

# **Photoshop Semiotics: Research in the Age of Digital Manipulation**

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In an essay on Le Corbusier's modernist utopian vision of the metropolis, Thomas Brockelman discusses the relationship between the poet/philosopher and the engineer (p.155). Brockelman's interest in this is to represent both the meaning and the limitations of Le Corbusier's notion of the social and the political as they were built up and (Brockelman would argue) failed in the form of the modern 'planned' city. Brockelman describes Le Corbusier's failure as

A dream of healing the rift *between* the architect and the "engineer"—that is, between the humanistic rationality of the architect and a techno-industrial functionalism—but this dream is not, in the final analysis, describable in humanistic terms of aesthetic modernism. When eternal reason corresponds exactly to historical reason, there is no need to preserve difference, to preserve the specific, the sensuous, or the individual. In effect, all that remains is to follow the dictates of the engineer, since the task of the artist is nothing other than a projection of the engineer's organic development. Nothing actually remains to that artist, standing on the shoulders of the anonymous scientist, except to affirm the rationality of science itself. (Brockelman, p.155)

Brockelman's larger project is to argue for what I would describe as a 'collage consciousness' that can account for both modern and postmodern impulses that he suggests co-exist in our contemporary meaning-making. In looking at the role of technology in the meanings possible through arts-based research, it is necessary to acknowledge the mark of both the poet/philosopher and the engineer. Specifically, in looking at the technologies of image manipulation epitomized by the ubiquitous software Adobe 'Photoshop' as it can serve the researcher, it is important to consider the 'science' of the semiotic and the poetry/philosophy of the hermeneutic in discovering how manipulated images can introduce a productive uncertainty that can serve as knowing.<sup>1</sup>

### **Photographic Meaning**

Like Brockelman's description of the space between modernism and postmodernism made explicit in the form and meaning(s) of collage, photographic meaning "produces what it forbids, making possible the very thing that it makes impossible" (Derrida, p.143). Batchen focuses on Allan Sekula's reference to the photographic image as a 'trace' which can be, simultaneously,

both a mark and the act of marking, both a path and its traversal, both the original inscription and its copy, both that which is and that which is left behind, both a plan and its decipherment. (Batchen, p. 236).

There is no need here to rehearse the 'scientific' and 'aesthetic' aspects of photography at full length. More than 150 years of critical literature does ample justice to that paradox (Heron & Williams; Goldberg). It is clear that "the photographic image is...a complex and curious object" (Lister & Wells, p. 90). Those fields of inquiry that grapple with this complexity, as in the case of Cultural Studies, have come to employ a theorized "eclecticism that allows the analyst to attend to the many moments within the cycle of production, circulation and consumption of the image through which meanings accumulate, slip and shift." (p. 90).

Out of the complex of methods and methodologies that address photography I want to focus this paper on the practical problem of finding a place for photography in educational research. Again, there is an ample

literature that can be used to trace the role of the camera in the study of human subjects. (Collier; Prosser, 1999, Rose) Specifically I am interested in the recent puzzle of using the camera in classroom-based research when legitimate issues of privacy (accompanied by seemingly onerous, restrictive legislation<sup>2</sup> and a media that mistakes obsessive voyeurism for entertainment) create an atmosphere of distrust. As explored at length by Prosser (2000) these concerns, based in assumptions about realism as an aspect of the meaning of photographic images are at the center of considerations of both validity and ethics in educational research.

Semiotic theories developed through the first half of the 20<sup>th</sup> century represent the last great effort to ground communication in a singular, unifying structure. Recently, it has been suggested that old, semiotic categories, need to be reconsidered rather than lost in the postmodern struggles to meaning. Jewitt and Rumiko (2001) argue that the structuralist semiotic conception of communication built around a system of universal codes must be supplemented by a “social semiotic” where images serve as “resources” (Jewitt, C. Rumiko, O., p.134). In this distinction, strict codes do exist for some visual communication. The author gives road signs as an example of a heavily coded symbol system where traditional semiotic discourse analysis works well. In photographic contexts, however, we

use whatever resources of interpretation and intellectual connection [we] can lay [our] hands on to create [our] own new interpretations and interconnections.

For social semiotics this is a vital point. There are kinds of ‘rules’, from laws and mandatory prescriptions to ‘best practices’, the influence of role models, expert advice, common habits, and so on. Different kinds of rules apply in different contexts.” (Jewitt, C. & Rumiko, O, p. 134-135)

Jewitt and Rumiko describe visual social semiotics as functionalist because it understands visual resources as having been developed to communicate three kinds of meaning: “Representational Meaning, Interactive Meaning, Compositional Meaning” (p. 140). Based on categories developed by Kress, and van Leeuwen (1996) representational meaning considers the meanings conveyed through the ‘narrative’ and ‘conceptual structure’ in the content of an image. Interactive meaning considers the ways that ‘contact’ ‘distance’ and ‘point of view’ experienced by the viewer become part of an image’s meaning. “Compositional meaning” identifies four aspects of visual organization as meaningful. These include: “information value” which is the position of a visual element within a culturally significant hierarchy of locations in a composition; ‘Framing’ which is the clustering of visual and textual elements in significant groups; ‘Salience’ which is communicated through visual strategies that create emphasis; and “Modality” which is visual indicators that are perceived as indications of ‘realism.’ (p. 141-153).

It isn’t my purpose here to defend, or even explore, all aspects of these categories. It seems clear that the emphasis on context in social semiotics introduces an element of interpretation to the process of analysis, that will be addressed later in this paper. Additionally, not all of the categories, above, need to be understood to address the issues of privacy that are the focus of this paper. I do think that two aspects of this social semiotic, ‘Contact’ and ‘Modality’, are of particular relevance to my concerns about the use of photographs in classroom research. These two categories, in different ways, address the problems and possibilities involved in our response to images that seem close to ‘reality.’

The experience of direct human exchange through photo-representations of the figural details, embodied in gesture, facial features and expression, tonality, texture and colour are all aspects of ‘Contact’ as meaning. This sense of being in direct contact with another, though it has been described as “fetishistic” (Burgin, p.165)

and linked with magic (Benjamin, 1981, p.329) persists, and reveals that the relationship between vision and touch<sup>3</sup> is a compelling aspect of photographic realism.

Where ‘Contact’ is useful in describing a psychological sense of reality, ‘Modality’ is more useful in describing a rationalistic notion of the real. Early on Walter Benjamin described this movement away from ‘the thing itself’ and toward the image as commodity as its “exhibition value” (Benjamin, 1981, p.329). In a naturalistic modality, realism, as exemplified by photography, shows a high level of visual congruence to the natural world. Read naturalistically, a photograph can serve as evidence, an authentic depiction of a moment. Documentary photography as it is used in journalism, research and surveillance photography are examples where this modality is dominant. When used in this way, manipulation of the image is seen to undermine its reliability. As described by Jewitt and Oyama (2001, p.151), in a scientific modality, realism takes on an idealized form, as in a diagram of a cell in a text book. In this second case the specific features of an actual cell would distract from the ‘real’ information in the diagram. So too with photography, abstraction through manipulation of the subject, setting or materials of production results in an image that can serve as an ideal type. Advertising photography is a ubiquitous, if somewhat problematic, example of this.

In an ‘ideal’ research project involving the photographic representation of people and situations in schools, subject and researcher might work together to represent both the social systems and the individual experiences of education (Banks, 1998). All of this might occur in a context that respects the privacy of the subject while at the same time allowing the researcher to accurately represent the specifics of experience and abstracted conceptualizations about system. In the specific instance of image-based research using photography, this would involve modulating the ‘Contact’ in the images to simultaneously represent the ‘real’ without violating the ethical responsibility to do no harm, where the fundamental harm would be a loss of privacy. It would also involve striking a balance between naturalistic and scientific ‘Modalities’ such that the uniqueness of a particular image didn’t obscure possible generalizable insights.

In reality, research is a process appropriately burdened with doubts. Taking a camera into a classroom is seen as an ethical problem because the degree of ‘contact’ it can create through the production and distribution of images is very difficult to control. While richly descriptive, that same specificity in the image causes concerns about both the ethics and value of photographs as data. Interestingly, just as the pressures increase on educational researchers, to avoid violating individual rights through the use of information technologies, the illusion that the photograph provides a simple, compelling evidence about the real world is ending. But it is only the illusion that photographs are somehow *automatic*—scientific-reflections of the world which should be abandoned. In its place must come the idea that the photograph can provide evidence of the real world but in a way more akin to the evidence provided by painting or writing. We must finally acknowledge the photographer as a subjective presence even while the science of his or her camera allows us to continue to test, in a qualitative way, for authenticity.” (Winston, p. 66-67)

On the one hand, new, digital technologies are allowing us to make and distribute images more easily. At the same time those digital technologies allow us to ‘break the chain of evidence’ between the subject, the lens and the film, that has meant so much to us as viewers of photographs.

Milgrom-Elcott (2004) analyzes a pointed example of digital manipulation in the work of American artist Alan Schechner whose image, “Self Portrait at Buchenwald: ‘It’s the Real Thing’” (1993), digitally combines a documentary photograph of prison camp inmates from the holocaust with a self-portrait depiction in

prisoner's costume holding up a can of diet Coke. Milgrom-Elcott's conclusion points out that we can not depend on the intense sense of "that-has-been" in photography, "No longer does photography's impetus lie in its direct connection to a moment past. We must now make that connection ourselves"(2004). The example of Alan Schechner's image construction, repugnant though it may be to some viewers, is important both because of the facility of its making and the fact that it is a disturbingly powerful lie that demonstrates the clear paths of responsibility it identifies for both producers and readers of photographic images.

If photographs and other lens images are to be a useful part of educational research we need to be able to identify visual conventions that foreground the constructedness in a photographic image without the need to flatly abandon the congruences between the photographic image and the life moments they represent. To return to Brockelman (2001), what is needed is a way of introducing just the right degree of purposeful uncertainty into the photographic experience. Schechner's image may represent what Milgrom-Elcott's described as "the rupture in the ontology of the photographic image"(2004)<sup>4</sup>. This rupture involves a severing of the connection between the lens and the image that had, up to the point of digitization, though complex (Emme, 1989) seemed reliably intact. While it is disturbing that this image (disconnected as it is from any singular original moment) might be misread as an authentic holocaust document, it is clear that to 'get' this image a reader must have either specific historic information, or the artist must give explicit indicators regarding the assembly of the final work. To be 'literate' in the face of Schechner's image we must understand that it is a form of collage that has been built out of photographic parts using digital glue and scissors. As such, we can read each part for the meaning it brings into a final composition that brings together multiple, sometimes contradictory stories.

### A Research Gallery



Photograph taken  
in Child Study  
Centre, University  
of Alberta

...

digital 'original'  
corrected for  
brightness and  
contrast

In developing our capacity to read and work with digital images, “ a software programme such as Adobe Photoshop can operate rather like a practical demonstration of photographic semiotics. Within a couple of hours’ use, such a programme opens up, in principle at least, the post-production manipulations of photographic representation...” (Lister, p. 225) Below are a series of image manipulations developed to pose several questions:

- Which of the images below seem to offer some individual privacy to the subjects represented? (CONTACT)
- Which of the images below allow the researcher (and those who would view this material as data or findings in the future) to focus on information that is important to the researcher, without being distracted by the surplus information that is so typically part of lens images? (MODALITY)
- In what ways do each of the images signal their manipulation so that we can analyze their reliability?



Photograph taken in Child Study Centre, University of Alberta,  
Version 2

...

digital ‘original’ corrected for brightness and contrast, whole picture abstracted using Photoshop ‘cutout’ filter with the intention of minimizing individual details of subjects while highlighting the viewing angle of each subject.



Photograph taken in Child Study Centre, University of Alberta, Version 3

...

digital 'original' corrected for brightness and contrast, background selected and obscured using the Photoshop 'Gaussian Blur' filter with the intention of focusing consideration on the foreground subjects and details.

Photograph taken in Child Study Centre, University of Alberta, Version 4

...

digital 'original' corrected for brightness and contrast, foreground selected and obscured using the Photoshop 'Gaussian Blur' filter with the intention of focusing consideration on the background subjects and details.





Photograph taken in Child Study Centre, University of Alberta, Version 5

...

digital 'original' corrected for brightness and contrast, then abstracted using the Photoshop 'Poster Edges' filter with the intention of obscuring individual identity but retaining the organic and proxemic aspects of the subjects' physical relation to each other.

Based on a digital photograph, the first image was only adjusted for brightness and contrast with the idea of allowing all features of the photo to be as readable as possible. This is my attempt at producing a 'good' (meaning clear, and honest) photograph. The further images each involve the application of specific Adobe Photoshop filters and, in some cases to selected specific areas only. In addition, there is a final image that has been imported into Adobe Pagemaker so that, after filtration, I could also add text balloons. This approach, inspired by the *fotonovela*<sup>5</sup>, has been used by the health workers to communicate information in contexts where literacy issues make the use of visual communication important. I am currently engaged in research with a colleague in exploring immigrant children's non-verbal communication strategies in school. We are asking children to use photography and the *foto novella* form to represent their experiences.

### Conclusion

These images come from a singular source and yet each manipulation does double-duty. In each case our attention is focused on specific layers and areas with the end of pointing to some potential truth in the image. At the same time, because of the obvious, digital hand of the researcher, it is clear that the viewer does not have access to the truth of the whole picture. We see multiple sets of codes that can each be analyzed using the strategies of social semiotics for their sense of 'contact' and 'modality', but at a more complex level, each of these layers needs to be interpreted in relation to each other. Returning once again to Brockelman, we need to develop a "collage hermeneutics" (Brockelman, p. 187) that can, at once, accept that uncertainty is part of photographic meaning, but resists "The endlessly repeating gesture whereby thought immolates itself for fear of totalization" (p.187).

In an earlier publication I describe visual research methods as "unruly" (Emme, 1999) by which I meant research that was both aware of and prepared to transgress existing research traditions. In Brockelman's sense of uncertainty as knowledge, in Jewitt and Rumiko's social semiotics that understands photography as a re-



source for meaning, and in a technological tool box that includes the accessible capacity to selectively disconnect the photograph from the burden of its relationship to the lens, I see ample opportunity for researchers to develop an image-based “rigor” (Madigan) that can be modern/postmodern, and, more importantly, can make a contribution to the future form and content of educational experience.

### End Notes

<sup>1</sup>In *The Frame and the Mirror: On Collage and the Postmodern*, Brockelman poses fundamental questions about knowledge that have implications for structure and practice in the schools. Grounded as it is in collage art exemplars from the past 90 years, Brockelman’s challenging discussion offers the satisfaction of theory made visual. Better still, the cycling between an awareness of fragments and origins on the one hand and a unified meaning on the other, goes beyond a static representation to a dynamic, almost animated sense of the relationships between meanings that is both the heart of the collage experience and the idea of ‘uncertainty as knowledge’ (Brockelman, p. 187), that is Brockelman’s ultimate thesis. (Emme, In Press).

<sup>2</sup>For one example of the scope and nature of freedom of information and privacy (FOIP) legislation, see: [http://www3.gov.ab.ca/foip/legislation/foip\\_act/index.cfm](http://www3.gov.ab.ca/foip/legislation/foip_act/index.cfm)

<sup>3</sup>For a rich exploration of the relationship between vision and touch, see: Vasseleu, C. (1999).

<sup>4</sup>In discussing what he called ‘post-ontological art’ Weibell notes that once digitized, any image can be manipulated. It becomes part of a dynamic system that does not answer easily to the old aesthetic categories. In considering how to read these new images he argues that “our traditional notions of our visual and aesthetic conceptions have been radically altered. The image has mutated into a context-controlled event-world” that takes on some of the dynamic qualities of an organism. (Weibell, p.349)

<sup>5</sup>For a relatively recent exploration of the fotonovela see Reed (1998) or Calligaris (1998).

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