

ELIZABETH E. EISENSTEIN'S *THE PRINTING PRESS AS AN  
AGENT OF CHANGE: A REVIEW ESSAY\**

IN HER STUDY OF THE EFFECTS of the printing press on European culture, Elizabeth Eisenstein set out to do two things: firstly, to rectify what she perceived as the failure of previous historians to deal adequately with the role of technological developments in broader cultural change; secondly, to do so in a scholarly, rather than 'McLuhanite' (p.xvii) manner.

The preface to Eisenstein's monumental work seeks to establish a number of crucial points. Eisenstein joins battle with Marshall McLuhan, dismissing his 'oracular pronouncements' as 'symptoms . . . offered in the guise of diagnosis' (pp.x-xi). She announces that she found 'not even a small literature available for consultation' on the 'obviously important subject' of the 'consequences of the fifteenth-century communications shift' (p.xi). She explains her methodology (focus on 'already literate elites', p.xii; abstention from 'archival research', p.xvi), delivering in passing a couple of swipes at 'the current vogue for "history from below"' (p.xiii). She insists that what follows is not a 'monocausal interpretation', that she does not subscribe to 'technological determinism', and that 'the term printing press [is] a shorthand way of referring to a larger cluster of specific changes' (p.xv). The preoccupations revealed here are keys to the book's strengths and weaknesses.

The battle with Marshall McLuhan rages through all of Part One, which is a not always coherent attempt to establish some sort of grand unifying theory of 'communications shifts'.<sup>1</sup> For all the ferocity, though, of her assault on *The Gutenberg Galaxy* Eisenstein remains McLuhan's disciple. She would not have written the book she did if she failed to accept the validity of McLuhan's basic hypothesis — that the medium through which a message is transmitted dominates ('is') the message itself. McLuhan himself took some delight in noting that his book emerged favourably from Eisenstein's discussion, beside 'her unflattering and laconic dismissal' of many others, and was even 'a sort of double-plot for her sombre narrative'.<sup>2</sup>

Having taken up McLuhan's idea that media matter more than messages, Eisenstein sets out to demonstrate the paucity of serious historical studies in this area. A number of her more light-weight reviewers<sup>3</sup> accepted her claims, and passed remarks to the effect that no one would be able to write history henceforth without giving due prominence to the technology of book production. Needless to say, events have proven otherwise: historians still show us 'how many of the facts of life . . . belong together' (p.708), without nailing everything in sight to a printing press.<sup>4</sup>

Further, Eisenstein does not really cover any territory that was not at least sketched in by Febvre and Martin twenty years earlier. *The Coming of the Book* (although it has clearly lost much in translation) treats its subject more satisfactorily than does Eisenstein: it manages to examine the technology itself in some detail, whilst keeping in view the broader contexts in which that technology operated.

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\* Elizabeth L. Eisenstein, *The Printing Press as an Agent of Change: Communications and Cultural Transformation in Early-Modern Europe* (Cambridge: Cambridge University Press, 1979), 2 vols.

It is simply not true that historians have wilfully ignored the role of printed books in shaping social forces. Eisenstein's core argument, that the printing press accelerated the dissemination of information and increasingly standardised it, is an aged and venerable one. G.R. Elton, writing in 1955, noted:

It is a commonplace, but none the less true for that: though without the printing press there might still have been a revival in literature, it would not have been so fruitful and lavish and would certainly have been less rapid in producing perfection.<sup>5</sup>

For another example, A.G. Dickens's *The English Reformation* (first published in 1964, and exactly the sort of book Eisenstein based her research on) devotes considerable space to discussing the effect of printed books, in particular bibles, prayer-books and prymers. It is not a 'general survey' of the kind that Eisenstein seeks to provide, but it does suggest that more attention has been paid to the 'communications shift' than Eisenstein would have us believe.<sup>6</sup>

By the 1970s, when Eisenstein sat down to expand her monograph-sized journal articles into a book, it was not so much that historians were blind to the effects of the printing press but that they had fresher fish to fry.<sup>7</sup> The prevailing mood of the period was that literate elites (and therefore printed books) had been done quite thoroughly, and that it was time to consider the lower orders of society.

Eisenstein's disdain for 'history from below' is not merely old-fashioned. It creates a vast array of difficulties for her argument. She is careful to add 'not exclusively' when announcing her intention to concentrate on 'already literate elites', but this disclaimer only exacerbates the problem: where exactly is this theoretical line that is usually kept within, but sometimes not? Who were these elites? When does Eisenstein move beyond them?

I have already mentioned the difficulty with 'orators and men of letters'. A more general difficulty (which does not seem to have occurred to Professor Eisenstein at all, such is her devotion to McLuhanite principles) is that 'already literate elites' excludes, by definition, the emerging mercantile classes who were a major part of the target audience for printed books. When the discussion moves to the Protestant Reformation, the conundrums multiply: how far down the social scale did printed bibles (pre- and post-Luther) actually go, who went to war over them, and why? It seems crazy to suggest that economic matters were not uppermost in the minds of most of the peasants who rebelled in 1524; and it is unlikely that the motives of the aristocrats who became involved were exclusively theological.<sup>8</sup>

In addition to the theoretical problems it poses, Eisenstein's peculiar focus leads her to misread much of her source material. As Peter Laslett put it, 'she is wall-eyed . . . to an extent which the truly eminent historian could not afford to be'.<sup>9</sup>

All historians, being creatures of flesh and blood, have their biases, their obsessions, their hobby-horses. The trouble with Eisenstein's hobby-horse is that it has run completely amok and done itself some nasty injuries. For someone bent on correcting others she is careless in the extreme. Her work is well annotated, so that anyone reading her book is (theoretically) in a position to determine the validity of her assertions; but her treatment of sources, both those she sets up as opponents

and those from whom she borrows supportive anecdotes, does not achieve the standards one would expect of a professional historian.

Perhaps the most repellent aspect of Eisenstein's book, and the one that does most to undermine her denial of 'technological determinism', is her constant cavilling with other historians. Her targets are many and varied: they range from the long superseded (Burckhardt and Weber), through opinionated amateurs (Arthur Koestler, Marshall McLuhan), to contemporary social historians (Peter Laslett, Keith Thomas).<sup>10</sup> Nicolas Barker defended these assaults on the ground that '*The Printing Press as an Agent of Change* is not primarily a book about history but about the way history is written'; and D.P. Walker considered them 'a fault on the right side, since such authors are often extremely influential, especially on the young'<sup>11</sup> — valid in relation to Marshall McLuhan, perhaps, but hardly applicable to Burckhardt and Weber!

The treatment of Weber (p.378ff) is very odd. It is strange that a professional historian writing in the 1970s should devote so much energy to a critique of a book published in 1905 (and heavily criticised even then), and that such a writer — with such a taste for secondary sources — should be (apparently) unaware of later elaborations of Weber's thesis, in particular the work of R.H. Tawney.<sup>12</sup> Stranger still, having discredited Weber so thoroughly, Eisenstein continues in a direction suggested by him and reaches the Tawneyesque conclusion that 'technical publication was spurred . . . by love of God *and* Mammon' on the part of those printers in Protestant countries who gained commercial advantage from the political restraints placed on their counterparts in Catholic countries (p.660).

Eisenstein's discussion of the work of her contemporaries is also marred. To be blunt, she persistently misrepresents any case that is not her own. Hugh Trevor-Roper and Keith Thomas are summarily dismissed (pp.433, 436-67) for 'dismissing' the effects of print in their discussions of the 'witch-craze' of the sixteenth century. Thomas, at least, deserves gentler handling than Eisenstein is prepared to give: his argument is long and complex, and cannot be adequately summarised here, but it should be noted that his reasons for looking beyond the dissemination of the *Malleus Maleficarum* are many and sound. Among the 'intellectual' factors Thomas considers are the wider religious crises of the period, and the associated rise of demonology (of which the *Malleus* itself was a symptom); but principally he 'dismisses' printed books because he is concerned to demonstrate that the English witch-craze was firmly rooted in popular beliefs and practices that preceded the printing of the *Malleus Maleficarum*, or the Bible for that matter. To argue that printed books were the critical factor in the witch-craze is to argue that it was 'a campaign led by clerics and lawyers against the instincts of ordinary people', and there is abundant evidence that it was not.<sup>13</sup> Eisenstein's focus on 'literate elites' prevents her from giving an adequate account of phenomena involving other sections of society; worse, it prevents her from acknowledging the validity of studies with a focus different from her own.

Thomas has since published another book about changing world-views in the early-modern period, and this also (implicitly) discounts the role of the printing press, *per se*:

What was important about the early modern naturalists was that they developed a novel way of looking at things, a new system of classification . . . which was more detached, more objective, less man-centred than that of the past.<sup>14</sup>

Eisenstein's cavalier treatment of her source material extends even to writers who are not, as such, advancing arguments incompatible with hers. Sometimes she fudges details to strengthen her own case, as in the anecdote of the eleventh-century scholars who were perplexed by Boethius's allusion to the interior angles of a triangle: 'after consulting Fulbert', Eisenstein tells us, they 'were none the wiser' (p.497, n.133). R.W. Southern, from whom Eisenstein borrowed the story, tells it a little differently:

They had been reading some of the books of logic which were then becoming part of the school curriculum, and . . . found remarks which baffled them. Boethius . . . had mentioned that the interior angles of a triangle are equal to two right angles . . . Reginbald had formed the view that they were the angles produced by a line dropped from one of the angles to the opposite side of the triangle . . . He claimed . . . he had finally convinced Fulbert by his arguments.<sup>15</sup>

Reginbald was incorrect, and Fulbert was unable to correct him, that much is true in Eisenstein's account; but her version implies passive bewilderment on the part of the schoolmen, rather than the quite aggressive engagement with the texts available to them portrayed by Southern. (Southern also indicates that books were not quite so scarce in the eleventh century as Eisenstein would have us believe.) And it is only fair to add that Galileo (as Eisenstein herself tells us, pp.620, 631) was even more thoroughly baffled by Kepler: he had the book, but he never read it. The presence or absence of a book tells us next to nothing about the dissemination of the ideas contained in it. In this context the question of whether Reginbald was right or wrong is irrelevant: his scribal culture was transmitting ideas to him, and he was actively engaged in trying to make sense of them. If we juxtapose these two anecdotes, Reginbald emerges as a more conscientious, critically astute scientist than Galileo!

Another story to suffer in the retelling is that of the 'map . . . placed in a warehouse "secretly and well wrapped so that no man could see it"' (p.483). Eisenstein implies that it was hidden away to prevent copies being made and the 'corruption of data'. As her source tells it,<sup>16</sup> there were several maps, and they were wrapped up and stored away because the merchant who commissioned them intended to present them as gifts to rulers of the countries he had to pass through: the merchant was preserving their political value, not the integrity of their data!

There are other misreadings which seem to stem from simple carelessness. E.P. Thompson is taken as suggesting that religious nonconformism 'entered into English Jacobinism' in the late eighteenth century (p.352, n.172), whereas his point is that particular features of the Dissenting tradition 'assumed new significance after 1790'.<sup>17</sup> Elsewhere, Eisenstein seems unaware of the connotations that 'levelling' had for Restoration intellectuals (p.669) and completely baffled by the intricacies of

Interregnum and Restoration politics generally (pp.681-2); and the kindest remark one can make about her reading of Defoe's assignment of a spiritual value to book-keeping (p.384) is that it is certainly ingenious.<sup>18</sup>

Eisenstein's decision to focus on 'monographic literature' is perhaps partly responsible for these problems, in that the ultimate sources of her information remain perpetually at at least one remove.<sup>19</sup> It also creates some elaborate effects, as when she quotes Browne's *Religio Medici* as quoted (verbatim) by Basil Willey (p.471) and then solemnly includes both in her 'bibliographical index'; or when she quotes Endicott discussing Thorndike discussing Conrad Gesner (p.483), not in a scholarly monograph but in an introduction to Browne, in order to savage Endicott's use of the word 'simple'.

These matters, considered individually, are of little consequence. The point is their sheer abundance. I have identified only a handful of errors and incongruities; other reviewers have revealed many more. Anthony Grafton, for instance, demonstrates that the 'new historical sense', on which the argument of Eisenstein's huge chapter on 'the two phases of the Renaissance' depends, was beginning to emerge well before the advent of mechanised book production.<sup>20</sup>

*The Printing Press as an Agent of Change* is simply not a reliable source of information; and this unreliability taints the many interesting things Eisenstein has to say. Was I impressed by her observation that Luther's use of Gothic type for his Bible 'conformed with Italian humanist practices (by using non-classical lettering for a vernacular theological work)' (p.206), or that Kepler's generation 'had to choose between three different theories' whereas Copernicus was 'fortunate to gain access to one' (p.629), merely because of my own ignorance in these areas? Too many reviewers (this one included) have found good things in this book only when it delves into subjects of which they know little or nothing for me to be entirely comfortable in taking up any of Eisenstein's ideas.

The book fails, ultimately, to account for the changes it seeks to describe because it radically oversimplifies the processes involved, and because it presents a distorted picture of the culture that underwent those changes.

Eisenstein denies that her intention was to produce a 'monocausal interpretation', but it is difficult to see what factors other than technological capacity she takes into account. Her discussion of the 'transformation of the book of nature' (vol. 2), does include a nod towards politics (the Dutch Wars of Independence, pp.636ff), economics (the Catholic Index of 1616 as a commercial opportunity for printers in Protestant countries, p.660) and psychology (Newton's shyness, p.634), but each of these factors is ruthlessly subordinated to technology. Indeed, shortly before discussing the role of Newton's personality, Eisenstein rules that 'it is really beside the point whether Copernicus was timid and devious or Kepler frank and bold': 'the flow of information', she insists, 'had been reoriented to make possible an unprecedented cognitive advance' (p.628).

Reginbald's encounter with Euclid, and Galileo's non-encounter with Kepler, let alone Petrarch's emendations of Livy,<sup>21</sup> should make us wary of identifying a direct causal link between technological innovation and social change. It should also

prevent us confusing the presence of books with their use.<sup>22</sup> It is not, after all, what we look at but what we see, not the tools available to us but our use of them, that really matters.

The printing press did make a significant difference to book production. At the very least, the new technology increased the speed at which books could be produced. It also had the theoretical capacity to produce an unlimited number of identical copies of any given work. In determining the extent to which this new technology changed things, though, we have to examine the methods it superseded. Eisenstein's argument hinges on the conditions of 'scribal' culture; and on the capacity of scribal methods of book production.

*The Travels of Sir John Mandeville* circulated widely in manuscript before the advent of print (some 250 copies survive), and the variations among the different 'versions' tend to support Eisenstein's contentions about the relative fluidity of texts in a scribal culture:<sup>23</sup> before proceeding, though, we should note that it was widely circulated and that the author not only had access to, but made creative use of, a considerable number of other books.<sup>24</sup>

The Duke of Bedford's propaganda campaign in Normandy in the 1420s is further evidence that scribal culture could, when pressed, be reasonably efficient at transmitting 'information': in 1426, the campaign was extended to England and Lydgate's translation survives in an extraordinary number of copies, no less than forty-six, many of which show signs of being posted as bills or school texts to be learned by heart.<sup>25</sup>

Marcel Thomas, in his brief essay on manuscripts in *The Coming of the Book*, cites manuscript 'editions' of up to 400 copies, given a small and very popular book, and 200 copies of other works.<sup>26</sup> Given that editions of between 100 and 300 were the norm during the first few decades of printing,<sup>27</sup> it is difficult to substantiate Eisenstein's claims of 'revolution' and 'transformation'. By the early sixteenth century, it is true, printers were finding that unit costs were minimised in editions of about 1,500, and editions of between 500 and 2,000 became the norm,<sup>28</sup> but this is hardly evidence for the transformation overnight of an entire culture.

Indeed, the fact that the early printers' decisions were governed by such grubby, unromantic factors as 'unit costs' is a salutary reminder that the early printing industry did not operate in a vacuum. The printing press may have been depicted in later years as descending from the heavens in the company of angels, but clearly a number of factors favoured its adoption in mid-fifteenth-century Europe that had not been present when similar technology became available in eleventh-century China.<sup>29</sup> Chief among these must surely be the great intellectual 'revival' of the preceding century-and-a-half, attended by the establishment of so many new universities, and the rise, during this same period, of what can be rather crudely described as an urban middle-class: people with newly acquired economic power in search of political influence over, and cultural acceptance by, the established elite. (To these we should add the emergence of a commercially viable papermaking industry — another 'change' that preceded Eisenstein's 'agent'.)

'Publication' of a kind was perfectly feasible before the advent of the printing press, and it took more than two centuries for the new technology to completely supersede scribal methods of book production. Christopher Hill, drawing heavily on J.R. Jacob, discusses the circulation in manuscript of Stubbe's *Rise and Progress of Mahometanism* during the 1660s and 1670s and suggests that 'intellectual anti-Trinitarianism' may have been quite widespread during this period<sup>30</sup> — from which we might predict the circulation of other 'atheistical' manuscripts. Harold Love has shown that 'scribal publication' was alive and well in seventeenth-century England, and indeed raises the intriguing possibility that Shakespeare may have published play scripts in manuscript.<sup>31</sup>

Perhaps we should remind ourselves at this point that books, printed or manuscript, were not the primary means of transmitting information in the seventeenth century. Whether or not Shakespeare published his plays in manuscript, he published them first and foremost in performance: publication of the script *as a book* was for Shakespeare and most of his contemporaries a secondary activity, an extra money-spinner, perhaps rather like the sale of programme notes today. It was certainly lucrative, but we can only speculate as to how many of the people who bought these play scripts sat down and read them cover-to-cover. The point I am trying to make is that a century and more after Caxton English society, even the literate sector of it, was by no means 'print-based'. Even Jonson, to judge by the problems with Lorenzo Senior and Junior in the 1601 Quarto of *Every Man in his Humour*, seems early in his career to have been oblivious to the different demands of the study and the stage on a text.<sup>32</sup>

The theatre is a medium for the broadcast of information, and until very recently the information it broadcast was typically delivered to it in manuscript form. There seem, generally, more continuities than disjunctions throughout the period of Eisenstein's 'unacknowledged revolution': whatever the reasons for the emergence of professional theatre groups in the sixteenth century,<sup>33</sup> it is difficult to assign any significant role to the change in techniques of book production. Even if we say that the emergent middle classes discovered the dramatists of classical antiquity through printed books, and subsequently wanted to see these (secular-pagan) plays performed, the link with book production technology remains tenuous: we still have to assign a critical role to the complex of social and economic factors that caused the emergent classes to develop a preference for secular drama over passion plays and the like.

It seems reasonable to conclude that the difference made by the invention of movable type was one of degree, not kind. If we concede that there was a growing demand for books in the early fifteenth century, we must also concede that attitudes towards books — and ways of thinking about the world in general — were undergoing a shift at this time; and therefore we must conclude that, in one sense at least, the technological 'response' to this growing demand was incidental. The new technology may have accelerated the process of change, as its own development accelerated, but the changes that were occurring would still have occurred whatever the technology available.<sup>34</sup> There is a point at which it ceases to be meaningful to separate the two — *because* the technology itself was part of the change, subject to

the same social, political and economic forces as any other manifestation of the process.

The occurrence of two phenomena in close succession does not mean that there is a causal relationship between them. During the nineteenth century a print-based culture displaced (or at least subjugated) a number of oral-scribal cultures around the world, but possession of the printing press was not the decisive factor.

In 1983, Eisenstein published an abridged version of her work, under the title *The Printing Revolution in Early-Modern Europe*. This volume attempted to meet some of the more frivolous criticisms of its predecessor: whole sections of the text were simply omitted, and the book was generously illustrated. One plate that certainly earned its place was the title page of Bacon's *Instauratio Magna*. Eisenstein interprets it figuratively: "sailing beyond the pillars of Hercules" was associated with the advancement of learning . . . Overseas voyages were linked to an expansion of data pools' (p.259). Perhaps it would have been easier to say that developments in ship-building led to longer and more numerous 'overseas voyages', that these voyages contributed to a gradual shift in the European world-view — an expansion of consciousness if you like — and the physical voyage therefore became associated with, and the emblematic representation of, the intellectual one. A less elaborate reading of her evidence may have allowed Eisenstein to arrive at a more holistic, more organically complex, understanding of it.

An eight-hundred page book with a huge bibliography cannot be all bad. Elizabeth Eisenstein does have some interesting things to say about the effects of the adoption of the printing press on European intellectual life. She is still worth reading; but every statement she makes must be treated with extreme caution.<sup>35</sup>

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## NOTES

1. The discussion of the contrast between 'orators' and 'men of letters' (pp.131-2), and the subsequent assertion that 'the shift in communications may have changed the sense of what it meant to participate in public affairs', is particularly confusing: is she still limiting the discussion to literate elites? If so, were they not 'dispersed' as much by the conditions of scribal culture as by the 'new' print-based culture? If the discussion has broadened to include the lower classes, 'participation in public affairs' seems anachronistic — especially as the book 'stops short in the age of the wooden hand press' (p.704). In any case, the argument is supposed to be about the change from scribal to mechanical book production, not about books versus other media.
2. Review, *Renaissance and Reformation* n.s.5(2), 1981, p.98.
3. For a checklist of published reviews, see Peter F. McNally (ed), *The Advent of Printing: Historians of Science Respond to Elizabeth Eisenstein's The Printing Press as an Agent of Change* (Montreal: McGill University Graduate School of Library and Information Studies, 1987), pp.5-7.
4. Some examples: John Putnam Demos, *Entertaining Satan: Witchcraft and the Culture of Early New England* (New York: Oxford University Press, 1982); Antonia Fraser, *The Weaker Vessel: Woman's Lot in Seventeenth-Century England* (London: Methuen, 1985); Alan Macfarlane, *Marriage and Love in England: Modes of Reproduction 1300-1840* (Oxford: Basil Blackwell, 1986); Samuel Pyeatt Menefee, *Wives for Sale: an Ethnographic Study of British Popular Divorce* (Oxford: Basil Blackwell, 1981); Keith Thomas, *Religion and the Decline of Magic: Studies in Popular Beliefs in Sixteenth- and*



- Seventeenth-Century England* (Harmondsworth: Penguin, 1978). None of these writers pay much attention to 'changes wrought by print culture'. Menefee, indeed, explicitly discounts the role of print: 'In considering possible sale advertisements, a husband was faced with a variety of options. Rarest . . . was use of the newspaper. . . . Another option . . . was to post a notice of intent to sell. . . . A written notice was probably preferred to printing because of its ease and the savings in cost' (pp.75-6). Demos (p.98) indicates that, in seventeenth-century New England, accounts of witchcraft were typically circulated in manuscript, not print. Two recent volumes which do emphasise the role of the printing press, with varying success, are Gerald P. Tyson and Sylvia S. Wagonheim (eds), *Print and Culture in the Renaissance: Essays on the Advent of Printing in Europe* (Newark: University of Delaware Press, 1986) and Roger Chartier (ed), *The Culture of Print: Power and the Uses of Print in Early Modern Europe* (Cambridge: Polity Press, 1989).
5. *England Under the Tudors* (London: Methuen, 1962), p.433.
  6. At the risk of invoking the shade of Macaulay's schoolboy, it may be added that school textbooks commonly put forward gunpowder, the mariner's compass and the printing press as formative influences on the emergence of modern Europe. Pitched at a similar level, Chris Brazier in the *New Internationalist* 'History of the World' issue (no.196, June 1989) notes the 'exciting proliferation' of learning that 'printing and paper' made possible (p.20) but does not develop this theme further.
  7. Lawrence Stone's *The Causes of the English Revolution 1529-1642* (London: Routledge & Kegan Paul, 1972), for example, although considering 'new ideas and values', is silent on the subject of movable type because so many other political and economic factors were so much more significant direct 'causes' of the phenomenon in question.
  8. I know very little about this (or any other) period in German history, and reading Eisenstein did not greatly enlighten me. The essays collected in Bob Scribner and Gerhard Benecke (eds), *The German Peasant War 1525: New Viewpoints* (London: Allen & Unwin, 1979) provide a much more extensive discussion.
  9. *Renaissance Quarterly* 34(1), Spring 1981, p.84.
  10. Not all of her enemies have names: she chides unspecified Marxists for daring to discuss 'modes of production' without examining technology (pp.389-90), but it is Eisenstein who has missed the point. 'Mode of production' – as distinct from means – refers to the economic and political structures that determine the uses to which the available technology is put (and for that matter the technological options that are actually adopted).
  11. Nicholas Barker, 'Spreading the word', *Times Literary Supplement* 4186, 24 June 1983, p.679; D.P. Walker, 'The power of the press', *New York Review of Books* 26(16), 25 Oct 1979, p.45.
  12. *Religion and the Rise of Capitalism: a Historical Study* (first published 1926) is a book students of the early-modern period might reasonably be expected to encounter in their undergraduate years. Tawney was not entirely heedless of the impact of printing on the dissemination – and preservation – of information: 'when asked about "the sufferings of the peasantry in the sixteenth century", [he] is said to have boomed back, "The sufferings of the peasantry in the sixteenth century are due to the invention of printing"' (Christopher Hill, *A Turbulent, Seditious, and Factious People: John Bunyan and his Church* (Oxford: Oxford University Press, 1988), p.64).
  13. *Religion and the Decline of Magic*, pp.542-51, also chapters 15-17.
  14. *Man and the Natural World: Changing Attitudes in England 1500-1800* (Harmondsworth: Penguin, 1984), p.52.
  15. *The Making of the Middle Ages* (London: Hutchinson, 1967), p.193.
  16. Iris Origo, *The Merchant of Prato: Francesco di Marco Datini*, rev. ed. (Harmondsworth: Penguin, 1963), p.99. In these circumstances it is mere pedantry to add that Origo's source was not 'Datini's journal' but correspondence, between two other merchants, held in the Datini family archives.
  17. *The Making of the English Working Class* (Harmondsworth: Penguin, 1980), p.51. Christopher Hill's *The World Turned Upside Down: Radical Ideas During the English Revolution* (Harmondsworth: Penguin, 1972) remains the outstanding study of seventeenth-century English radicalism: part of its argument is that many of the ideas of the 1640s survived the Restoration, to resurface in the eighteenth century (see p.379). Eisenstein acknowledges Hill's 'heartening encouragement' (p.xix) but, despite some quotes from it, does not appear overly familiar with his work. Are he and Thompson among the unnamed Marxists referred to earlier?
  18. Defoe presumably received the idea in question, and made use of it, in a 'secularized Puritan' context: that the idea may have originated in Papist Italy some two centuries earlier is just not relevant to the use made of it by Defoe and his 'secularized Puritan' audience.
  19. And, as several reviewers pointed out, the decision to spare oneself the labour of 'archival research' does not render original sources completely inaccessible: facsimiles of manuscripts and incunabula are widely available, and collections of 'documents' are standard fare in undergraduate history

- courses. Eisenstein might herself be accused of overlooking some important consequences of the 'printing revolution'.
20. 'The importance of being printed', *Journal of Interdisciplinary History* 11(2), Autumn 1980, pp.282-4. Perhaps we should add that 'viewing the past from a fixed distance', i.e. developing an awareness of chronology and a sensitivity to anachronism, was not characteristic of the intellectual life of Elizabethan England – and remains difficult for schoolchildren and film-makers.
  21. Grafton, 'The importance of being printed'. Note also the arguments of Jesse M. Gellrich in *The Idea of the Book in the Middle Ages: Language Theory, Mythology, and Fiction* (Ithaca: Cornell University Press, 1985) about the 'destabilisation' of the text by creative writers of the pre-print era – the crucial point being, in this context, that new ways of thinking emerged before the new technology.
  22. A fascinating study of the reading of a 'non-intellectual' in early print-culture Europe is Carlo Ginzburg's *The Cheese and the Worms: the Cosmos of a Sixteenth Century Miller* (Harmondsworth: Penguin, 1982): the aggression with which Menocchio read the texts that came into his hands, and the tenacity with which he defended his readings, is a case in itself for not confining studies of 'cultural transformation' to intellectual elites.
  23. Cf. Lucien Febvre and Henri-Jean Martin, *The Coming of the Book: the Impact of Printing 1450-1800* (London: New Left Books, 1976), p.28; and Sir John Mandeville, *The Travels* (Harmondsworth: Penguin, 1983), p.30.
  24. Mandeville, *Travels* pp.11-12 & 19-20. Few modern novelists, I would suggest, read much more for any particular work than 'Mandeville' seems to have done.
  25. J.R. Lander, *Conflict and Stability in Fifteenth-Century England*, 3rd ed. (London: Hutchinson, 1977), p.62.
  26. Febvre and Martin, *Coming of the Book*, p.28. See also Grafton, 'The importance of being printed', pp.273-4.
  27. Febvre and Martin, *Coming of the Book*, p.217; Philip Gaskell, *A New Introduction to Bibliography* (Oxford: Clarendon, 1972), pp.160-1.
  28. Gaskell, *New Introduction*, pp.161-2.
  29. See Febvre and Martin, *Coming of the Book*, pp.75-6: movable type was introduced in Korea in the thirteenth century, and was the standard method of producing official documents during the fifteenth century.
  30. *The Experience of Defeat: Milton and Some Contemporaries* (Harmondsworth: Penguin, 1985), pp.259-64.
  31. 'Scribal publication in seventeenth-century England', *Transactions of the Cambridge Bibliographical Society* 9, 1987, p.139.
  32. Ben Jonson, *Every Man in His Humour: a Parallel-Text Edition of the 1601 Quarto and the 1616 Folio*, ed. J.W. Lever (London: Edward Arnold, 1972), p. xxvii.
  33. Richard Southern has argued, perhaps over-elaborately (in *The Medieval Theatre in the Round: a Study of the Staging of The Castle of Perseverance and Related Matters*, 2nd ed. (London: Faber, 1975)), that semi-professional travelling players carried The Castle of Perseverance the length and breadth of England, leaving huge earthworks in their wake, in the early fifteenth century.
  34. That so many attempts were being made during the early fifteenth century to mechanise book production is some evidence that the 'cultural transformation' was well under way before the development of movable type: and, as S.H. Steinberg points out (*Five Hundred Years of Printing*, 3rd ed. rev. (Harmondsworth: Penguin, 1974), p.22), it was the particular features of Gutenberg's invention – the relative ease with which errors could be corrected – that led to its widespread adoption ahead of the alternative solutions being developed concurrently. If we are to claim 'specialness' for the fifteenth-century printing press, I think we are bound to do so for all other developments in the history of book production that involved a break with existing technology – photo-lithography, for instance, and desk-top publishing as well.
  35. At the 1984 McGill University symposium on 'The advent of printing' Eisenstein's opponents scrutinised her methodology: her supporters did not. Philip M. Teigen found in *The Printing Press as an Agent of Change* 'a confusion of tongues' (McNally, *Advent of Printing*, p.9), a failed attempt at eclecticism; William R. Shea attacked Eisenstein's 'sweeping generalizations', and remarked that Copernicus' ideas gained acceptance only after the invention of the telescope ('if Galileo had not turned his eye-glass to the heavens . . . the presses might well have groaned in vain' – *ibid.*, p.19). Susan Sheets-Pyenson and Lewis Pyenson applied Eisenstein's ideas to nineteenth- and twentieth-century scientific advances but did not address any of the points on which her work has been found wanting.

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