In his book *Stuff* (2010), the anthropologist Daniel Miller proposes that material objects are, by their very nature, recessive. Things have a way of disappearing into the background, where they provide a stage set for social interactions, silently shaping the terms of human engagement. Objects matter “precisely because we do not see them”. If we are prepared to accept some such generalization, then paper would seem to be the unobtrusive object par excellence.

Alexander Monro and Lothar Müller both draw attention to the elusiveness of their subject as they embark on their formidably learned, sharply contrasting histories of paper. For Müller, paper is “a virtuoso of substitution” that achieved its position of dominance “by insinuating itself into existing patterns and routines”. Monro calls paper a “self-effacing surface”, the power of which lies in its “absence of personality”. It has come to matter thanks to its willingness to act as “the porter of the written and printed word for two millennia”. This premiss seems reasonable enough, but it creates challenges for Monro’s narrative. In his story, paper is always just one party in a complex alliance, between peoples, places, languages, letter-forms and writing surfaces. So submissive is it that it frequently threatens to vanish from view. He is forced to create new doublets (“paper Buddhism”, “paper-printing”) and to add clunky interjections – (he might have added ‘on paper’) – to remind us of its continuing presence and importance.

Monro is a Sinophile, and the focus of his book is on the early centuries, when the new invention was “marooned in East Asia”. When paper first appeared, perhaps in the first and second centuries BC, it represented the ideal solution to the pressures created by China’s burgeoning culture of writing. The earliest Chinese writing had been on animal bones and turtle-shells; later, bamboo became the medium of choice. Confucianism and Daoism had generated vast amounts of writing on bamboo, but paper entered into its most powerful alliance with Buddhism, in which the physical reproduction of scriptures and sutras was a means of spiritual merit-making. Thanks to paper, Buddhism could seep into China,
adapting itself to local circumstances and appealing to new, non-elite readers. The relative cheapness and flexibility of paper as a writing surface were also essential to the flourishing of literature, letter-writing and other forms of self-expression, epitomized for Monro in the career of the bureaucrat and poet Bai Juyi, who “lived out his views and moods on paper”.

Monro follows the trail westward to Samarkand and Baghdad, emphasizing paper’s place in the circulation of the Qur'an and in the “great crescendo of learning” under the Abbasids. The transfer of paper to Europe, and its alliance with print, appears as something of a footnote to this glorious earlier history, although (if we share Monro’s logocentrism) it was print that finally allowed paper to achieve its destiny. In the mass-produced book or newspaper, textual content could finally trump the value and beauty of the material medium.

Müller’s narrative could scarcely be more different. He “only looks at Asian papermaking from afar”. He dispatches the eunuch Ts’ai Lun, whose experiments turned paper into a medium fit for government, on the first page; he reaches the Battle of Taraz (751), as a result of which the art of paper-making was reputedly transferred to the Islamic world, two pages later; he arrives at the Abbasid Caliphate four pages after that. While Monro lingers in the caves at Dunhuang, where a treasure trove of early paper was unearthed in 1907, Müller hotfoots it to the Cairo Genizah, a windowless room attached to the ruined Ben Ezra Synagogue, into which tens of thousands of pages had been “retired” once their useful life was over. Here he finds the earliest known references to the stories of A Thousand and One Nights, a cycle in which paper is always present, “as inconspicuous as it is indispensable”, whether in the form of an amulet that confirms a character’s genealogy or a fleeting poetic metaphor of the sea spread out “like a smooth sheet”.

This is the first of many sprawling narratives that Müller, a literary critic by training, uses to articulate his own richly sprawling history. Rabelais, Cervantes, Grimmelshausen, Sterne, Goethe, Jean Paul, Balzac, Joyce and William Gaddis are among the authors he draws in to testify to the reimagining of paper over time. He is particularly interested in novels that go out of their way to feature the handwritten papers that purportedly underlie them – the letters in Clarissa, the journal in Robinson Crusoe, the manuscripts of Cide Hamete Benengeli in Don Quixote. Print emerges as a medium that created a compensatory fascination with paper and handwriting, whether in the form of the authorial archive or of individual autograph manuscripts. The latter, according to one handbook of 1856, represent “the visible relics of thought, the emanations of the intellect, the most expressive daguerreotypes of the psyche of famous, thoroughly distinguished people”. Through the “transparent typography” of the printed book, readers glimpsed an enchanting landscape of scribbled pages.

Monro discusses a number of “re-engineerings” of paper that allowed it to make its stealthy progress across the world; these include the move from plant fibres to linen, hemp and rags in Islamic and European papers, and the addition by the Italian paper mills of gelatin sizing that allowed paper to withstand quill pens. For Müller, the really significant shift arrives with the mechanization of paper-making in the later eighteenth century. This involved a turn to wood pulp, which finally released paper from its reliance on an unpredictable supply of rags and turned it into “a mass-produced, ubiquitous industrial product”. The transformation of paper-production and of printing in this period fostered a huge expansion of cheap print and turned the newspaper into “the central mass medium of industrial modernity”.

Mechanization also released anxieties about the emptiness of the “paper age”. Thomas Carlyle used the paper-lined hot-air balloon of the Montgolfier brothers, which had caused a sensation in the 1780s, as a symbol of the insubstantial nature of paper money and much of what passed for writing; such associations between “paper, air, wind, and credit” continue to register in our concept of inflation. One of Herman Melville’s narrators witnesses the flow of machine-made paper and imagines the dizzying variety of uses to which it will be put – “sermons, lawyers’ briefs, physicians’ prescriptions, love-letters, marriage certificates, bills of divorce, registers of births, death-warrants, and so on, without end”. Monro’s history ends in 1789, with Revolutionary ideals of press freedom, and the possibility that paper might be an enfranchising force in human culture. Müller gives us more than a hint of the nausea that might be induced by too much paper.
The proliferation of marriage certificates and death warrants holds few terrors for Lisa Gitelman, who finds richness rather than ennui in them. Her ingenious essay in media archaeology, *Paper Knowledge*, takes as its central category the document. The document is a material genre; the words matter, but so too does their physical instantiation, which is often accompanied by a baroque flummery of watermarks, seals and signatures. And the document is remarkable as a product of print that does not ask to be read. Instead, documents are used to hold us in place within a web of bureaucratic institutions.

If, in the early twenty-first century, we are inclined to worry about the pace of technological change and to look back with longing to a pre-digital past, Gitelman does her best to lance our nostalgia. The notion of a homogeneous “print culture” crumbles as she lays bare the variety of ways in which “paper knowledge” was produced. Her first chapter studies the overlooked world of nineteenth-century job printing, the production of items such as blank books, trade cards, letter-headed papers, posters and invitations, which were usually printed on small iron hand-presses for a local market. This was a world in which you could get yourself a job as a “ruler of blank books”. So much for mass production.

The next stop on Gitelman’s tour is the America of the 1930s, when scholars were worrying about how research materials were to be preserved, catalogued and made available, and about how best to circulate the fruits of their research given that academic monographs did not sell. (*Plus ça change.*) They responded by experimenting with numerous reproductive technologies, including carbon papers, mimeographs, hectographs, photo offsets and microfilms. Robert C. Binkley, the modern Ts’ai Lun who led the investigation, put together sample books to demonstrate the workings of the various new media, but warned his readers that “the rush of innovation makes a chapter out of date almost as soon as it leaves the typist’s hands”. There were hopes, just as there are today, that new technologies would open research to the general public, and that amateur historians would come together to preserve the fragile traces of the past.

Gitelman moves on to reconstruct the culture of the humble photocopy, which is still (just about) with us, focusing on the leaking of the Pentagon papers in 1971 and the circulation of the “Commentary on the Sixth Edition Unix Operating System” (“the most photocopied document in computer science”). Her last chapter brings us to the present day, and to the PDF or “portable document format” which has become a ubiquitous element of our online experience. The PDF represents an attempt to stabilize the digital landscape, creating a visual presentation that will not vary across platforms, and so can be trusted to behave with some of the regularity and reliability of words on paper. PDFs also “insulate reading from authoring”, creating a structure of authority familiar from our interactions with print. In these respects, the PDF offers a digital surrogate for the world of ink on paper that we are currently learning to miss. Alexander Monro, in his conclusion, locates the significance of the printed book in its power to “give physical form to whatever writings and images we choose to value”; Lothar Müller, comparably, notes the “material self-containment” of the newspaper page in comparison with its online rivals. But in the PDF, form and content once more coalesce. Paper starts to live a virtual life, and the document as a genre lives to fight another day.