

—biologists presume to go where historians hesitate. Social theory is a minefield, even for those experienced in it. The quantification of historical patterns is useful and important, and should have a place in historical research. But sophisticated mathematics will not improve naive social theories. ■

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Get connected

Me ++: The Cyborg Self and the Networked City

by William J. Mitchell

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Joanne Baker

We are all cyborg nomads. So argues William J. Mitchell in his new book *Me ++*, in which he explores how our intimate relationships with technology shape both our lives and the environments we build around us. *Me ++* follows on from two of Mitchell's earlier works, *City of Bits* and *E-topia*, which investigated the symbiosis of technology and design.

In *Me ++*, Mitchell describes evocatively how miniaturized and dispersed devices, and entirely dematerialized bits of digital information, fundamentally change the way we sense and relate to the world. This realization raises new questions about how we design everything from clothing to cities. Mitchell's thesis is that ever-shrinking devices will increasingly be carried along with us — becoming part of us — rather than being accessed at fixed points in space.

As we swim in a sea of digital information broadcast as electromagnetic waves, through mobile phones, computers, video screens and speakers, we augment our bodily senses through technology, effectively becoming cyborgs. The clothing, walls, buildings and cities that surround us can be thought of as skins, successive layers through which our senses operate.

According to Mitchell, the roles of these skins should be reconsidered. Microscopic sensors, machines and miniature electronic devices can easily be replicated, distributed and carried. For example, tiny temperature sensors, or digital information systems, might be woven into the threads of clothing, rather than being hung as boxes on walls. By plugging ourselves into extended webs of sensors, we might control our own personal environments and, moreover, generate new fields of interaction within entire communities, even globally.

With great clarity, Mitchell describes how traditional, localized cities developed at sites of accumulation of materials, transport and wealth. The urban structure as we know



Seeing stars: Adam Elsheimer's *Flight into Egypt* represents the Milky Way as a series of dots.

Spot the Milky Way

Ancient Mediterranean civilizations believed that the Milky Way was composed of milk spilled from the breast of a goddess. But when Galileo turned a telescope to the heavens for the first time in 1609, he showed instead that it was made up of untold numbers of individual stars. Adam Elsheimer's *Flight into Egypt* (above), which was completed in the same year, is the first depiction of the Milky Way in an oil painting.

The painting, which shows the holy family travelling in a scene illuminated by a low-hanging Moon, presents the Milky Way as a series of dots. Does this mean that some people had already understood the true nature of the galaxy, asks Francesco Bertola in his

sumptuous new book about the Milky Way, *Via Lactea* (Biblos, €39.95).

The book highlights 60 images that illustrate how artists from across the world, over more than two millennia, have represented the faint celestial arc of the Milky Way. It also includes astronomical pictures taken using ground- and space-based telescopes, particularly the Hubble.

The book's text, in English and Italian, describes the myths and legends associated with the Milky Way, as well as its science. But there is also a moral. The Milky Way, inspiration for so much art, philosophy and simple wonder, is no longer visible to most inhabitants of our light-polluted world.

Alison Abbott

it — with central business districts, coarse zoning, suburbs and ring roads — follows directly from this function.

But today, the information revolution is changing all that. In Mitchell's view, cities are no longer dominated by localized objects but by dematerialized bits. In a world where you can connect your laptop to the Internet from practically anywhere, location has become incidental, and access to information is the new currency for foraging urban nomads. "I link therefore I am," says Mitchell. Consequently, he argues, urban design should reflect this new dynamic world.

Mitchell concludes provocatively by pronouncing the death of the modernist architectural programme. Form can no longer follow function; spaces should be what we want them to be, when we want them to be. They should be flexible as our needs change. Cafes, parks, hotels and trains can all be tem-

porary workspaces for someone with a wireless laptop, so why be confined in a cubicle?

Me ++ is an exhilarating read, jam-packed with interesting facts, colourful phrases, imagery and sage insights. Some of Mitchell's ideas are not new, but he makes a powerful argument that will influence the designers of our future environment.

Mitchell raises more questions than he answers and leaves the reader wanting more. Big issues of economics, access, surveillance, privacy, security, ownership and identity are mentioned but barely explored. Similarly, there are too few glimpses of the exciting new products that may transform our lives. What form will the futuristic knowledge-based city take? Mitchell articulates the *zeitgeist*, but even he cannot predict where technology will take us — or where we will take it. ■

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