



abstracted, more mentalised, where the hand remains very much the afterthought appendage of the body. 'Eyes are in charge' he observes near the beginning, 'the great monopolists of the senses', although much of the book's first section is devoted to developing a critique for the crafts person's three way relationship between eyes, hands and tools to preface and prepare for the book's next two segments. In support he draws in Rudolf Arnheim's *Visual Thinking*, Octavio Paz, and most of all Michael Polyani and his book *Personal Knowledge*, to which this book is perhaps a digital footnote.

McCullough's optimism is such that the split between work and techne, caused by the advent of factory mechanisation, can be healed by the computer, a threshold liberating technology. Whilst steeped in precautionary reservations and emphasising how speculative crystal gazing into fast changing technology is, McCullough is certain that computers could provide a dynamic new 'engine' for craft associated skills. These emergent new media craft industries go a long way to repairing the divide between pre-modern skill and industrial alienation.

In part two, 'Technological Context', his proposal that creating digital, and virtual, software artefacts are credible manifestations of craft, is extensively developed. Here, the skills of working the mouse, various design software, and the centrality of the interface is

completely and unselfconsciously craft. Not traditional craft but close enough for there to be 'masters' of such an approach, manipulating, carving, engaging in risk. Digital crafts turn out to be not only the application of new media to traditional crafts but the use and utility of the computer with skill and craft, for the end of producing on screen, and virtual craftwork. McCullough does get quite caught up in the extent to which new media already reproduces, and whether it will simulate the varieties of craft experiences. He acknowledges, for instance, the meditational qualities people associate with immersion in making. With this in mind he draws on cognitive science research and the degree of participation the digital craftsperson could hope for. So the computer's potential for continuous operations is examined, and attention to its capacity to effectively convey the sense of craft flowing without any perception of discontinuity. Similarly, he focuses on the well-designed interface, as crucial to human-computer relations. To support this, McCullough provides a rather, to my mind, unconvincing exaltation of the computer master whizzing around the console, 'skillfully executing, combing and combining' as equal to, though different from, other renditions of traditional physical craft skills. This seems very much at odds with Frank Wilson's contention of the hand being a primary part of the human primate's ongoing evolutionary make up. If these are surface similarities, the real and