Stephen Prince: Digital Visual Effects in Cinema. The Seduction of Reality

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Stephen Prince's new book is both a contribution to the growing literature on digital culture and an admirable attempt to sum up its achievements and also to calm the level of anxiety that digital techniques have inspired in the critical community. Although this technology was initiated in the 1970s, the pace of its acceleration has been at full tilt since the early 1990s releases of *Terminator II* (1991) and *Jurassic Park* (1993). Prince's topic is limited to feature length movies, typically Hollywood higher budget movies. This limitation is necessary to properly organize the book and within this limitation. Prince is ecumenical in discussing films ranging across action, fantasy, dramas, animation and other genres. All these genres, including full length animation, are defined by their relationship to narrative realism.

Although the digital revolution is as fundamental and pervasive as the change to synchronized sound eighty years ago, it is different from that change as well as the move to color and wide screen, in being both silent and invisible. Indeed the audience may well wonder if it is a change at all since, so far, digital techniques emulate chemical photo-realism and are considered successful to the extent that they hide their own pixilated origins. But we cannot ignore it: critical philosophy is

committed to the idea that even hidden techniques alter expressive meanings. Film academics cannot accept industry assurances that everything in ‚movieland' is the same except that effects are getting better. The continuous infiltration of digital into the filmic in recent years creates the problem of when does the sheer quantity of digital enhancements tip over into a ‚quality of film' issue. Prince takes the question of ‚what are digital effects doing to our perception of realism' as one of his motivating problems. This is a theme that came out of his influential article "True Lies." (Stephen Prince: True Lies: Perceptual Realism, Digital Images and Film Theory. In: *Film Quarterly* 49/2 (2006). S.27–37) In the earlier article he developed the notion of perceptual realism as the measure of digital effects. The current book is an attempt to respond to those who continue to dispute perceptual realism.

The book features a useful survey of the history of digital technology. Individual chapters are about selected production departments, such as lighting, performance and art directing, that form the codes of realism that anchor the visual aspect of classic Hollywood storytelling. Prince describes the astonishing and somewhat ‚Frankensteinian lengths' to which computer whizzes have gone to convince the viewing public that the digital image is still a photographic trace. There are breathtaking descriptions in the lighting section to global illumination algorithms, subsurface scattering and the computational invention of

„gummi lights". (S.66-69) The last is a mathematical formula for a virtual light that „conveys directional transmission through an object rather than by scattering". (S.69) Animators found this necessary for handling surfaces underwater in *Finding Nemo* (2003). Similar heroism occurred when other modelers recorded actual mirror balls to create the mathematics of high dynamic range imaging (HDRi). (Vgl. S.194) Even if the reader understands the older principals of cinematography, there is only a ‚gee whiz' response, because it is so hard to comprehend these algorithms. Prince makes a valiant effort to describe the techniques but he is hampered by the decision to not include figures and illustrations in the book. This would have been of great help if the book was to fulfill the task of describing the various techniques.

But other more technical books will fulfill the explanation task. Here the argument is that digital visual effects adhere to standard Hollywood codes of realism. Prince goes so far as to borrow the film director James Cameron's phrase „the seduction of reality" for the subtitle of the book. While it is accepted that a Hollywood director who already has God issues might think his digital work can seduce reality, such hyperbole confuses the rigorous thought that is needed in separating issues of representation and realism. It is a surprising move for an academic and betrays a certain anxiety. As Prince himself admits the spirit of Andre Bazin looms over the book. (Vgl. S.224) This hovering is the source of the anxiety. In the 1950s, Bazin famously used the photographic ontology of film to

champion stylistic uses of deep focus and shots of long duration. This is to say that he thought the power of film derived from its photorealism, which represents the openness of the actual world to some degree. This is in contrast to the over-determining finger pointing ability that editing and selective focus gives to the filmmaker. Currently, digital skeptics have been quick to cite Bazin's theory to question the new methods and therefore Prince treats Bazin as the disapproving father that he tries to reconcile to the new digital effects.

The primary question is why is Prince so concerned about reconciling Bazin to the digital? There are several consider-ations. I think that one that should not be ignored is D.N. Rodowick's book *The Virtual Life of Film* (Cambridge MA 2007). Rodowick argues against Prince's championing of perceptual real-ity. Rodowick's critique is based on the philosophical/phenomenological status of photography, in particular the theo-ries of Stanley Cavell. Although Prince is moved to respond, he does so by try-ing to reconcile the more pragmatic view of Bazin to the new technology, than by answering the Rodowick/Cavell critique at length.

In order to reconcile Bazin the father, Prince notes that digital effects have effectively increased the opportuni-ties for long duration shots and deeper focus because the digital recreation of the world overcomes the previous limita-tions of photographic equipment. Lon-ger duration comes about because digital effects are so realistic that the shot can be held longer without the audience

perceiving the artifice of the effect and because the transitions (such as from man to werewolf) can be presented in its entirety to the camera, eliminating the need for cutting to a reaction shot. Although digital techniques has forced actors to perform on a bare set against an empty green screen without props or costumes, some actors have actually claimed that the integrity of their per-formances have been enhanced by the ability to perform the entire scene, in one shot (the various camera angles are determined by the computer afterwards in post production). Therefore, on two counts, the demands of the father are satisfied.

Prince also addresses indexicality. Indexical is the type of sign that bears the direct trace of the object the sign represents (as opposed to two other types of signs as formulated by the American philosopher Charles Peirce). According to Peirce photographs are just as indexical of the objects pho-tographed as footprints are of people walking in the sand. Of course the digi-tal manipulation of the image seems to undermine its claim to be a direct trace. Prince considers this and is will-ing to argue that the digital revolution has actually increased indexical imag-ery. He cites as evidence two histori-cal films that used digital techniques to trace actual photographs of the era into the digital composites of the back-grounds.

Although plausible, these examples rely too much on the audience's accep-tance of the results. His pragmatism side-steps Rodowick's more categorical

challenge to perceptual reality. I doubt that even Bazin would be impressed, not because he would not accept Prince's facts but because he would remain indifferent to Prince's goals in making these arguments. Bazin's original remarks about film style were to champion the humanism of films made by Robert Bresson, Jean Renoir and others. Prince does not seem to be advocating any particular type of filmmaking. If anything the American professor wants to reassure his readers that all types of filmmaking have benefited from the digital revolution and that the great films are still emerging. This is a theme that is in line with other film scholars (such as David Bordwell and Tom Gunning) emphasizing the continuities of mainstream filmmaking despite the various current innovations.

But these continuities are already debatable remnants from another time. Indeed if anything they are the shells of old media that new media always inhabit before the new forms emerge or are recognized. Bolter and Grusin have taken this original insight from McLuhan and have named this capacity of replacing the old as remediation. (Vgl. Jay David Bolter, Richard Grusin: *Remediation: Understanding New Media*. Cambridge, MA 1998).

In this moment the digital techniques are replicating the photochemical realism that we are familiar with, but already with the difference that the replication is contrived right down to mathematical computations for film grain, light flare and lens dis-

tortions are simulating the real thing. Prince's book effectively documents that the digital creators are doing this, but the author is unwilling to acknowledge that the enhancement of photo-realism is most likely a passing moment. Soon digital techniques will give rise to its own codes of mimesis. Prince has given us a great service by researching the details that may allow us to see the trends that have already emerged in digital cinema. Obviously the great almost unlimited freedom digital imagery gives to the filmmakers' imagination has been in a mutually sustaining relationship with the revival of the fantasy genres and the spectacle aspect of realistic stories. On a more fine grain level, we see a decline in the use of establishing shots because the digital effect can put higher levels of information into tighter shots. In a contrasting direction reaction shots may be declining since digital effects are more visually interesting than the reactions to these effects. Metamorphoses are being favored over montages. Prince has contributed to both sides of the debate over the digital revolution.

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