technologically enabled superhero. Viewed from the outside, his facial mask consists of a hermetically closed helmet that covers the entire head with a cutout across the eyes. However, the film does not only offer an outside viewpoint on the superhero's appearance. It also changes the perspective to inside the helmet to view all the information presented to the character (see Fig. 1).

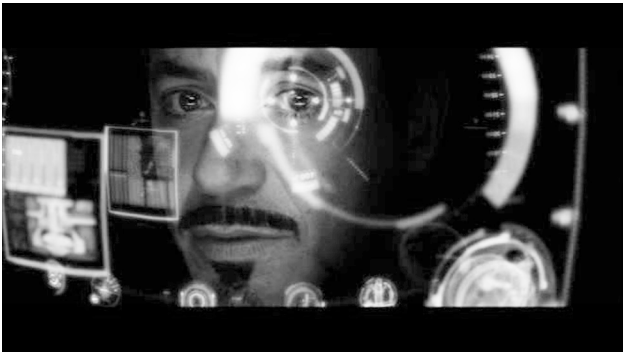

Fig. 1: The camera allows us to cross behind the mask to view the superhero's graphical user interface.

8 Frank Kessler emphasizes: "Through a shift in perspective, the 'claim of the real' no longer depends on the indexical image but on the status a viewer ascribes to that discourse." See Frank Kessler, "What you get is what you see. Digital images and the claim on the real," in *Digital Material. Tracing New Media in Everyday Life and Technology*, ed. Marianne van den Boomen et al. (Amsterdam: Amsterdam University Press, 2009), 187.

Additionally, when Iron Man starts his flights, the film inserts several subjective point-of-view shots, allowing us to see the world through the superhero's eyes. The film thus gives us a cyberview perception, shown through a digital display and accompanied by analytical data.

This entering into the inside of the mask provides a critical space for rethinking filmic assumptions around viewing positions. Significantly, the shots depicting the superhero's view through the mask lack a defined frame: we see through a screen without noticing the confines of the screen. This way of rendering space is reflexive because it indicates a specific mode of perception: it duplicates the cinema's screen and its masking action. As André Bazin was among the first to observe, the filmic screen is not the frame of a picture but a mask that produces a centrifugal configuration:

> The outer edges of the screen are not, as the technical jargon would seem to imply, the frame of the film image. They are the edges of a piece of masking that shows only a portion of reality. The picture frame polarizes space inwards. On the contrary, what the screen shows us seems to be part of something prolonged indefinitely into the universe. A frame is centripetal, the screen centrifugal.[9]

Bazin's notion of the cinematic screen as a piece of masking indicates the model of a frameless window, a now well-established concept within film theory. Its central characteristics are transparency and pellucidity: "One looks *through* a window, but one looks *at* a frame. The notion of the window implies that one loses sight of the framing rectangle as it denotes transparency […]. The window directs the viewer to something behind or beyond itself—ideally, the separating glass pane completely vanishes in the act of looking."[10] Having been developed within the framework of film theory, the idea of the unframed window as a specific model for visual perception and perspective proves to be an effective notion for wider discussion, especially with respect to digital technology: "It is the digital revolution itself, and the increasing ubiquity of 'flat' computer monitors as display surfaces, which has advanced the window to the status of a leading cultural metaphor."[11] In the digital age, the screen as a window replaces the frame as a stable construction. We witness an

9 André Bazin, *What is Cinema?* (Berkeley: University of California Press, 2005), 166.

10 Thomas Elsaesser and Malte Hagener, *Film Theory: An Introduction Through the Senses* (New York: Routledge, 2010), 14–15.

11 Ibid., 33–34.

era with more screens than ever before, and within each screen, a multitude of visual varieties. In discussing how a medium refashions other media via the process of remediation, David Jay Bolter and Richard Grusin have shown how immediacy leads to hypermediacy: "Where immediacy suggests a unified visual space, contemporary hypermediacy offers a heterogeneous space, in which representation is conceived of not as a window on to the world, but rather as 'windowed' itself—with windows that open to other representations or other media."[12] In *Iron Man*, the superhero's view through the mask is reminiscent of the cartographic mode of video games. As an intensification of the subjective point of view shot, it shares something of the cinema of the past and the computer game of the present. Its representational mode is not unified but multifaceted. Thus, the window's tendency to transparency opens itself up to the status of virtuality. Anne Friedberg emphasizes: "The window's metaphoric boundary is no longer the singular frame of perspective—as beholders of multiple screen 'windows', we now see the world in spatially and temporally fractured frames, through 'virtual windows' that rely more on the multiple and simultaneous than on the singular and sequential."[13]

In *Iron Man*, this multiplication of viewpoints is rendered visible through the superhero's subjective perspective. Offering multimediated sights as well as multiple layers of information, this visual construction differs ostentatiously from former perspective relations. In *The Language of New Media*, Lev Manovich argues that the digital layering of processes, images, and information enriches visual perception in a complex manner. In contrast to the analog organization of media forms, digital multimedia production adds more and more elements of information without establishing any conceptual tension between them. This pertains to a shift in aesthetics: "Where old media relied on montage, new media substitutes the aesthetics of continuity […]. Montage aims to create visual, stylistic, semantic, and emotional dissonance between different elements. In contrast, compositing aims to blend them into a seamless whole."[14] Thus multilayered new media compositions displace montage

12 Jay David Bolter and Richard Grusin, *Remediation. Understanding New Media* (Cambridge: MIT Press, 2000), 34.

13 Anne Friedberg, *Window Shopping: Cinema and the Postmodern* (Berkeley: University of California Press 2000), 243. For a wider discussion and a far reaching genealogy of the window as metaphor, concept and technology see Anne Friedberg, *The Virtual Window: From Alberti to Microsoft* (Cambridge: MIT Press, 2009).

14 Lev Manovich, *The Language of New Media* (Cambride: MIT Press 2001), 143–144.

as the dominant aesthetic logic, allowing the viewer to watch and see in a fundamentally different, more complex way.

The superhero's mask comes to stand for a head-mounted display. Suggesting technologically enhanced perception, it is closer to machinic than human vision.[15] As a result, the cinematic viewer is challenged to widen his perspective as well. Addressing changes surrounding the concept of the spectator in the digital age, Nicholas Mirzoeff maintains "that audiences were learning to see as computers. That is to say […] we need to learn how the computer sees, to learn how to recognize its gaze and then to imitate it."[16] Making the computer gaze accessible requires a visual enhancement of the filmic image. The camera seems to adopt a computerized visuality complete with specific digital graphics. Alexander Galloway explains: "Necessary for this effect are all the traces of computer image processing: scan lines, data printouts, target crosshairs, the low resolution of video, feedback, and so on. In other words, a deviation from the classical model of representation is necessary via the use of technological manipulation of the image—a technological patina."[17] It is this technological patina, this cyber skin that covers the filmic image like a mask. While we move into the digital domain, new modes of perception alter our way of seeing the world. As this transformation transgresses boundaries between human and machine, the digital superhero's vision is most appropriate to embody that change.

2. Mapping

Being capable of transcending the laws of physics, superheroes move through space in a special way. They explore environments, navigate them, and thereby generate knowledge about space and spatial positioning. This ability to move in and out of a geographic terrain relies fundamentally on optical machines and technologies that organize visual orientation. Many superheroes supplement their powers with special devices like night vision binoculars, infrared

15 On the concept of vision machines as technical prosthesis that alter and extend human perception see Paul Virilio, *The Vision Machine* (Bloomington: Indiana University Press, 1994).

16 Nicholas Mirzoeff, "The Subject of Visual Culture," in *The Visual Culture Reader*, ed. Nicholas Mirzoeff (New York: Routledge, 2002), 11.

17 Alexander R. Galloway, *Gaming: Essays on Algorithmic Culture* (Minneapolis: University of Minnesota Press, 2006), 56.

cameras, or telescopic lenses. Thus, the superhero's vision-based powers can be seen as a reflection of the will to enhance human perception and to extend the boundaries of the visual known—an endeavor that is long rooted in media history: "From the eighteenth to the twentieth centuries, science continually expanded the realm of the visible through measurement, representation, and revelation, using telescopes, microscopes, thermometers, X rays, photography, cinema, and digital modeling."[18] While optical organization and visual investigation became defining factors in the field of perception, they enabled vision to celebrate new triumphs:

> The primacy of the eye […] as the dominant sense organ of the twentieth century is the consequence of a technical revolution that put an enormous apparatus to the service of vision. The rise of the eye is rooted in the fact that all of its aspects (creation, transmission, reception) were supported by analog and digital machines. The triumph of the visual in the twentieth century is the triumph of a techno-vision.[19]

Yet, expanding the realm of the visible depends on the notion of the invisible. In other words, to apprehend new modes of perception is also to acknowledge that which defies easy exploration. As modernism increased visual accessibility, it simultaneously impelled the demand toward an effort of mapping. A space that demonstrates this double bind of expanding and withdrawing, of fullness and absence, is the modern city. "The twentieth century city put new concentrations of information into increasingly rapid circulation, coincident with new modes of perception," underlines Scott Bukatman. However, this development "includes the problem of mapping an urban space that had become so big, complex, and dynamic as to evade easy comprehension."[20] Thus, the city contracted and expanded in disturbing, compelling, and captivating ways: "In fiction, journalism, and cinema, the uncentered city appeared as a dark maze or labyrinth, a site of disappearance and murky invisibilities, a giant trap for the unwary, but it was also a stage for spectacular, kaleidoscopic experience."[21] According to Bukatman, the rise of the superhero as a fictional

18 Bukatman, *Matters of Gravity*, 115.

19 Peter Weibel, "The World as Interface: Toward the Construction of Context-Controlled Environment Worlds," in *Electronic Culture: Technology and Visual Representation* ed. Timothy Druckery (New York: Aperture, 1996), 339.

20 Bukatman, *Matters of Gravity*, 188.

21 Ibid., 188.

trope is inextricably linked to the extension of urbanized modernism. Thus, the superhero's way of navigating through complex surroundings and multipart environments gives us an example of the mutual implications of visual technology and mapping procedures, both of which were involved in making sense of modernity's propensity toward an experience of location and dislocation.

As a figure of utopian vision, Superman was among the first to provide a superimposed perspective on the city. Superman does not walk through the city; he flies over it, offering not only a bird's-eye view but also the ability of enhanced perception through x-ray vision. No stumbling impedes his movements, no obstruction causes him to hesitate or rest: being able to master the gaze, Superman is a panoramic authority. Thus, Superman conveys spatial negotiation through the principle of the visual sovereign. Being positioned at a considerable distance, Superman's elevated eyes gaze down to oversee the totality of events. Yet, this kind of optical superiority requires the detachment from the city and its internal mazes. Hence, Superman's mode of perception owes much to the logic of traditional mapping. It relies on principles according to which the observer is at distance with the observed.[22] Within this visual paradigm, the viewer is endowed with the capacity to apprehend the whole and to comprehend the relationship of all parts to it. Superman's aerial view implies a remote observer, a spectator who looks while being detached from the looked upon.

Batman offers another trajectory. Whereas Superman's flights over the city aim at perfect pictures of order, Batman descends to the deeper levels of chaos. Hence, Gotham City is suggestive to the point of ambivalence: "The bird's-eye view—Superman's magisterial, panoramic perception—is insufficiently panoptic. Gotham is a city defined more by its underworld. It's a concatenation of hidden spaces, corners, and traps. This city needs to be read, deciphered, made legible."[23] Instead of remaining a distant observer, Batman is obliged to approach the city. He gets involved. Diving into irregular urban forms, he explores space by experiencing it. William Uricchio has shown how this way of mapping points to urban cartography as enacted rather than objected space. While Gotham's geography emerges during actions and move-

22 On the tenet of the detached observer as a visual paradigm of modernity see Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge: MIT Press, 1990).

23 Bukatman, *Matters of Gravity*, 203.

ments, while it arises and develops by the way it is inhabited and used, it points to principles of performativity: "Gotham City stands as an aggregation of the ever-changing events depicted on its rooftops, alleys and streets rather than as a stable and coherent street grid. It stands as an enacted space, a space whose identity and meanings are bound up in the dynamic logics of performance rather than the fixed terrain of material artifact."[24] Consequently, Batman engages not so much in distant contemplation but in active navigation. This involves mobility, experience, and perception as coexistent, codependent, and mutually defining. Shifting from detached orientation to attached decentralization, Batman paves the way for a distinctively dynamic mode of mapping.

This tendency toward spatial practices as performative acts is carried forward by Spider-Man. Scott Bukatman underlines: "Superman's magisterial gaze and Batman's profound urban knowledge were revised by Spiderman's more improvisational, sensational style."[25] This is, first of all, due to a special kind of movement, and accordingly, a different kind of perception: "Superman and Batman are guardians of the urban space, but Spiderman is a trespasser. […] He is, at best, an interloper, making his own path across the spaces controlled by others."[26] Superman and Batman fly; Spider-Man slinks and swings. While the former hover over buildings, the later clings to them. It is this way of keeping close contact that becomes the distinctive criterion of the arachnid superhero: "Spiderman […] is a more tactile hero than Superman or Batman."[27] Tactility is less based on mastery than visuality. While vision is enabled by a distance between the seer and the seen, the sensual modality of touch requires closeness. However, it is not only that the proximity of touch is less controlling than the distancing gaze. It also indicates a particular kind of positioning, a mode of being in the world as a way of sharing the world. Derrick de Kerckhove emphasizes: "The physical sensation of being somewhere specific is a tactile experience, not a visual one. It is environmental, not frontal. It is comprehensive, not exclusive. My point-of-being, instead of distancing me from reality like a point-of-view, becomes my point

24 William Uricchio, "The Batman's Gotham City: Story, Ideology, Performance," in *Comics and the City: Urban Space in Print, Picture, and Sequence*, ed. Jörn Ahrens and Arno Meteling (New York: Continuum, 2010), 131.

25 Bukatman, *Matters of Gravity*, 206–207.

26 Ibid.

27 Ibid.

of entry into sharing the world."[28] Thus, the tactile experience comes to mean not simply contact but rather a profound manner of being in and at the world.

In *Spider-Man* (Sam Raimi, 2002), this manner of being in the world is presented as a movement through a world whose space itself is rendered movable. When Spider-Man crawls alongside the buildings of the city, classical principles of orientation are turned upside down: walls become floors, vertical lines turn into horizontal routes. Hence Spider-Man's ability to stick to surfaces transforms the outside of constructed environments to convert into a terrain of altered accessibility.

Fig. 2: Spider-Man's ability to crawl, stick, and sling across surfaces forces us to reorient ourselves to the construction of urban environments.

However, while the viewer follows Spider-Man's movements, he is not offered a fixed and stable viewing position. Instead, the camera itself performs spider-like movements, allowing the image to express more of Spider-Man's worldview. To achieve this effect, a digital camera system called the spidey-cam was used. Aylish Wood explicates: "The spidey-cam […] is a computer-controlled camera rigged to cables so that it can be swung between buildings or along streets. The controller is able to rotate the camera so as to twist during the recording of a swing, thus achieving the motion of swinging and

28 Derrick de Kerckhove, *The Skin of Culture: Investigating the New Electronic Reality* (London: Kogan Page, 1997), 177.

twisting through the air."[29] In this way, Wood emphasizes, "effects technology goes beyond establishing location to give a more expressive impression of that location."[30]

The expressive quality of digital effects influences spatial orientation and mediation. By swinging and swooping a viewer through a location, computer-controlled spidey-cam shots seem to throw the spectator into the space they produce. These shots diminish distance and increase involvement, shifting from representational regimes of space to performative modes of perception. What is more, as they imply movement in and as progress, they allude to tactile forms of exploration. As Erwin Straus has noticed, a distinct feature of touch is that it examines location progressively and sequentially, not totally and simultaneously, as vision does: "In the world of touch, there is no closed, realized horizon; there are only moments—and thus the urge to move from one moment to the next."[31] As a principle that addresses notions of progress and process instead of unity and entirety, touch points to a new understanding of spatiality. This affects procedures of mapping and navigation as well. In the digital age, the mapping of spatial arrangements turns from immobile grids to alternate systems more responsive to the transient and dynamic character of spatiality. As Nanna Verhoeff has shown, digital mapping as a practice and principle shifts from stable representation to unfurling performativity:

> Representation entails more or less fixed outcomes of creative production processes. […] This would be an insufficient understanding for some contemporary media practices and approaches to these practices that foreground process, mutability, flux, simulation, remediation, notions of becoming, and mobility. These characterize the "pre" to representation—the processes before representation comes into being, in its performativity.[32]

Reflecting on digital modes of movement and spatial perception, digital superheroes call into question the fixed map as a way of seeing and the predetermined tour as a way of traveling. Instead, by pushing territorial limits,

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29 Aylish Wood, *Digital Encounters* (New York: Routledge, 2007), 169.

30 Ibid.

31 Erwin Straus, *The Primary World of Senses: A Vindication of Sensory Experience* (London: Free Press of Glencoe, 1963), 341.

32 Nanna Verhoeff, *Mobile Screens: The Visual Regime of Navigation* (Amsterdam: Amsterdam University Press, 2012), 143.

they point to means of progressive exploration and spatial transmutation. In this way, they open up a dimension much wider than cohesive spatiality.

3. Mediating

Given the variety of his image incarnations as well as the changing structures of their understanding and valuation, the superhero has evolved as a highly ambivalent figure. This ambivalence infiltrates the field of perception as well as the question of perspective. Essentially, superheroes have never been only omnipotent characters with omniscient eyes and inexhaustible visual powers. They do not stand exclusively for "pixilated panopticism"[33] but simultaneously evoke implications of restriction. Exemplifying this ambiguity, the mutant Cyclops in *X-Men* (Bryan Singer, 2000) oscillates between optical force and visual confinement. His digital eyes omit blasts of energy, so he must shield them constantly. Cyclops's one-eyed appearance results from wearing a visor with a single, ruby-quartz lens running eye to eye—an irremovable mask that simultaneously shelters and constrains. Cyclops's optic beam continuously projects whenever his eyes are open and unprotected. So to prevent the destruction of any objects in his field of view, Cyclops is relentlessly obliged to use eyeglasses to contain the devastating rays. Thus, the combining of enhanced natural vision with a limited control over it points to the ambivalent status of visual capacities as media procedures. Given that a medium is that which is situated between different positions as well as that through which something propagates, digital superheroes can be discussed as mediating figures and figures of mediation.

Digital superheroes are rendered as multimediated figures who convey varying applications of their representational forms. Discussing the cross-media dispersal of the superhero, Saige Walton underlines: "Today's media mutation of the superhero [...] occurs at a technological level, by maintaining connections with its Marvel comics past while drawing attention to media reframings, through temporally heightened, filmic, and digital metamorphoses of the superhero."[34] Adapting from graphic comic series, digital cinema an-

33 Mirzoeff, "The Subject of Visual Culture," 11.

34 Saige Walton, "Baroque Mutants in the 21st Century? Rethinking Genre through the Superhero," in *The Contemporary Comic Book Superhero*, ed. Angela Ndalianis (New York: Routledge, 2009), 87.

imates the static iconography of its source to become lifelike movement. As filmic photography, it is sequential in time, but not spatially juxtaposed as comics are. Yet some of the central features of comic art have been transferred to the motion picture. For example, the lingering, contemplating gaze on the superhero is made possible in moments that bring the action to a standstill. In *Batman Begins* (Christopher Nolan, 2005) when Batman stands on a rooftop overlooking Gotham City, the narrative seems to stop and the moving image seems to freeze. Instead of combat and power, the spectator is confronted with a static figure exhibited in an extraordinarily long shot. Batman's immobility is thus displayed in a way that crystallizes his position as a static icon.

New forms of temporality have also evolved with extended uses of slow motion and mutable forms of movement and stillness. In *The Green Hornet* (Michel Gondry, 2011) when Kato fights against a gang of muggers, the camera moves into and around the space of the action. The scene is depicted with an unusual split-time approach where Kato moves at one point in slow motion while his attackers move in normal speed, which is then reversed midshot. A telescoping effect on objects in the environment also forms part of the scene, along with "Kato-vision," in which the character is able to slow time down and size up the threats against him. The ability to traverse the scene and isolate objects while still staying in motion gives the impression of reworking the logic of the comic panel in digital filmic terms. Thus, using the visual effect of bullet time, the scene indicates a specific way of transmitting spatiotemporal configurations from graphic novel to cinema. Costas Constandinides observes: "Bullet time shots splice together static and moving images to create a dynamic sense of unity by erasing the limitations of editing and by effacing the limitations of a comic book's gutter, in the sense that we are given a complete view of the space of the action without different panels or shots offering fragmented perspectives of the fight choreography."[35]

Another way of spatial organization being reminiscent of comic panels occurs in a scene when Chudnofsky sends out a hit on the Green Hornet. In a remarkable moment, the viewer witnesses the transmission of information as the frame keeps on breaking apart to divide itself over and over again. Hence the film points to a central aesthetic principle. While comic panels can be

35 Costas Constandinides, *From Film Adaptation to Post-Celluloid Adaptation: Rethinking the Transition of Popular Narratives and Characters Across Old and New Media* (New York: Continuum, 2010), 83.

used to illustrate linear processes that proceed chronologically, filmic image sections can also be used to diagram complex systems of relations in ways that allow for multiple points of entry or exit, and multiple directions for exploration. Moreover, this proliferation of sights and views is presented as an ongoing transformational process being rendered through the creative use of 3D. As such, it profoundly reconfigures how digital cinema uses depth. In an interview, director Michel Gondry commented on this operation, calling it "cellular division."[36] Significantly, Gondry's term does not refer to the logics of the split screen with its allusions to flatness but instead points to the character of the three-dimensional domain, addressing it as a voluminous unit. Thus the scene presents a complex example of dynamic transition of volume into space, space into volume, of their splicing and coexisting in the process of motion. Pointing to digital cinema's aesthetic possibilities, Constandinides speaks of an arrangement of digital bits rather than narrative beats that underline post-celluloid cinema's ability to reinvent itself through the interaction with other forms. This recurring pattern undoubtedly communicates a new trend, where moments in films challenge the seemingly seamless visual whole through a hyperconscious encoding of visual patterns that are appropriated in a playful manner.[37]

Being embedded in layered spaces and transversing various visual environments, the superhero offers multiple viewing positions. As a figure of hybridity, it has always been informed by aesthetic transformation and transmutation: "Arguably, the superhero genre is one of the most historically hybrid of all, embracing and redeploying conventions derived from other genres as well as other media. […] The inception of the superhero was, in itself, a decidedly intergeneric and transmedia formation."[38] Artistic multiplicity and generic variety lie at the heart of the superhero's creation. In the digital domain, cinematic superheroes respond to a vast expansion of story worlds as well as cultural convergence in audience agency. While digital technology introduces significant changes to the way a viewer experiences space and representation,

36 Steve Weintraub, "Michel Gondry Exclusive Video Interview *The Green Hornet*, plus an Update on his Animated Noam Chomsky Documentary", *Collider.com*, accessed September 14, 2013, http://collider.com/michel-gondry-interview-green-hornet-noam-chomsky/.

37 Costas Constandinides, *From Film Adaptation to Post-Celluloid Adaptation*, 84.

38 Saige Walton, "Baroque Mutants," 88.

it allows for the alteration of film aesthetics and perceptual modes. The current moment of digital transition invokes a productive tension between two key concepts: interaction and immersion. Both have been facilitated and cultivated by specific means of digital visuality. Whereas video games advance participatory principles, turning the viewer to a player, digital 3D enables relinquishment, permitting the spectator to abandon himself to a visually increased illusion. The former stimulates active engagement and asks for creative control; the latter diminishes distance and raises physical involvement.

Fig. 3: Much like comics' panels, filmic image sections relate multiple directions for exploration within the image.

Reshaping the viewer's experience and positioning, these perceptual modes have clearly left their marks in the aesthetic unfolding of cinema. The proliferation of the video game's first-person shooter vision transforms the traditional cinematic point of view, leading it to new modes of navigation and enabling new senses of motion and action.[39] The viewer is no longer

39 On the different devices of visual orientation in cinema and video games and the way they shape and influence each other see Geoff King and Tanya Krzywinska, ed., *ScreenPlay. Cinema/Videogames/Interfaces* (London: Wallflower Press, 2002). For a discussion on the implications of point of view and spatial perspective in computer games as a variation of classical cinema techniques see Jan-Noël Thon, "Perspective in Contemporary Computer Games," in *Point of View, Perspective, and Focalization: Modeling Mediation in Narrative*, ed. Peter Hühn, Wolf Schmid, and Jörg Hühn (Berlin: de Gruyter, 2009), 279–299.

passive but can actually witness a visual surrogate of the user's self. As a digital spectator who is informed by games' aesthetics and game-playing experience, he becomes able to break the boundaries between narrator and character, consumer and creator. In films like *X-Men* or *Iron Man*, the growing understanding of game-based visual form and style is clearly detectable. The cinematic viewer no longer looks at a figure; he looks with it. Moreover, he becomes able to mediate between games' aesthetics and cinema perspectives, user and viewer positioning, and the production of meaning as an interplay between these elements. Involving aspects that indicate interaction, the subjective perspective is used as an artistic allusion to spatial perspective in computer games where the game space is presented from the perceptual position of the player's avatar. Thus, the impression of actual occupancy and agency within the space of the fictional world opens up classical cinema's domain of perspective and positioning.

Immersion as it is offered by digital 3D is associated with the transportation to a virtual world. What is more, 3D not only renders space visible but makes it accessible. Thus, the viewer does not merely look at a picture but shares its space. Involving immediate and tangible aspects of visuality, 3D space is considered to be haptic not optic, meaning it can be both an object of vision and a haptic space as well. With regard to the aesthetics of 3D, exploring modes of proximity opens up the possibility of cinema and of our relationship with cinema as a close connection, rather than as a distant experience of observation. Thomas Elsaesser emphasizes: "As the default value of postpictorial spatial vision and in-depth sensation in the digital age, 3D would be retooling the semantics of embodied perception."[40] Digital 3D superhero films like *The Green Hornet* or *The Amazing Spider-Man* (Marc Webb, 2012) point in the direction of a conscious spatial and direct bodily perception. Producing an atmospheric perspective of disorientation, these films create spaces whose presence provides possibilities for characters in transit, spaces open for exploring and experiencing. Thus, they concentrate on spaces that resist easy mapping and tend to compose images that work against fast orientation. They compel the viewer to move close, yet at the same time, they multiply the points of contact all over the auditorium. These 3D images have the effect of overwhelming vision and spilling into other sense perceptions. Space would then be the effect of a synthesis of points, not a container or ground. It comes

40 Thomas Elsaesser, "The 'Return' of 3D: On Some of the Logics and Genealogies of the Image in the Twenty-First Century," *Critical Inquiry* 39 (Winter 2013), 240.

into being as an effect of relations. In this way, spatiality opens sense, for any location bears the potential to open up new planes, new orientations.

By offering mutable visual strategies of display, the digital superhero embraces multiple perceptual modes including principles of interaction as well as immersion. These principles should not be considered to be exclusive or separate. Instead, they can be brought together to communicate with each other. It is this oscillation brought about by the interplay between interaction and immersion that accounts for the digital superhero's aesthetic prosperity.

Digital superheroes provide us with the means to reflect on the conditions and capacities of digital visuality. As aesthetic figures, they do not only rely on the logics of the digital image, they also make it formally visible. D.N. Rodowick notes: "Having a modular structure composed of discrete elements whose values are highly variable, the powers of the digital image derive from its mutability and susceptibility to transformation and recombination."[41] Considering the superhero's tendency to shape-shifting formlessness as well as the variability of figural transformations it carries with it, digital superheroes might be seen as embodiments of digital media procedures. As such, they allow for aesthetic reconsiderations of what it means to be in pictures.

41 D. N. Rodowick, *The Virtual Life of Film* (Cambridge: Harvard University Press, 2007), 103.