Attraction, Simulation, Speculation
The Day After Tomorrow

The plot of *The Day After Tomorrow* (Roland Emmerich, 2004) can be summed up in a few words: because of a shift in the global climate, the world descends into ice and snow. Roland Emmerich's blockbuster is thus an early example of disaster films that connect their catastrophic scenarios with climate change.[1] Hollywood's historically long-held preference for the catastrophic finds a new target with this shift. With the spectacular staging of ecological disaster, cinema creates a perspective that extends to planetary annihilation: the destruction of the environment is not limited to certain points on the map but given a global dimension. The whole world is at stake, including all of those on and in it.

When it comes to images of the world, one must always ask about their modes of production and conditions of construction.[2] In this respect, Hollywood's questions about the world as a whole are also questions directed toward film itself. These questions become particularly relevant in times of transition and comprehensive change. One striking example of this is the phase of upheaval that marks the transition from cinema to the age of post-cinema. In the following, therefore, the subject of climate catastrophe[3] is of lesser con-

1 Further examples of climate disaster films include: *The Last Winter* (Larry Fessenden, 2006), *The Happening* (M. Night Shyamalan, 2008), *Take Shelter* (Jeff Nichols, 2011), *Snowpiercer* (Bong Joon-ho, 2013), and *Geostorm* (Dean Devlin, 2017).

2 A seminal work on this subject is: *Das Planetarische. Kultur – Technik – Medien im postglobalen Zeitalter*, ed. Ulrike Bergermann, Isabell Otto, and Gabriele Schabacher (Munich: Fink, 2010).

3 Cf. Selmin Kara, "Anthropocenema: Cinema in the Age of Mass Extinctions," in *Post-Cinema: Theorizing 21st-Century Film*, ed. Shane Denson and Julia Heyda (Falmer: Reframe Books, 2016), 753. On the relationship between cinema and climate disaster, see further: Ann E. Kaplan, *Climate Trauma: Foreseeing the Future in Dystopian Film and Fiction*

cern, even though the film in question begins with this premise. Rather, what is more decisive is the fact that with the question of climate change, cinema is also addressing and reflecting on its own image change.[4] In other words: Hollywood can not only associatively invoke the upheaval and change to which it itself is subjected, but also reflexively unfold it—also and especially when it comes to its own image processes.

The following will pursue this argument in three sections. The first section concerns the aesthetic attraction value of *The Day After Tomorrow* as a simultaneous display and concealment of its post-cinematic mode of production; the second deals with the model character of climate simulation as a mobile structural form, and the third discusses speculative processes of negotiation as vacillating image formations to which, on the one hand, the film is exposed, and which it, on the other hand, produces itself. They all converge in the observation that in the age of post-cinema, Hollywood again adjusts its prerequisites of the image and visualizes this process through filmic operations.

1. Attraction

The opening of *The Day After Tomorrow* features a remarkable attraction: the discovery of the digital ice world. At the beginning, the camera traverses the space to explore its full scope. It looks down from above while moving forward or, rather, flying forward. In doing this, the camera does not follow a single figure but covers the space without concentrating on a single object—it is solely focused on the landscape, whose exploration dominates the picture. The camera slowly floats over the Arctic Ocean, glides over ice floes, flies by snow-covered plateaus and icebergs, and finally expands into a broad view of

(New Brunswick: Rutgers University Press, 2016) as well as *Eco Culture: Disaster, Narrative, Discourse*, ed. Robert Bell and Robert Ficociello (Lanham: Lexington, 2018).

4 In this respect, one can assume that the question of a post-cinematic transformation has more to do with a process of adaptation rather than of erasure, as Francesco Casetti notes in light of the reshaping of media environmental conditions: "This diffusion gives movies new trajectories along which to circulate, new formats, new environments in which they can be enjoyed. It allows cinema to continue to live—and not only to survive—as it adapts to a new landscape." Francesco Casetti, "The Relocation of Cinema," in *Post-Cinema: Theorizing 21st-Century Film*, ed. Shane Denson and Julia Leyda (Falmer: Reframe Books, 2016), 571.

an icy Arctic desert. This diversity of movement, however, does not develop as a rapidly rhythmized interplay but as a calm flow, as a constant change of viewing and spatial relationships, as something that only comes into its own in continuity. The flexibility of the views and the mobility of perspective relations are constantly revealed anew. No sooner have we grasped an image than its boundaries expand; no sooner do we think we have comprehended a scene than it presents itself as a provisional one that is replaced by another. The film does not arrange all this in the form of classical montage, that is, as a series of fixed and clearly delimitable shots in which one element follows another. Rather, the transitions are always already contained in the image itself, in order to unfold there as a processual movement.

Drawing on Tom Gunning's influential definition of "cinema of attraction," Wanda Strauven explains: "The spectacular dimension of attraction grounds itself on the literal and physical sense of the term, namely 'the force that draws or sucks in.'"[5] Here in relation to cinematic imagery, this refers to spectacular effects that weaken the function of the narration or become completely detached from it. The attraction is neither beholden to the narrative nor subordinate to it but stands entirely for itself. Its goal is to sensually overwhelm the viewers, stimulate their pleasure in looking, and expose this stimulus.[6] Just as well, the expensively produced presentation of the artificial ice world in *The Day After Tomorrow* works with the attraction of showing but does not design it as an eruptive surprise or a singular moment of overwhelming but as a kind of show exercise for digital image processes.

At first, what is so remarkable about this continuously flowing opening sequence is the fact that it looks like one long shot, that is, without any visible cuts. In the age of post-cinema, this formal principle, however, is not

5 Wanda Strauven, "Introduction to an Attractive Concept," in *The Cinema of Attractions Reloaded*, ed. Wanda Strauven (Amsterdam: Amsterdam University Press, 2006), 18.

6 This aspect was repeatedly taken up in the debate on postclassical cinema and related to the attraction values of digital special effects. See Andrew Darley, *Visual Digital Culture: Surface Play and Spectacle in New Media Genres* (New York: Routledge, 2000); Scott Bukatman, *Matters of Gravity, Special Effects and Supermen in the 20th Century* (Durham: Duke University Press, 2003); Dick Tomasovic, "The Hollywood Cobweb: New Laws of Attraction," in *The Cinema of Attractions Reloaded*, ed. Wanda Strauven, 309–320 (Amsterdam: Amsterdam University Press, 2006); Kristen Whissel, *Spectacular Digital Effects: CGI and Contemporary Cinema* (Durham: Duke University Press, 2014); Julie Turnock, *Plastic Reality: Special Effects, Technology, and the Emergence of 1970s Blockbuster Aesthetics* (New York: Columbia University Press, 2015).

some stylistic outlier but has become an aesthetic convention. Whereas the sequence shot had once been an unusual deviation from the dominating logic of editing in analog cinema, long, uncut scenes are now far more widespread and recognizable as part of new visual dispositifs. Thus, the expansion of storage capacities as a result of digitalization is providing for the potential extension of recording lengths in films. Recording length is no longer limited by the material nature of the analog equipment but is extended, an extension that also yields new aesthetic formations: "Just as the cuts in classical cinema were motivated, in part, by the limits of how long filming could continue before the camera needed to be reloaded, the cuts in digital and HD cinema will evolve into a new grammar at least partially motivated by the fact, that, literally, a film can be shot in one take with no cuts."[7] In fact, the average smartphone user today can effortlessly implement this principle. The numerous uncut films found on YouTube, Facebook, Instagram, and other digital platforms show that the "long take," as an aesthetic phenomenon, has since become an obvious pattern of filmic production and reception. Another process that integrates the uncut visual experience into the experiential world of media is being driven by digital computer games. Their aesthetic focuses not on fragmented viewing arrangements but arises from the uninterrupted movement through the three-dimensional space, as Lev Manovich notes: "Many computer games also obey the aesthetics of continuity in that, in cinematic terms, they are single-takes. They have no cuts. From beginning to end, they present a single, continuous trajectory, through 3D space."[8] Guided and inspired by new image forms and visual experiences, cinema in the digital age does not remain what or how it once was. Under the influence of a comprehensive reorganization of perspectival understandings and viewing conditions through various media, it is rethinking its aesthetic possibilities and is thereby reformulating its methods of narration and expression. The long, uncut sequence that the Hollywood film *The Day After Tomorrow* so prominently places at its beginning can thus initially be read as a cinematographic form of adaptation of the spatiotemporal continuity and fluidity made possible and driven by digital media culture.

The characteristics of the visual appeal of a seemingly uncut digital sequence include the simultaneous concealing and displaying of the mechanisms that keep it going, as Dominik Maeder points out in the example of

7 Nicholas Rombes, *Cinema in the Digital Age* (London: Wallflower Press, 2009), 39.

8 Lev Manovich, *The Language of New Media* (Cambridge: MIT Press, 2001), 142–143.

Birdman or (The Unexpected Virtue of Ignorance) (Alejandro González Iñárritu, 2014)[9]: "Because we see that we do not see the cuts. The invisible is actually the visual's new attraction-driven value in the age of post-cinema."[10] This certainly also applies to *The Day After Tomorrow* but with far greater intensity. On the one hand, here too, the "post-production becomes a special effect at the point where it suppresses every effect of editing."[11] On the other hand, the gliding and flowing, which creates the impression of uninterrupted continuity, is also simultaneously combined and confronted with a significant superimposition, namely the overlay of the opening credits. Here, it is striking that the typeface does not stand out from the film like an interruption but that it is modeled into the visuality of the icy landscape. The script does not precede or follow the picture but merges into it. It does not scroll down from the top of the picture, nor does it appear as an even or uniform fade-in or fade-out, but it changes in a way that also changes the landscape. Thus, the first credits appear as a white script reflected in the deep blue of the water. The script does not appear flat on the screen but seems to float between the camera and the region being filmed: it does not appear to have two, but three, dimensions. Thus, this effect creates the impression that the script does not lie on top of the landscape but, rather, molds itself into it. This also becomes clear by the fact that it subjects itself to the conditions of the landscape and adapts to them. If the substrate is dark, the script becomes white; if the substrate is white, the script becomes dark. These patterns are complemented by the various aggregate states of the water shown onscreen: thus, the moving, flowing ocean water at the beginning provides the basis for the reflection of the script, whose reflection itself begins to move; and in this way, the solid state of the frozen water as ice and snow creates a substrate that appears far more even and also makes the script once again appear flatter. Furthermore,

9 In addition to this example, numerous other films can be named that use the long take as a preferred stylistic device, such as: *The Royal Tenenbaums* (Wes Anderson, 2002), *Panic Room* (David Fincher, 2002), *Minority Report* (Steven Spielberg, 2002), *Irréversible* (Gaspar Noé, 2002) *Elephant* (Gus Van Sant, 2003), *Oldboy* (Park Chan-wook, 2003), *Children of Men* (Alfonso Cuarón, 2006), *Gravity* (Alfonso Cuarón, 2013), or also the opening sequence of *Spectre* (Sam Mendes, 2015).

10 Dominik Maeder, "Birdman or (The Unexpected Virtue of Ignorance) (2014)," in *Filmische Moderne. 60 Fragmente*, ed. Oliver Fahle, Lisa Gotto, and Britta Neitzel (Bielefeld: transcript, 2019), 426.

11 Ibid.

the script is affected by the lighting conditions, which both persist in and emanate from the landscape. When, for example, the sun shines through from the right side of the frame, it also shines on the right end of the script overlay, which is thus illuminated at the corresponding angle.

Nevertheless, script is not part of the landscape but, rather, created by it, since it not only involves what one can see but also its presuppositions and the conditions of its manifestation. It is, therefore, not just embedded into the picture but into the process of de*piction* itself. This is already clear from the fact that the credits change with the orientation of the camera (in other words, the change of its positions and perspectives, such as when the camera is tilted). And ultimately, the function of the credits (the reason that they are there in the first place) moves within its own field of ambivalence. The beginning of the film is the beginning of a story the film is narrating and, at the same time, a reference to its own history. For by listing the film's credits, the opening titles tell the history of the film's production. The opening titles are thus not part of the fictional narrative of the film, although they introduce it or open the floodgates for it. The film announces that it is about to develop something—and it also communicates the conditions of this development. Here, it is the conditions of a digitally produced development that are particularly apparent, partly through the information contained in the credits (such as the announcement of the attraction of visual effects), but also through the effects themselves contained in the image that announces them. In the age of post-cinema, these elements are no longer meant to be separated. They are an entire complex that on the one hand makes itself inconspicuous-invisible and on the other hand displays itself as something artificially created.[12] In this simultaneity of the non-simultaneous, in the continuity of discontinuity, lies the new attraction quality of post-cinema.

12 Stressing this aspect, Angela Ndalianis points out: "Spectators are placed in an ambiguous relationship with the screen in that they are invited to be both immersed in and to understand the illusion (the magic) as a reality, and in the methods used to construct that illusion that ruptures its reality. […] The technology must be both disguised and visible." Cf. Angela Ndalianis, "Special Effects, Morphing Magic, and the 1990s Cinema of Attraction," in *Meta Morphing: Visual Transformation and the Culture of Quick-Change*, ed. Vivian Sobchack (Minneapolis: University of Minnesota Press, 2000), 262. See also in detail: Angela Ndalianis, *Neo-Baroque Aesthetics and Contemporary Entertainment* (Cambridge: MIT Press, 2004).

2. Simulation

What the opening sequence of *The Day After Tomorrow* presents as an attraction loaded with special effects is further intensified and reflected upon throughout the film because the computer-generated icy landscape is not only posited here as a product but also as a process. In other words: we see both the result and the construction principles of a model that has no reference in reality but is produced completely artificially.

The most salient example of this production process is the computer-generated climate model. The film is almost obsessively concerned with this image form, which it repeatedly brings into focus. Here, one can see simple graphical forms, such as progress curves of already collected data, but also moving, three-dimensional simulations that attempt to visualize the movements of the world's climate before they take place. The landscape's breadth and immeasurability are shown here as something that can be calculated, at least in the sense of the calculability of an image-producing process. Not only is the land mapped cartographically, but also the process of its change is made visually accessible. With this, a particular visualization technique is presented—and, with it, its own operation of acquisition and measurement of the landscape. Occasionally, the film puts it in the foreground so much so that everything else is lost from view, such as in a shot where the model loses its frame. The moment the edges of the computer disappear, the image of the computer screen fills up the movie screen: it seems to expand into the realm of the filmic image and cover it like a coating. Remarkably, however, the film confronts this image soon after with its reverse side, i.e. with the view of the CGI ice storm that turns the world into an icy wilderness within the film's narrative. It almost looks like the "Making Of" has become part of the main film: the view of the two-dimensional model on the computer (as a design grid) is followed by the fully animated three-dimensional graphic (as a VFX result).

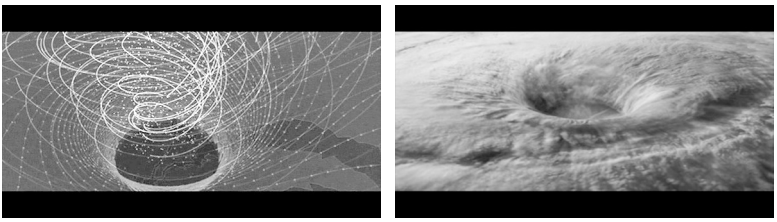

Fig. 4: The model on the computer is followed by a fully animated image of the icestorm.

In his engagement with the characteristics of post-cinema, Richard Grusin describes a transformation process that he identifies as an aestheticization of the animate. According to this approach, digital cinema is characterized by a softening of the dividing line between the static and the kinetic, and between the animated and the non-animated: "The digital cinema of interactions entails what I think of as an aesthetic of the animate, in which spectators or users feel or act as if the inanimate is animate, in which we simultaneously know that the mediated or the programmed are inanimate even while we behave as if they were animate."[13]

If it is true that the aesthetics of digital cinema are connected with a new economy of animation, then the visualization process of computer simulation plays a special role in this. In *The Day After Tomorrow*, this process is particularly noticeable when it comes to the representability of climate data, or more precisely: of their media-specific presentation, interpretation, and narration. In the process, the film, as a type of historical "review," first features analog methods of data preparation. These include large-format diagrams and maps on paper that are rolled up and out, spread out across tables, or hung up on walls. In a further step, the prepared data are presented on computer

13 Richard Grusin, "DVDs, Videogames, and the Cinema of Interactions," in *Post Cinema: Theorizing 21st-Century Film*, ed. Shane Denson and Julia Leyda (Falmer: Reframe Books, 2016), 68. Vivian Sobchack argues in a similar direction: "Although photographically verisimilar, the motion picture fragments, reorders, and synthesizes time and space as animation in a completely new 'cinematic' mode that finds no necessity in the objective teleo-logic of realism." Cf. Vivian Sobchack, "The Scene of the Screen: Envisioning Photographic, Cinematic, and Electronic 'Presence,'" in *Post Cinema: Theorizing 21st-Century Film*, ed. Shane Denson and Julia Leyda (Falmer: Reframe Books, 2016), 102.

monitors, again initially in still forms, i.e. mainly in static graph shapes as lists of figures and measurements. A unique dynamic, however, acquires the processing of data only at the very moment when it appears as an animated simulation. The characteristics of these computer-generated image processes essentially include a time-based factor, from which the illusion of fluid movement emerges, as Barbara Flückiger clarifies: "Computer simulations usually contain a dynamic, temporal component. Thus, the majority of them are rule-based reproductions of processes. For this reason, their results are often presented in the form of animations."[14]

It is this movement and mobility that grants the climate images a unique status, for their aesthetic mobility is connected to symbolic flexibility: the climate simulation indicates change, but at the same time provides a plurality of derivation possibilities. Furthermore, the conditions under which the climate simulation is constructed are, for their part, highly movable. As Claus Pias has pointed out, this has to do with "the fact that phenomena are simulated which are analytically (and also experimentally) difficult or even impossible to access (as is well known, validation is carried out using historical data of climate and weather history, which are incomplete and inhomogeneous). In any case, the adequacy of a single model cannot be proven, only demonstrated."[15] With this, the climate simulation moves into the realm of the fictional; at least, it is closer to this realm than that of the documentary. This can also be seen in the fact that its forms of representation are strongly informed by the vocabulary of fiction, such as when models are called "story lines" or future developments "scenarios." The narrative character of the climate simulation thus makes a central contribution to the mediation of the abstract, and even more: as a medial translation process, it makes it possible for data collection to become a visualization that is able to connect. Birgit Schneider notes: "The cultural achievement of visualization, in the case of the climate curve, is to provide a process of metamorphosis from an order of data and measurements into an order of images, preceded by a whole chain of additional translations and decisions. In the case of climate visualizations, the

14 Barbara Flückiger, *Visual Effects. Filmbilder aus dem Computer* (Marburg: Schüren, 2006), 279.

15 Claus Pias, "Klimasimulation," in *2°. Das Wetter, der Mensch und sein Klima*, ed. Petra Lutz and Thomas Macho (Göttingen: Wallstein, 2008), 114.

results are nothing less than 'world images.'"[16] In Hollywood, these types of "world images" are translated into a new type of image. The computer-generated visualization processes of cinema are genuinely new formations, i.e. they are less about the reproduction of already existing models, but more about an interrogation of their possibilities and limitations, as well as an aesthetic surpassing of the knowledge they offer. Birgit Schneider has demonstrated that in the history of research, "climate and climate change, as well as their causes […], could only be recognized, constructed and reified as research objects by means of visualization."[17] Schneider points out the fact that conventionalized forms of representation, such as infographics, were capable "only of evoking an extremely poor sensory fascination."[18] Hollywood knows how to fill the gap created by the non-experientiality of abstract visualizations of data with virtual sets of images that substitute what can only be conceived of abstractly with concrete forms of staging. As a result, Hollywood images gain their own credential status by charging the void of the unrepresentable with computer-generated simulations, which in turn feedback into the question of climate simulation.[19] Thus, for example, the documentary *An Inconvenient Truth* (Davis Guggenheim, 2006) solved the problem of the non-existent documentary image material of the melting polar ice caps by using the computer-generated opening sequence of *The Day After Tomorrow*: what is shown in the documentary as supposedly real footage of disappearing glaciers in Antarctica is nothing less than a product of the special effects laboratories of Hollywood.[20]

16 Birgit Schneider, "Ein Darstellungsproblem des klimatischen Wandels? Zur Analyse und Kritik wissenschaftlicher Expertenbilder und ihrer Grenzen," *kritische berichte* 3 (2010): 86. On the status of climate visualization as epistemic image, see further: Birgit Schneider, *Klimabilder. Eine Genealogie globaler Bildpolitiken von Klima und Klimawandel* (Berlin: Matthes und Seitz, 2018).

17 Schneider, "Ein Darstellungsproblem des klimatischen Wandels," 86.

18 Ibid., 84.

19 Elena Esposito has pointed out that the form of the "what if" does not leave reality unaffected. For, ultimately, "the orientation toward a fictional reality [is] part of the real reality. It is a factor that determines its future development." Cf. Elena Esposito, *Die Fiktion der wahrscheinlichen Realität* (Frankfurt am Main: Suhrkamp, 2007), 38.

20 Notably, however, there was hardly any controversy when it was discovered that the documentary used artificially produced Hollywood images as proof for climate change actually occurring—at least not in Hollywood. When asked about this obvious case of plagiarism in an interview for ABC News, visual effects supervisor for *The Day After Tomorrow*, Karen E. Goulekas, stated: "Yeah, that's our shot. That's a fully computer generated shot. There's nothing real in there. […] That was one hell of a shot. I think it's

Hollywood's simulations do not aim at reproducing what is already there or exactly given. Instead, they are oriented towards the artificially created as an extensible set of rules. This is also and especially true for the rule-based generation of computer simulations. In the case of *The Day After Tomorrow*, simulations were used and processed as factors of image composition. This applies, for example, to the digitally produced 3D environment, the particle animations, and the simulations of fluid and snow associated with them. The inherent media dynamics of the particle animations used here lie in the fact that they are system-based, i.e. they behave according to fixed rules. As procedural animations, they are no longer subjected to individual interventions but, rather, to the control of the program. Barbara Flückiger describes the resulting "frictions between the automatisms of simulation and the goals of cinematic representation"[21] as follows: "This tension between artistic intention and rule-based mechanisms characterizes the whole field of procedural systems. It is always a matter of making the most of the complexity offered by the system, but reshaping it to fit aesthetic and narrative goals."[22]

The achievement of Hollywood images lies in the fact that they align their simulations with aesthetic requirements. This is precisely where their productive character is to be found: they do not conceive of themselves as the reproduction of the already existing or as the recreation of a given schema. Rather, they work to remodel complex systems. Instead of invariably implementing the rules, Hollywood chooses to aesthetically appropriate the system and, thereby, to stretch and bend its rules.

3. Speculation

The Day After Tomorrow creates its own terrain of speculation. This first applies to its subject, namely the narrative of a possible climate catastrophe but, furthermore, also to its film-aesthetic staging procedures and its image-technological framework, that is, to the question of what digital images are and what they could become in the future. The film, however, does not just let both of these levels of speculation run side-by-side but presents them as

great that he used it." Cf. ABC News, "Al Gore Plagiarizes Clip from Hollywood Movie," YouTube Video, 1:17, April 30, 2008, https://www.youtube. com/watch?v=SnvJDwv3Z-w.

21 Flückiger, *Visual Effects*, 143.

22 Ibid., 144.

different aspects of one and the same exploration. This is precisely the speculative profit that *The Day After Tomorrow* holds out as a form of reflection on post-cinema.

On the level of the narrative, speculation unfolds first as a continual balancing act between competing forms of knowledge. Having returned from his Antarctic expedition, the climatologist Jack Hall presents his research at a UN climate conference in New Delhi, where the US Vice President is also present. While the researcher explains that the Gulf Stream could drastically cool due to the melting polar ice caps and, as a result, initiate a new ice age, the politician ignores the warnings of an imminent climate catastrophe and instead points out the instability of world markets (i.e. a related field of speculation). Here, speculation appears as a medium of openness, in which insecurity about what is and will be takes on both a narrative and aesthetic form. Even more so: with the example of infographics, charts, and graphs, we can see how speculation is manifested and materialized as a media technology. As a result, a type of knowledge production is developed that connects specialized prognostic methods with interpretive gestures. This can be seen very well, for example, in the combination of climate world maps with researchers and politicians commenting on them. Significantly, their explanations focus less on meteorological details and more on narrative mechanisms that lend the climate situation a special dramaturgy. This results in a mixing ratio of information dissemination, knowledge production, and image modulation. As prognostic methods, data visualizations drive speculation while at the same time attempting to repress interpretative insecurities through image-based forms of representation. However, the extent to which not only the climate but also the image processes serving its visualization are affected by instabilities becomes apparent a little later. In order to more exactly depict the expectations of future developments, the climatologist works together with a NASA meteorologist on an enlarged model, a global climate simulation. But what at first looks like an expansion of visual possibilities also always already holds the danger of limiting the view. Accordingly, the film does not only show the work on the model but also its collapse. Shortly before the model can bring its simulations to a complete view of a worldwide icy landscape, it breaks down. The computing capacity is too small to process the masses of data—the system has lost its capacity for visualization.

This oscillation between breakdown and collapse is the film's pivotal point, causing and propelling a specific form of pictorial reflection. This is not solely due to the fact that a global topic (climate change) is being negotiated by

global cinema (Hollywood) but has much more to do with how this takes place as an image-technical process and how this negotiation asserts itself as a post-cinematographic type of reflection. Effectively, the synthetic snowy landscape is even a particularly apt experimental space for this speculative operation. What distinguishes the snow in its motif-like quality—its unsolid form, its amorphic characteristics—is reflected through the conditions of what it makes appear. If the snow refers to something that can take on and then shed all forms, then this always affects the image processes of the film itself. This involves the interplay of limitation and delimitation, of concretion and abstraction, of constructing and dissolving forms—and, ultimately, the interrelationship of the sharpening and blurring of vision.

This can be seen in various examples. The opening sequence presents numerous possibilities for the creation of the perceptual sense of space, in particular, the transformability of the image space through virtual camera movement, lighting, and shifts in focus. While the film runs through all of these possibilities at its start, it then retreats from the illusion of spatial depth throughout the rest of its duration. There are images that appear to be completely flat and exclude any possibility of orientation. This loss of orientation occurs gradually. In some shots, it is initially still possible to distinguish between the foreground and background of the image—for example, in the shots of the weather station, which is gradually covered in snow. The more the snow spreads, however, the more the building seems to blend into the formless surroundings, finally disappearing into them. More and more, a diffuse, obscure blue stretches across the screen, letting it sink into haziness and opacity. Now, at best, some vague remnants of what previously structured the image can be discerned. All points of reference are swallowed up: above and below, right and left can no longer be distinguished from one another. One could rotate the image any which way—and still see the same thing. The whole thing looks like a freeze-frame, although this is not really the case, because the moving image continues to run uninterruptedly. Nevertheless, the film seems to stand still for a brief moment. Here, nothing seems to progress: the ordering power of orientation seems to be called into question, and the image seems to have surrendered to a total lack of directionality.

Furthermore, the film also shows the transition from an open to a closed view in those filmic methods that make it possible to take in the entire landscape at first but then increasingly forfeit this possibility. One example of this is the view through the car window. This view is a moving one, or more precisely, one that is set in motion by the vehicle's movement. Initially, we see this

process in its classical arrangement, whereby we can also see elements clouding the view (such as the sleet that impedes the unobstructed view through the window). Subsequently, this possibility of viewing the landscape is pushed to its limit. Within the snowstorm, the view to the outside loses its coordinates: it is subjected to an impenetrable white that remains unchanged even by movement. Now, panoramic vision is suspended; now, our view through the windshield is no longer a view into the depths but merely the view of what can no longer be seen in its entirety. This reduced vision is not only related to the extremely limited movement of the vehicle, but also to the fact that the car itself is constantly exposed to heavy snowfall. For example, the snow that has accumulated on the top of the car often slides down onto the windshield, reducing the field of vision and revealing only oddly shifted views. The passengers in the car lose their far-sightedness, which once again brings the problems of perspectival image orientation to light.

In *The Day After Tomorrow*, the interrelationship of form construction and form dissolution is expanded into a continuous process of turnover. Here, the point of condensation is the "blue screen," which is less a general motif of coldness, but rather the medial condition of the snowy landscape itself. We have already seen the blue screen in the images of the snowdrifts. However, it can be reconsidered when detached from the diegesis. One on the hand, it refers to the blue screen technique, a process that makes it possible to combine objects or people with different background images.[23] On the other hand, however, the blue screen is also known as the opposite of creation, namely the collapse of visualization possibilities, at least when dealing with Microsoft Windows operating systems. There, it can happen that every window suddenly disappears, in other words, that the system crashes. This crash is then followed by an error message, known colloquially by the name "BSoD" or "Blue Screen of Death." The OS's user interface is then completely replaced with a blue screen, with error information appearing in a white script.

In the blue screen, both generative and destructive forces are combined; here, something can be made to appear or disappear. This relationship reaches back into the studio or computational space from which it emerged, but it still has an even further reach. In the post-cinematic age, new film images and

23 To accomplish this, the object or person is filmed before a blue background. In order to then crop the object, a matte is used, which defines the visible and invisible areas of the image. Finally, the background film and the cropped foreground film are combined to create new image landscapes.

modes of perception arise—new technologies of production and reception to which cinema has to adapt. In this sense, cinema itself is bound up in a speculative process of transformation that, for its part, requires speculative explorations, as Shane Denson and Julia Leyda explain: "The speculative thinking demanded by such a situation is intimately tied to the notion of post-cinema as an ongoing, non-teleologically determined transition, in the very midst of which we find ourselves."[24] Elsewhere, Denson speaks of "the new speculative quality of post-cinema,"[25] a speculative capability that concerns cinema's fundamental openness to its own issues of negotiation. He then proposes "to see post-cinema neither in terms of everything that follows the invention of cinema […] nor as something that follows the demise of cinema […] but as a potential or speculative possibility inherent in cinema itself."[26]

The speculative field of post-cinema stands, on the one hand, for the obliteration of cinema as we know it (loss of indexicality, transformation of the dispositif) and, on the other hand, for the creation of new image spaces that are not yet known to us (digitally processed and microtemporally generated image forms that are, as it were, below our threshold of perception, i.e. "post-perceptual"[27]). *The Day After Tomorrow* presents the aesthetic questions connected to these changes like a speculative test run. Its questions revolve around the relationship of form and solidity, of constructing and dismantling, of pattern formation and pattern loss. They are questions that stand for turnover and turnaround, for the uncertain and the unfinished. In this way, Hollywood cinema not only follows a comprehensive transformation of itself but also makes it conscious and recognizable. In a speculative sense, this means that *The Day After Tomorrow* points far beyond the medial realm of experience of its time of origin. This film is not about marking a fixed frame of reference, but about transgressing it. For it is only by refraining from a clearly constituted mediality that one can foresee its reshaping and expansion.

24 Shane Denson and Julia Leyda, "Perspectives on Post-Cinema: An Introduction," in *Post-Cinema: Theorizing the 21st-Century Film*, ed. Shane Denson and Julia Leyda (Falmer: Reframe Books, 2016), 6.

25 Shane Denson, "Speculation, Transition, and the Passing of Post-Cinema," *Cinéma & Cie* 14, no. 26–27 (2016): 28.

26 Ibid.

27 Ibid., 22.