THE VICISSITUDES OF SOFTWARE

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Today, visual communication design is as dependent upon material means to persist as it has ever been. To design at all relies upon base, analog material processes. This talk is written under the presumption that within graphic design it is these material means and processes which are being relegated in importance in favor of immateriality, and that the notion of materiality is increasingly tinged with the romanticizing significance of a relic or ruin. Given the increasing popularity of conceptualizing design through immateriality, what interests me is not immateriality "itself" but its rhetoric, and the cultural and economic forces at work in the production of this rhetoric. Efforts to capitalize on immateriality invoke the notion of new media and Digitality as central causes of this relegation. Digital processes are frequently framed as less material and more evanescent, less spatial and more temporal, and are of course, the antithesis of analog processes. These new orientations have proven to be formative, creating exciting new orientations to the problem of graphic design, sparking debate and discussion, revitalizing curricula and been a central motivator for many a teacher and student. Most exciting for me, they have *opened up* graphic design to larger question of media, critical theory and deconstruction, and finally to rethinking how we employ history and theory as educators in the wake of post-structuralism.[1] The most prominent proponent and populizer of post-structuralism in the field is of course Ellen Lupton, who manages to incorporate its often dense orientations in amazingly transparent prose. Sacrificing depth for a theoretical quick fix however, her writings privilege a certain figure of the designer, despite the deconstruction of this figure that the theoretical tradition she employs may otherwise suggest.

1. In retrospect, decon's days in design were numbered by literary criticism. For more science and tech-friendly entry points, see Gumbrecht, H.U. and Pfeiffer, K.L, Eds.. *Materialities of Communication*. Stanford: Stanford University Press, 1994.

Operating within a technologically optimistic vein of Bauhaus-inspired post-World War II design education, this summarizing strategy is soundly pedagogical, which is to say it is driven by good intentions. It is this notion of good intentions, that is, what the road to hell is always paved with, that I wish to discuss this afternoon.

Lupton's application of postmodern theory, among many in graphic design since Cranbrook suffer from an inability to effectively model to young designers the difference between intention and action, to separate theory from practice and examine them as overlapping yet often disparate enterprises, to demonstrate that neither theory nor practice hold an exclusive claim to visual communication, and never have, and finally to provide a space in the studio to question the orthodoxy of the theory/practice union itself. Using one instance of this problem as an example, I want to talk briefly about Lupton's book *Thinking with Type, A Critical Guide for Designers, Writers, Editors, and Students.* Lupton assembles the book into three sections, "Letter", "Text" and "Grid," each beginning with a critical essay followed by an extrapolation of type rules and guidelines. The "Text" section of the book presents a thoughtful examination of type as a continuous linear and spatializing form.[2] Her essay in "Text" is inspired by Barthes' notion of the same but this does not prevent her from gesturing beyond, and in fact suggesting the inadequacy of Barthes' theories in light of new media. While the text outlines the importance of Barthes promotion of the reader over the writer, "The reader 'plays' the text as a musician plays an instrument. The author does not control its significance", it later continues "The dominant subject of our age has become neither reader nor writer but *user,* a figure conceived as a bundle of needs and impairments…"[3] What interests me is how the essay historicizes and theorizes the figure of the user as dominant yet in the cause of design pedagogy disrupts this dominance, thus contradicting itself.

At the close of the essay, Lupton writes "The reader, having toppled the author's seat of power during the twentieth century , now ails and lags, replaced by the dominant subject of our own era: the *user,* a figure whose scant attention is our most coveted commodity. Do not squander it."[4]

2. Lupton, Ellen. *Thinking with Type, A Critical Guide for Designers, Wri ters, Editors, & Students.* New York: Princeton Architectural Press, 2004.

3. Ibid., p. 73.

4. Ibid., p. 76.

In order to reinforce the idea of the dominance of the user, the essay on text must resort to an imperative voice, one which underscores the status of readership not user-ship. Following a description of the reader as something which "ails and lags" The text directly addresses and thus reinforces the integrity of its reader by employing the imperative "you understood" subject.[5] The irony of this action is total and telling. Not only does it misguide an understanding of Barthes by overtly inhabiting the position of writer authority, it directs exactly how this authority should be "played." This is only one example of the failure of pedagogy's good intentions. When an introductory teaching tool fails to parse the sometimes disparate purposes of theory and practice, it turns theory into practical nonsense. Whatever role Barthes' theory of the text may have played in the formulation of this essay, its theoretical import cannot survive its design educator agenda of commanding the reader to follow instructions. The "Text" essay's implicitly hierarchized division of user and designer dissolves the efficacy of post-structuralist theory. Reinforcing the authority of the designer over the user for example, weakens the efficacy of Derrida (an author cited in the essay), whose writing attempted to reconfigure the structure of authority in order to expose its otherwise latent operation. Despite good intentions, the essay does not practice what it preaches.

Given the absence of users from the subtitle, "A Critical Guide for Designers, Writers, Editors and Students" we might assume its readers are not users. But of course we are users. Lupton's text hinges on a ruse, the convenient revival of a ailing reader from the undifferentiated contagion of user-dom. Given the dominance of desktop software in graphic design since the late 80's, her reader is very much a user and, consistent with her argument I would say scarcely much more. It is this denial of the reader's dominant status as a user, that is, the text's unwillingness to negotiate this figure directly, despite even its own argumentation, that interests me. Lupton's text is of course not primarily interested in users, except to externalize them as something other than the reader of her book. This despite the fact that her reader, a designer or college student among

5 . "You understood" is the only construction in English grammar where a subject is not necessary. In this absence, the convention visualizes only what is spoken and thus particularly effective in reinforcing the logocentric function of writing as mere supplement to speech. Lupton's text and her imperative work to secure designer agency against the user. For a good discussion on the ways in which typography may have moved writing *away* from speech, see Ibid., p. 67.

6. As is the case with any book published in the wake of desktop publishing, its design is a mere effect of page layout software and its manuscript "word-processed."

others, was likely a user first.[6] This situation can be compared to the psychoanalytic condition of disavowal where a patient continues to deny the reality of a traumatic event despite their demonstrated capacity to recall and recognize it. This denial is neither reducible to Lupton, nor her generation. One may view it in a number of ways. A simple explanation of this denial is the ambivalent agency that the term "user" suggests. If there is one thing that design has little time to indulge, save for a little Cranbrook inspired "self-expression," it is the notion of ambivalence in its own agency. If the ambivalent agency inherent in the notion of user were not hard enough to accept, the opportunity for denial mushrooms the more we recognize (and then of course deny) our significant, even originary, identity, as users. In the end the logic of the disavowal is practical, which is to say it is an issue of survival. To directly address the user is the same as effacing the designer.

Though the apparatuses, hardware and interface, which constitute the context of the user and its dominion are primary, design pedagogy, to be so called, must recognize design primarily, as something *other.* There are many ways to approach the persistence of this otherizing, of design from the dominance of the user. What I find most provocative is not the difference between questions of design and those of "the user" but rather the forces, insidious in many cases, which fuel the persistence of the separation. In many ways I think a more substantial discussion of these forces will be continually foreclosed by an ideology of immateriality I suggested at the beginning of my talk. An obvious locus of these forces is design software. Prevailing attentions toward immateriality persist by and through the demand and seeming necessity of these commodities. In general, graphic design has yet to come to grips with the depths of its investment in software, its connivance with the private interests of its manufacture, and with the feckless anachronisms of "craft" of "making" used to describe it as an occupation of time. Contrary to the modernist origin stories we foist upon undergraduates, the graphic designer today is a function of the software he or she must consume, learn to operate, take pleasure in the analogue effects of, and forever update. Design education's

ambivalence toward global market forces and the functionally insidious methods of branding, continues to relegate software to the status of a mere means. More importantly software's status as an innocent necessity of design is completed by the adoption of the digital immateriality *zeitgeist*. Far from problematizing its use, graphic design proceeds according to software's functional neutrality and design education proceeds, bizarrely, through the ignorance of design educators, to the technical operation of software-hardware interaction. In an article entitled "There is no Software," German, media theorist Frederich Kittler writes "What remains a problem is only recognizing these layers (of software), which like modern media technologies in general, have been explicitly contrived to evade perception." [7] To function as a design educator today in fact, not insignificantly, depends upon maintaining this functional blindness, lest design loose a connection to the software user, a simplifying (i.e. "Human") effect of the complex imbrication of corporate strategy, HCI discourse and design's growing research culture. This ignorance is not knowledge. There is no way to fashion this ignorance, this absence of capability and thoughtful capacity, as an asset. And yet, that is exactly what it is at the same time.

I think many of us would agree that the adoption of digital apparatuses has made us reexamine the nature of our practices. I'm afraid far fewer are willing to recognize how this adoption cannot occur without substantial efforts, within our rhetoric, to normalize it first. Through discourse and pedagogy, the illusion of functional stasis in graphic design as a unified practice and the concrete experience of radical technological change in the culture are alloyed, tempering each by mutual concealment. It is this mixture which allows us to maintain the fiction that the change is not too radical. The radicality is pacified and controlled by and through design discourse itself. When we decry the seeming absence of materiality in digital design processes, our concern is mollified by the optimism of immateriality. When we are at a loss to understand where people end and machine begins, commentators cite the existence of "the user" and practitioners assert new forms of making such as "interface design", or

7. Kittler, Fredrich A. "There is No Software." In *Literature, Media, Information Systems:Essays.* Ed. John Johnston. Amsterdam: Overseas Publishers Association, 1997. p. 148.

"experience design." The purpose of discourse is necessarily to produce this reality-effect. The widespread and now completely unconscious use of the graphic user interface (GUI) makes this illusion seem quite real. In the same article I just mentioned, Kittler provides a refreshing reversal of graphic design's best intentions surrounding the invention of the GUI. He describes two phases in software development which deny user access to the processes by which software communicates with hardware "On an intentionally superficial level, perfect graphic user interfaces, since they dispense with writing itself, hide a whole machine from its users." [8] If one pairs this pronouncement with long standing affirmations of desktop publishing within graphic design and "design it yourself" discussions today, a clearer insight into graphic design's disavowal of its "user" investments may occur. In her foreword to *D.I.Y.: Design it Yourself* Ellen Lupton writes "Public interest in design has grown over the past 25 years. The rise of 'desktop publishing' in the 1980s delivered digital design tools to the general public." [9]

8. Ibid., p. 151.

9. Lupton, Ellen. *D.I.Y.: Design it Yourself*. New York: Princeton Architectural Press, 2006.

What a reading of Kittler suggests is that the delivery of design tools to a general public not only relates to the closure of software from user access but also directly corresponds to this closure. The "going public" of design is simultaneously a foreclosure of the digital designer's comprehension of the material processes which undergird their practice.[10] It is the very language of the user itself which quite effectively shrouds the whole process and provides the illusion of control. Kittler again "…through the use of keywords like user-interface, user-friendliness or even data protection, the (software) industry has dammed humanity, to remain human" and in a discussion of cryptology, now in common use to "protect" software and its users "the only real thing one can deduce from all of this is that software has obviously gained in user-friendliness as it more closely approximates the cryptological ideal of the one-way function" [11]

10. DIY is of course another imperative, the Siren voice of software. "Yourself" is quite literally an effect of cryptology. Ironically, the figure helps dissolve questions of digital enlightenment into the venal moralisms of proprietary knowledge. See Kittler, Fredrich A. "Protected Mode." In *Literature, Media, Information Systems:Essays*. Ed. John Johnston. Amsterdam: Overseas Publishers Association, 1997. p. 158.

11. Ibid., p. 157.

As a refreshing alternative to Manovich's *The Language of New Media*, Kittler's writing not only embraces the revelatory promise of the digital but as he says "how computers deceive us. For it seems to be precisely this

12. Kittler, Friedrich A. "Computer Graphics: A Semi-Technical Introduction." *Grey Room* 02 (2001), p. 34.

exorbitant capacity that elevates the medium of the computer above all optical media in Western history." (emphasis mine) [12]

What troubles me about contemporary design pedagogy is its willingness to accept the reality-effect of consumer culture as evidence of change within graphic design. Software has as much to do with graphic design as it does with military strategy and banking transactions. According to modernist mythology, a designer's responsibility revolved significantly around an intimate knowledge of materiality. No matter how you slice it, efforts to render design immaterial are just that, immaterial, a fools errand, an ahistoric or revisionist hubris, an optimism that once, quite recently, made so much modernism the object of ridicule.

In the department in which I teach, the attainment of a bachelors degree is not aided by the purchase of software, it is contingent upon it. Within the first days of their second year, students are required to have consumed an array of software programs. Unlike all pre-digital design precedent, a student's basic understanding of the material means of their practice, no matter how essential those means are, is simply no longer a concern of their education. It has been replaced practically overnight, by the consumption of software. To the extent that I teach software, I am simultaneously its marketer, and to the extent that I require its use in my studios, I contribute to the illusion of its necessity on a daily basis. As an instructor in a public institution of higher education, I am only beginning to come to grips with my own software disavowal. To the extent that we remain ignorant of how the digital apparatus actually works, we are not designers in any compelling, historically contiguous definition of the term, we are design software users. To the extent that we continue to fail to comprehend this apparatus, we no longer teach for a future but for the digital industry's perpetually updating present, one executed not by and for design but for a human, damned to remain so, by software.