Right here, Right now
Evolution, Animation, and Music Video

How does one actually narrate the history of the media? And what role do the media of history play in this? These questions have recently warranted increased attention. In the course of the debate on the relationship between media and historicity, various models and concepts arise, two of which I will introduce and consider here: evolution and animation.

The term "evolution" has been repeatedly introduced into the discussion on conceptual approaches to media historiography. The media-theoretical adoption of a term whose dissemination can be traced to the description and explanation of a biological system may be surprising at first; its usage, however, can be understood primarily as a possibility of differentiation. This is because the concept of evolution comes into focus precisely where it concerns the demarcation of ideas about revolution. While the concept of evolution connotes a gradual, step-by-step development, the term revolution refers to a radical change that does not continue to build on what already exists but rather departs from it completely or to a large extent and replaces it with something new. Lorenz Engell points out an important premise of evolutionary models in media theory: "Whenever one speaks of evolution, one presupposes that there is some sort of transformation."[1] What is crucial here, according to Engell, is the fact that this transformation is a singular change that neither reoccurs in the same form nor is without consequences. One should further note that, in contrast to the revolutionary moment, this transformation preserves and retains what has been changed: it is not given up or even resolved but perpetuated as something transformed. Engell goes on to establish the conditions under which these forms of transformation

1 Lorenz Engell, "Die genetische Funktion des Historischen in der Geschichte der Bildmedien," in *Archiv für Mediengeschichte* 1 (2001): 34.

can be understood as evolution: "A mere transformation, with all of its forms of crystallization and description, becomes solidified into evolution when a chain of transformative steps, a sequence, is formed."[2] Here, one must consider the overriding, overarching structure of evolution: "Unlike with a transformation, the point-by-point comparison of before and after no longer suffices to establish and formulate a line of development."[3] Rather, it depends on an understanding of the evolutionary process as overall complex from which specific stadia cannot be detached or considered as isolated parts. The epistemological potential of the evolutionary figure must be understood in a similar way, one oriented more toward the structure and dynamics of the developmental process as a whole rather than toward the before-and-after of the individual.

In conjunction with this understanding of media evolution, the second concept, that of animation, comes to the fore. This term relates less to a generic conceptual figure but, rather, points to a specific field, namely that of digital image processing. Almuth Hoberg proposes the following definition: "Computer animation creates artificial image worlds from computational data, whereby the simulation of physicality […] is achieved in addition to spatial and perspective representation."[4] What is noticeable about this (as in other) definitions is the formulation of a decidedly artificial type of production, a recourse to the possibility of animation "to synthesize bodies."[5] This approach can certainly be characterized as a widespread one but not as the only possible one. Because, as Paul Wells explains: "Animation as an art, an approach, an aesthetic and an application informs many aspects of visual culture […]. Like all art forms, it has a history, but in its particular case there are many histories which are still being researched and reclaimed."[6] One of these histories leads back to a pre-form of animation that, exactly like the concept of evolution, relates to a biological model of explanation. It involves the model of grid deformation developed by D'Arcy Wentworth Thompson that I would like to present as the background for the rasterization of the digital image.

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2 Ibid., 36.

3 Ibid.

4 Almuth Hoberg, "Digitalisierung und Postmoderne im Mainstream-Kino. Computereffekte verändern das klassische Erzählkino," in *Oberflächenrausch. Postmoderne und Postklassik im Kino der 90er Jahre*, ed. Jens Eder (Münster: LIT, 2002), 196.

5 Ibid.

6 Paul Wells, *Animation: Genre and Authorship* (London: Wallflower, 2002), 1.

D'Arcy Wentworth Thompson's *On Growth and Form*, published for the first time in 1917, belongs to the field of biological morphogenesis; it explains the relatedness of species by changes in their form. What is remarkable is the text's orientation toward mathematical procedures, such as geometry: for example, Thompson lays an animal skull on a grid in order to explain a species' development by the change in angles and spacings within a system of coordinates. Thompson's approach is still influential more than 100 years after its first publication. This is indicated not only by a German reprint of his work in 2006[7] but also by a comparison of the Thompsonian network of coordinates with grid arrangements used in digital image processing. Therefore, it is not surprising that the School of Mathematics and Statistics at the University of St. Andrews in Scotland uses Thompson's depiction of the transformation of *Argyropelecus olfersii* in the *Sternoptyx diaphana*[8] as its model for a computer animation[9]: in fact, Thompson's grid images look like templates for the animation technology of *morphing*. In terms of the aforementioned media theory of evolution, digital animation can be understood as a mode that does not simply appear suddenly and abruptly but is a part of an overarching developmental trajectory. This development encompasses biological-mathematical notions of form construction (such as that of Thompson), instrument-based technologies (such as the emergence of calculators and computers), but also, further, discourses on the relation of animate/inanimate and on the relation of analog/digital. Here, particular attention must be paid to the reciprocal relationship between development and media; this therefore refers to a development that, on the one hand, is completed through media and which can only be grasped through the media of its representation and, on the other hand, sets in motion the consequences for those same media and, thereby, allows media infrastructures to emerge.

This close connection between evolutionary processes and media development becomes especially evident where its execution is manifested within media practices. The music video for Fatboy Slim's "Right Here, Right Now" (Hammer & Tongs, 1999) will serve as an example of this connection. In the

7 D'Arcy Wentworth Thompson, *Über Wachstum und Form* (Frankfurt am Main: Eichborn, 2006).

8 This has to do with two fish species whose relation is shown by a thrust model at a 70° angle.

9 "Using a computer to visualise change in biological organisms," *MacTutor*, University of St Andrews. https://mathshistory.st-andrews.ac.uk/Darcy/darcy/.

music video, one sees the development of all life on Earth—presented as a rapid history of evolution in 3 minutes and 30 seconds. The opening contains a text display giving the setting as "350 Billion Years Ago" shown before a dark, apparently unlimited space. This is followed by a trip through the atmosphere, complete with flashes of lightning, through which the viewer is then submerged in a dark blue liquid. Here, one can see protozoa from whose contours various marine animals grow. Subsequently, the marine animal jumps onto land and becomes a reptile; shortly after this, the reptile leaves the ground and climbs a tree. There, it transforms into an ape, who finally completes the big developmental leap to a human being.

In the process, multiple types of movement come into view. First, it is notable that the developmental movements of different species is supplemented and condensed by numerous formal-stylistic movements: at the very beginning, the camera performs a rotating movement in order to immerse itself in the action as if delving through a vortex; then, it moves from left to right (and briefly also from right to left), from top to bottom (and briefly also, again, from the bottom to the top), it focuses the change taking place through a rapid zoom, then moves back again shortly thereafter in order to expand the field of view and switch from an extreme close-up to an extreme long shot. These camera movements are ultimately augmented by severe whip pans and shaky image stretches. Another continuous, fixed movement can be found in the superimposed time code on the right side of the screen, which keeps time as a type of countdown within the picture. Already here, it is obvious that the video does not represent a monodirectional progression but that it works with movements that are counter-rotating. This is evinced by further examples: first, it seems as if the video presents the typical notion of the passage of time. Chronology is presented, on the first impression, as a flow of time, as the passage of time on a time line, as an unstoppable progression, as a continuous duration. At the same time, the image undermines this conception with various methods of time manipulation: it presents both time-lapses (the highly dynamic swimming motions of the fish) and slow-motion (the ape's slowed down jump) and thereby implies a reflexive commentary. Compressing and expanding here can be understood as methods that negotiate the relation to time specifically, that do not visualize time as a universal basic structure but, rather, as an element that can be shifted and reshaped. Andreas Becker stresses: "With time-lapse and slow-motion methods, the potential for different perspectives is opened up to one's perception. With perspectivization, time is pluralized, it confounds the usual models of classification and radi-

cally expands the spectrum of the perceptible."[10] In the context of media evolution, this, too, is reminiscent of the forerunners of image animation. For, ultimately, the initial attempts at time manipulation through recording technology were employed for the sake of scientific inquiries—more precisely: for the purpose of investigating correlations of zoology, biology, and physiology. Here one could name Eadweard Muybridge's photographic studies of animal locomotion as well as botanist Wilhelm Pfeffer's time-lapse experiments to illustrate the growth of tulips. What connects these practices is their ability to construct concepts and models through media-technical operations—this applies to both the first photographic studies of motion and to digital animation techniques.

These associations are taken up in the music video by presenting again movements that oppose each other. This applies to the seemingly continuous movement from left to right, which seems to make up the basic direction of the action. Even this movement seems familiar. It implies a forward motion and, hence, is linked to the ideas of augmentation and differentiation—after all, we read from left to right, and scanning patterns in television systems proceed much the same way. We are used to inferring meaning by increasing complexity from left to right. The progression of evolutionary events in the music video suggests a similar increase in complexity. Here, too, the transformation from protozoon to human being takes place from left to right—with a few significant deviations. This includes, for example, the aforementioned camera movement from right to left but also the interruption of the movement. What is striking, for example, are various objects standing still in the picture (such as the static figure of the burger vendor who acts like a still image within the moving image) but also the deceleration of the developmental movement. As soon as the evolution has reached the stage of *Homo sapiens*, the time code on the right side of the screen noticeably slows down, and the running of the species itself slowly decelerates its tempo. Whereas the previously shown creatures were moving ahead at a rapid pace, the human being, now a fat, sweaty creature, finally remains standing, sinks exhausted on a bench, and performs yet another change of direction at the end: he turns his face toward the viewer and is now, unlike the other species before him, shown frontally rather than in a profile. In this segment, the references to opposing directions of impact accumulate. Although man is presented as the crown of

10 Andreas Becker, *Perspektiven einer anderen Natur. Zur Geschichte und Theorie der filmischen Zeitraffung und Zeitdehnung* (Bielefeld: transcript, 2004), 21.

creation, as it were, at the end of a continuous developmental process, he appears incredibly inert, and the writing on his T-shirt ("I'm #1—So why try harder") proves to be a deceiving, for man is not first but last—at least the last figure shown in the video.

However, this only seemingly marks an end point; when viewed more closely, the deformation of the body shown in the video is not a consequence of evolution but, rather, its prerequisite. This message is supported not in the least by the music video's aesthetics, which makes use of a technique of fluidly constructing and dissolving forms throughout, namely *morphing*, and which thus allows the evolutionary development of forms to come into its own in the digital medium. What at first appears to be a stable form then becomes unstable again, in the sense that it is depicted as something variable and malleable. In every form there is a further form, whereby morphing conceals the moment of transition and thus visualizes metamorphosis and deformation as a fluid process. However, the digital here seems to be addressed not only in its relation to the spatial conception of the form but also in relation to time. With the digital organization of data, the conception of linearity is broken most clearly:

> In the transformation of analog image information into digital, the individual images are dissolved into abstract data that are no longer organized temporally, but spatially. Succession is dissolved into simultaneity, in the radical sense in which the virtual always 'exists' simultaneously. The function of montage, which already transports mobility and simultaneity, is driven further to a dissolution of the material into a stream of temporally updatable image particles with which virtual image sequences can be generated.[11]

The music video exemplifies this situation precisely by the fact that (contrary to conventional music video aesthetics) it does not feature a single visible cut—in the digital succession of images, there is no longer any question of "montage". In this sense, the title of the song, which the video visually choreographs, can be understood as a description of the nature of the digital, as the simultaneity of "here" and "now."

11 Hoberg, "Digitalisierung und Postmoderne im Mainstream-Kino," 204.

Lorenz Engell has pointed out the fact that, in the digital image, the "blurring of the relationships between images is taken into in the image itself";[12] that is, the fact that the digital realm stands for a processual unfolding of the image:

> A digital image is nothing other than a potential for perpetual transformation. It can no longer be detached from the process of its generation, manipulation, alteration, and so on. Digital images, therefore, unfold their peculiar power, their special characteristic that distinguishes them from all other images, less as images than as processes. Digital or digitized images are processable and can be submitted to processes of manipulation and dissemination.[13]

In the digital sphere, there is no longer a singular, fixed, unchangeable image; rather, there is a collection of data that can be accessed and updated at any time. This is where the self-reflexive potential of the digital image proves to be a salient illustration of the model of media evolution. Instead of linear chronology, evolution represents constant change; instead of a rapid break, it points to a gradual development, interdependencies, and relational structures.

The music video for "Right Here, Right Now" presents a visual form of progression that not only visualizes a satire of creation history but also implies a commentary on its own media evolution by means of reflecting on its digital imagery. For the movement to "right here" and "right now", which the clip attempts to trace, is a medially formed and synthetically generated: it is staged as a sequence of various stations whose transitional moments are concealed and manipulated by technical processes, and which thus does not appear as a linear progression, but rather as an interwoven structure of stages. The artificial image world generated by computer animation seems to reflect its own progress here: on the one hand, its potential to develop its own form and, on the other hand, its requirement that this form be converted into yet another form. In this sense, the digital can also be understood as the image of shapelessness, since, as Lorenz Engell states, "[V]isual data formations always bear the prerequisite and concurrent mark of their could-be-different-

12 Lorenz Engell, "Die Liquidation des Intervalls. Zur Entstehung des digitalen Bildes aus Zwischenraum und Zwischenzeit," in *Ausfahrt nach Babylon. Essais und Vorträge zur Kritik der Medienkultur*, ed. Lorenz Engell (Weimar: VDG, 2000), 197.

13 Ibid., 197–198.

ness."[14] This addresses a form of contingency that affects not only the digital but also the mode of medial change as well as its various representations and narratives—and ultimately also the essence of evolution and animation.

14 Ibid., 205.