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Abstracting Craft: The Practiced Digital Hand (review)

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ABSTRACTING CRAFT: THE PRACTICED DIGITAL HAND

by Malcolm McCullough. MIT Press, Cambridge, MA, 1996. 309 pp., illus. Trade, \$17.50. ISBN: 0-262-13326-1. Paper, 1998. ISBN: 0-262-63189-X.

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Is the new class of computer workers turning into a digital proletariat, or will it be a guild of digital artisans? Though not oblivious to the specter of the first, Malcolm McCullough is in favor of the second and this book offers a rich theoretical discourse about the practical, cognitive and technological conditions of “creative computing.” He primarily talks from the perspective of computer-aided design, and although large parts

of the book are also interesting for understanding computer-based work in general, designers will probably benefit most from studying it.

The book offers a detailed analysis of the technical and psychological aspects of digital interfaces. In three sections, McCullough deals first with physiological and cognitive issues (hands, eyes, tools), moves on to representational and technological questions (symbols, interfaces, constructions) and ends with aspects of the practical usage of computers (medium, play, practice). The professed aim of the study is to re-root digital work in physical human agency and to develop a critical understanding of the ways in which the computer as a medium requires a new set of creative skills, especially regarding the handling of complex symbolic abstractions and the ability to construct mental models of objects and processes.

McCullough talks about basic aspects of current computer usage that one does not find in software manuals but that form part of the foundation of any digital design practice. Without doubt, this is a book for curious computer workers who want not only to be good routine users, but also to be reflective, conscious practitioners for whom the computer is not a neutral tool but a complex medium whose dimensions and degrees of freedom ought to be well understood. The focus of the book lies entirely on human-computer interfacing, not on programming or interface design. Although McCullough does make a distinction between good and bad technical engineering, technology both in the form of software and of interfaces is presented as a given. Changes in that field have to happen, it seems, purely through engineers with whom the designers—and thus the readers of this book—have no direct relation. *Abstracting Craft* contains no call to arms for designers to learn to build their own tools. Instead, McCullough posits that it is the task of engineers to abolish the existing limitations of technology—in so far as they do not form necessary creative constraints—and to develop less obtrusive and increasingly transparent technical tools for the creative designer.

More than anything, McCullough has striven to write a breviary for the digital artisan. Throughout the book, he reiterates the claim that computer-aided design practice is an “abstracting craft” that is not ruled by automation but by

inventive, playful artistry, following not the model of the factory work, but the ideal of pre-modern craftsmanship. Implicit and explicit references are made to the late-nineteenth century arts and crafts movement, which sought to reverse the ills of industrial mass manufacture through a reappraisal of the “aura” of material, work and product.

The romanticism of McCullough’s approach is understandable on a strategic level, in the sense that it seeks to foster a professional identity through which designers can recognize the subjective and creative potentials of their work. Politically, however, this approach is as problematic as the arts and crafts movement was, in that it fails to talk about the material conditions and the economic context that determine the work of most designers. We find no critical word about Hollywood’s computer-aided design factories, nothing about the relationship between interface design and Taylorist ergonomics. Instead of the economics of digital labor, McCullough talks about an idealized sphere of play, craft, beauty, ethics and praxis.

McCullough is, much like the oft-cited William J. Mitchell, an optimist who believes that the new economy and social ecology brought about by the Internet will lead to a less hierarchical regime of creative participation that will in fact be close to the ideals of pre-modern craftsmanship, populated not by digital proletarians disguised as artists, but by true digital artisans. Those who share this optimism will enjoy this book more than those who, while learning from the minute descriptions of computer-based design practice, will be scratching their heads about how their own working conditions relate to the ideals that form the backdrop for McCullough’s discourse.