Anne Friedberg, THE VIRTUAL WINDOW: FROM ALBERTI TO MICROSOFT. Cambridge: MIT Press, 2006, xii + 357 pp., $34.95 (cloth). 

by Carl Plantinga
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The core argument of Anne Friedberg’s latest book, The Virtual Window: From Alberti to Microsoft, is that in the last two decades, with “digital imaging technologies and new technologies of display,” the media window began to feature “multiple perspectives within a single frame” (3). Thus the visual system of frames within frames and multiple simultaneous perspectives has become a new “visual vernacular,” an “important paradigm shift in visual address” that “requires new descriptors for its fractured, multiple, simultaneous, time-shiftable sense of space and time” (3). Friedberg’s argument thus concludes, but numerous paths meander along the way, most of which extend much further into the past than the last two decades, and are mixed together in a rhizome-like skein to accommodate the “intermedial complexity of technological development” (4).

Although there is little primary research here, one can nonetheless say that the author has done her homework. Ninety-nine of the 357 pages of The Virtual Window comprise the book’s compendium of 794 footnotes. One might say that the book is most successful as a pastiche of accounts of technological developments in media, together with quotes by and reports on the positions of scholars, artists, inventors, and observers—from Leon Batista Alberti to Bill Gates—especially on the nature and implications of windows, but also on Renaissance perspective, the camera obscura, magic lanterns, frames, glass, screens, projectors, computers and computer interfaces—indeed, on what might be called the visual architecture of media since the Renaissance. I say “pastiche” rather than “history” because although the accounts are provided in loose chronological order, Friedberg does not provide much synthesis and makes little attempt to link the historical bric-a-brac by an über-narrative. The diverse and exhaustively documented historical accounts, quotations, questionings, and observations are loosely related to an examination of metaphors about “windows” as portals to immaterial, virtual spaces.

Friedberg’s book has generally been received favorably, winning the 2007 Phi Kappa Phi Faculty Recognition Award at the University of Southern California and Honorable Mention for the Katherine Singer Kovacs Book Award presented by the Society for Cinema and Media Studies. The Virtual Window extends and redirects discussions Friedberg began in earlier work, Window Shopping: Cinema and the Postmodern (1994). There she proposes that postmodernity is characterized by the “mobilized virtual gaze” of the cinema, a gaze that diminishes the ability of the mobilized virtual gazer (all gazers?) to remember the past. Friedberg advocates the replacement of the Foucauldian
prison guard in the panopticon, wielding an immobile all-encompassing eye of surveillance, with the Baudelairean flâneur as the model for the postmodern subject’s relation to the visible world. The postmodern condition, both characterized and influenced by the cinema, is to be a kind of distracted voyeurshopper, wandering through the puzzling cornucopia of images, sounds, and text that permeate the urban environment. Friedberg’s postmodern sensibility accounts for her rejection of meta-narratives, but one wants to ask whether the presiding metaphors characteristic of this work (e.g., the viewer as either prison guard or flâneur) escape charges of reductionism. That is, if metanarratives are thought to simplify the complex skein of history, one suspects that the employment of presiding metaphors may have a similar liability, because it characterizes the “subject” as being of a single type or sensibility—dare we say an essence.

The reader of The Virtual Window, like the postmodern subject, becomes a kind of readerly flâneur, picking through this mingling of ingredients, including historical incidents, developments, quotations, and sundry curiosities (including fabulous illustrations—advertisements, frame enlargements, drawings, and photographs) that constitute this mixed salad of a book. The Virtual Window is divided into five chapters, between each of which rests a “Lens,” consisting of a brief rumination on some famous thinker’s cogitation on the notion of the window, frame, screen, or “the virtual.” Lens I: “Descartes’s Window,” for example, relates Descartes’s skepticism about the human capacity to gain knowledge through the senses to his interest in optics, perspective, painting, telescopes, and mirrors. Friedberg also relishes the “apocryphal” (53) account according to which Descartes “traveled with a life-sized female automaton named after his illegitimate daughter Francine” (53). Friedberg suggests that this admittedly dubious story nonetheless “seems to extend Descartes’s theory of animals as soulless nonthinkers to women and to conflate the body of woman with the machine” (53). Apparently the story is too good not to be true.

The conceptual apparati of the book are sometimes muddled, and more is promised than delivered. It is worth dwelling on one definition at this point, if only because it is foundational and also characteristic of the kinds of conceptual analyses one finds in this book. One of Friedberg’s major claims is that the “virtual” element of the “virtual window”—in other words, virtuality—existed before the digital age in painterly, photographic, cinematic, and televisual forms. Friedberg charts usage of the term “virtual” by Bergson (in one of the “Lenses”), Deleuze, information theorist N. Katherine Hayles, art critic Oliver Grau, and others.

In this maze of quotations and positions, however, it is difficult to understand what Friedberg herself has in mind by “virtual.” The term “virtual,” she writes, “serves to distinguish between any representation or appearance . . .
that appears ‘functionally or effectively but not formally’ of the same materiality as what it represents” (11). The missing term of comparison here—what the virtual image is distinguished from—is apparently the “non-virtual” image. But this formulation raises questions. What does it mean for something to appear functionally and effectively, but not formally, to be of some materiality or other? This is not explained, but it should be. Also, read the above quotation once more, and then notice that the phrase “of the same materiality” in this formulation is rather vague. Does this mean that a virtual image of a tree, for example, appears to be made of wood (since the virtual image of a tree, by definition, would appear to be of the tree’s “materiality”?). Probably not. Or perhaps it means that the virtual image of a tree looks like a tree? This would be something like saying that the spectator of a virtual image of a tree is “appeared to ‘treely.’” In that case, the definition makes any representational image plausibly “virtual.” But if virtuality means, simply, “representational,” then the claim that virtuality existed before the digital age would be obvious, and certainly not a foundational claim in an academic book. My best guess is that “virtual,” for Friedberg, means “perceptually realistic,” a perceptually realistic image being one that looks like an example of what it represents. To couch this in terms that escape the appearance of “naive realism,” however, is apparently quite difficult. (It should also be noted that in many art critical circles, any realist theory is by definition naive.)

Friedberg goes on to say, “Virtual images have a materiality and a reality but of a different kind [than non-virtual images?], a second-order materiality, liminally immaterial” (11). Using the word “liminally” here implies a kind of threshold between the material and immaterial. But what does it mean to speak of the materiality of images? What is the material of which images are made? I’m not sure. And what is secondary materiality? Is it the imagination of material objects? Are the imaginings of a viewer or spectator actually material? She continues, “The terms ‘original’ and ‘copy’ will not apply here, because the virtuality of the image does not imply direct mimesis” (11). This last claim for virtuality fits my contention that virtuality, for Friedberg, means “perceptually realistic.” Thus a perceptually realistic image, a virtual image, need not imitate or copy any particular scene or thing, but can merely replicate the kinds of real-world visual cues perceivers generally have in the world—visual cues for light and shading, texture, color, shape, and mass. One can have a perceptually realistic image of a unicorn or an elf, even though (as far as I know) no such things exist. Perceptual realism, obviously enough, does in fact predate the digital “revolution.”

Perhaps Friedberg would respond that attempts to specify the meaning of her terminology misunderstands the function of metaphor. As she writes, many of the key terms in her book “operate in both metaphoric and literal registers, and their meanings frequently slip between the dual functions of philo-
sophical paradigm and representational device” (13). In this reviewer’s opinion, however, such slippage is often confusing rather than illuminating, and the best element of this book is not the author’s theoretical argument, but rather the multifarious collection of engaging incidents, quotes, positions, and illustrations she has gathered from diverse sources.

Some have praised Friedberg for correcting entrenched fallacies, and the attempt to do so is illustrated in Chapter 1, “The Window,” where Friedberg claims that for Alberti, the window did not imply transparency, but rather emphasized the framing of a view. Windows, for Alberti, were translucent, not transparent. But whether transparent or not, the “single and immobile eye” of perspective, as Erwin Panovsky claimed, “enacted a fiction, a visuality at odds with vision” because it assumed a single monocular vantage point—a “Cyclopean” viewer—rather than the binocular viewpoint of humans fortunate enough to have two eyes placed at some distance from each other. Later Friedberg also questions another common assumption, the unthinking equation of Albertian linear perspective with the Cartesian subject.

Chapter 2, “The Frame,” contains wide-ranging discussions: of the camera obscura, the magic lantern, Karl Marx and Friedrich Engels’s use of the camera obscura as metaphor for the workings of ideology, Jean-Louis Baudry on ideology and the cinema apparatus, Kaja Silverman, David Bordwell, Eadweard Muybridge, E.T. Marey, and Thomas Edison’s kinetoscope. As Friedberg claims, an important development in the cinema was a separation of the time of recording and the time of projection: “As the time of filming was shifted onto the time of the film’s projection, the cinematic apparatus enacted a tesseract[?] as a time machine of inherent delay and playback” (93). The subsequent three chapters describe the ways that windows have been incorporated into the architectural features of buildings, arguments about the shape of windows and Eisenstein’s playful address to the Academy of Motion Picture Arts and Sciences in which he advocated a tall and manly aspect ratio for the cinema screen (129–30). We learn about virtual windows in Things to Come (1936) and Metropolis (1926), the history of screens, and how glass is made. The final chapter gets to computers, computer interfaces, and the use of windows and frames within windows and frames. Friedberg also traces the development of computers and the “window” metaphor, digital split screen imagery in the cinema, and rise of the “split attention” viewer. The single frame, Friedberg emphasizes, has been replaced by multiple frames within frames.

How is the reader to make sense of all of this? The book’s front jacket reads, “As we spend more and more of our time staring at the screens of movies, televisions, computers, and handheld devices—‘windows’ full of moving images, texts, and icons—how the world is framed has become as important as what is in the frame.” But is this rather remarkable claim true? And
how would we know? Virtual Windows provides intimations of significant ideological effects, suggestions of altered sensoria, and mentions of radically new epistemes wrought by changing technological prostheses. We get passing discussions, which rely on metaphor and rhetoric, of subject positioning, ideology, “fenestration,” and the determinative effects of various media apparatus. Yet Friedberg touches only briefly and lightly on each individual topic, quickly moving on to the next. Readers looking for a sustained and focused examination of the impact of “virtual windows” on psychology and culture may be disappointed.


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“In some sense all cinema is a special effect.”
—Christian Metz

Opening his book with Metz, Cubitt asks, “what cinema does?” that is, how and why does it affect viewers? His answer is that cinema moves and takes time. Cubitt rejects Metz’s emphasis on the language of and Bordwell’s concern for the psychology of narrative film. Cubitt wants to know what it means that cinema’s raw materials are kinetic and temporal; he wants to know how motion and duration affect cognition; and he wants to know how (and when) comprehension results from the temporal and kinetic aspects of cinema. These aspects of cinema are complicated, however, because cinema from its outset has been an “object” to be sold within the terms of commodity capitalism.

Cubitt’s initial concerns are for three ontologically primary “aspects” of cinema. He calls the smallest temporal and kinetic unit “pixel,” borrowing the term for the smallest spatial unit in digital images, a unit with color and luminance depth, but fixed size and shape. His “pixel” has no spatial, color, or luminance functions; rather, it has movement in time, functioning at the level of “sensation” (3). He calls the analytic and cognitive aspect of cinema the “cut,” again borrowing a complex, loaded term but inventing his own novel meaning for it. He calls comprehension “vector” (3), once more using a technical graphics term and interpreting it in a fanciful way: “The vector takes us . . . from being to becoming, from the inertial division of subject, object, and world to the mobile relationships between them” (71).

For anyone who works in computer graphics or animation, in media post-production, or in the imaging domains of Free Hand, Illustrator, InDesign, or CorelDraw (all of which use vector graphics), the terms Cubitt uses and the