### THE PRINTING PRESS AS AN AGENT OF CHANGE

Communications and cultural transformations in early-modern Europe

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Communications and cultural transformations in early-modern Europe

# Volumes I and II

ELIZABETH L. EISENSTEIN



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## PREFACE

I do ingenuously confess that in attempting this history of Printing I have undertaken a task much too great for my abilities the extent of which I did not so well perceive at first...

### Joseph Ames, June 7, 1749<sup>1</sup>

This book has been composed over the course of some fifteen years. Its inception goes back to 1963 when I read Carl Bridenbaugh's presidential address to the American Historical Association. This address which was entitled 'The Great Mutation' belonged to an apocalyptic genre much in vogue at that time (and unfortunately still ubiquitous).<sup>2</sup> It raised alarms about the extent to which a 'run-away technology' was severing all bonds with the past and portrayed contemporary scholars as victims of a kind of collective amnesia. Bridenbaugh's description of the plight confronting historians; his lament over 'the loss of mankind's memory' in general and over the disappearance of the 'common culture of Bible reading' in particular seemed to be symptomatic rather than diagnostic. It lacked the capacity to place present alarms in some kind of perspective - a capacity which the study of history, above all other disciplines, ought to be able to supply. It seemed unhistorical to equate the fate of the 'common culture of Bible reading' with that of all of Western civilization when the former was so much more recent - being the by-product of an invention which was only five hundred years old. Even after Gutenberg, moreover, Bible reading had remained uncommon among many

<sup>&</sup>lt;sup>1</sup> Dibdin, ed. Typographical Antiquities, preface of 1749 by Joseph Ames, 1, 12. <sup>2</sup> Bridenbaugh, 'The Great Mutation.' Other essays on the same theme appearing at the same time are noted in Eisenstein 'Clio and Chronos.'

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highly cultivated Western Europeans and Latin Americans who adhered to the Catholic faith.

In the tradition of distinguished predecessors, such as Henry Adams and Samuel Eliot Morison, the president of the American Historical Association appeared to be projecting his own sense of a growing distance from a provincial American boyhood upon the entire course of Western civilization.<sup>3</sup> As individuals grow older they do become worried about an unreliable memory. Collective amnesia, however, did not strike me as a proper diagnosis of the predicament which the historical profession confronted. Judging by my own experience and that of my colleagues, it was recall rather more than oblivion which presented the unprecedented threat. So much data was impinging on us from so many directions and with such speed that our capacity to provide order and coherence was being strained to the breaking point (or had it, perhaps, already snapped?). If there was a 'run-away' technology which was leading to a sense of cultural crisis among historians, perhaps it had more to do with an increased rate of publication than with new audio-visual media or even with the atom bomb?

While mulling over this question and wondering whether it was wise to turn out more monographs or instruct graduate students to do the same - given the indigestible abundance now confronting us and the difficulty of assimilating what we have - I ran across a copy of Marshall McLuhan's The Gutenberg Galaxy.4 In sharp contrast to the American historian's lament, the Canadian professor of English seemed to take mischievous pleasure in the loss of familiar historical perspectives. He pronounced historical modes of inquiry to be obsolete and the age of Gutenberg at an end. Here again, I felt symptoms of cultural crisis were being offered in the guise of diagnosis. McLuhan's book itself seemed to testify to the special problems posed by print culture rather than those produced by newer media. It provided additional evidence of how overload could lead to incoherence. At the same time it also stimulated my curiosity (already aroused by considering Bibleprinting) about the specific historical consequences of the fifteenthcentury communications shift. While studying and teaching aspects of

<sup>&</sup>lt;sup>3</sup> Henry Adams, The Education, p. 5, felt cut off from the eighteenth century by the opening of the Boston and Albany Railroad, the first Cunard steamer and the advent of the telegraph. Samuel Eliot Morison Vistas in History, p.24, saw his generation being cut off from preceding ones 'by the internal combustion engine, nuclear fission and Dr Freud.'

<sup>\*</sup> McLuhan's book was brought to my attention by Frank Kermode's 1963 Encounter review: 'Between two Galaxies.'

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the history of Western Europe over the course of several decades, I had long been dissatisfied with prevailing explanations for the political and intellectual revolutions of early-modern times. Some of the changes to which McLuhan alluded might well be helpful for providing more satisfactory solutions to long-standing problems and at least seemed to offer a possible way out of some circular arguments and inconclusive debates. But McLuhan's oracular pronouncements did not provide an adequate starting point. A large number of questions about the actual effects of the advent of printing would have to be answered before other matters could be explored. What were some of the most important consequences of the shift from script to print? Anticipating a strenuous effort to master a large and mushrooming literature, I began to investigate what had been written on this obviously important subject. As I say in my first chapter, there was not even a small literature available for consultation. Indeed I could not find a single book, or even a sizeable article which attempted to survey the consequences of the fifteenth-century communications shift.

While recognizing that it would take more than one book to remedy this situation, I also felt that a preliminary effort, however inadequate, was better than none, and embarked on a decade of study – devoted primarily to becoming acquainted with the special literature (alas, all too large and rapidly growing) on early printing and the history of the book. Between 1968 and 1971 some preliminary articles were published to elicit reactions from scholars and take advantage of informed criticism before issuing a full-scale work. The reader who has seen these articles will be familiar with some portions of the first three chapters, although each has been extensively revised. Fresh content increases as the chapters progress; most of chapter 4 and all of the rest appear in this book for the first time.<sup>5</sup>

My treatment falls into two main parts. Part 1 focuses on the shift from script to print in Western Europe and tries to block out the main features of the communications revolution. Parts 2 and 3 deal with the relationship between the communications shift and other developments conventionally associated with the transition from medieval to early

<sup>&</sup>lt;sup>5</sup> Preliminary articles for chaps. 1, 2, and 3 respectively are Eisenstein, 'The Position of the Printing Press in Current Historical Literature'; 'Some Conjectures about the Impact of Printing on Western Society and Thought'; and 'The Advent of Printing and the Problem of the Renaissance.' A thirty-page abridgement of parts of chap. 4 appeared as 'L'Avènement de l'Imprimerie et la Réforme.'

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modern times. (I have concentrated on cultural and intellectual movements, postponing for another book problems pertaining to political ones.) The last two parts thus take up familiar developments and attempt to view them from a new angle of vision. The first part, however, covers unfamiliar territory – unfamiliar to most historians, at least (albeit not to specialists in the history of the book) and especially exotic to this historian (who had previously specialized in the study of the French Revolution and early nineteenth-century French history).

While trying to cover this unfamiliar ground I discovered (as all neophytes do) that what seemed relatively simple on first glance became increasingly complex on examination and that new areas of ignorance opened up much faster than old ones could be closed. As one might expect from a work long-in-progress, first thoughts had to be replaced by second ones, even third thoughts have had to be revised. Especially when I was writing about the preservative powers of print (a theme assigned special importance and hence repeatedly sounded in the book), I could not help wondering about the wisdom of presenting views that were still in flux in so fixed and permanent a form. I am still uncertain about this and hope that my decision to publish at this point will not be misinterpreted. I have not reached any final formulation but have merely become convinced that beyond this provisional resting point, diminishing returns will set in.

It also should be noted at the outset that my treatment is primarily (though not exclusively) concerned with the effects of printing on written records and on the views of already literate élites. It is the shift from one kind of literate culture to another (rather than from an oral to a literate culture) that I have in mind when referring to an 'unacknowledged revolution.' This point needs special emphasis because it runs counter to present trends. When they do touch on the topic of communications, historians have been generally content to note that their field of study, unlike archeology or anthropology, is limited to societies which have left written records. The special form taken by these written records is considered of less consequence in defining fields than the overriding issue of whether any have been left. Concern with this overriding issue has been intensified recently by a doublepronged attack on older definitions of the field, emanating from African historians on the one hand and social historians dealing with Western

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civilization on the other. The former have had perforce to challenge the requirement that written records be supplied. The latter object to the way this requirement has focused attention on the behavior of a small literate élite while encouraging neglect of the vast majority of the people of Western Europe. New approaches are being developed – often in collaboration with Africanists and anthropologists – to handle problems posed by the history of the 'inarticulate' (as presumably talkative albeit unlettered people are sometimes oddly called). These new approaches are useful not only for redressing an old élitist imbalance but also for adding many new dimensions to the study of Western history. Work in progress on demographic and climatic change, on family structure, child rearing, crime and punishment, festivals, funerals and food riots, to mention but a few of the new fields that are now under cultivation, will surely enrich and deepen historical understanding.

But although the current vogue for 'history from below' is helpful for many purposes, it is not well suited for understanding the purposes of this book. When Jan Vansina, who is both an anthropologist and an historian of pre-colonial Africa, explores 'the relationship of oral tradition to written history' he naturally skips over the difference between written history produced by scribes and written history after print.<sup>6</sup> When Western European historians explore the effect of printing on popular culture they naturally focus attention on the shift from an oral folk culture to a print-made one.<sup>7</sup> In both cases, attention is deflected away from the issues that the following chapters will explore. These issues are so unfamiliar that some readers of my preliminary sketches jumped to the mistaken conclusion that my concerns were the same as Vansina's.

This misunderstanding, alas, is more easily explained than forestalled. For one thing, the advent of printing did encourage the spread of literacy even while changing the way written texts were handled by already literate élites. For another thing, even literate groups had to rely much more upon oral transmission in the age of scribes than they did later on. Many features which are characteristic of oral culture, such as the cultivation of memory arts and the role of a hearing public, were also of great significance among scribal scholars. Problems associated

- 6 Vansina, Oral Tradition, part 1, section 2, pp. 2 ff.
- 7 See e.g. Natalie Z. Davis' essay on 'Printing and the People.'

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with oral transmission thus cannot be avoided even when dealing with literate groups. Nevertheless the experience of the scribal scholar was different from that of his preliterate contemporaries and the advent of printing had a different effect on Latin-reading professors than on unlettered artisans. To leave out the former and consider only the latter is to lose a chance of helping to explain major intellectual transformations of early-modern times.

In dealing with these transformations one cannot ignore how printing spurred the spread of literacy. New issues posed by vernacular translation and popularization had significant repercussions within the Commonwealth of Learning as well as outside it. Nevertheless it is not the spread of literacy but how printing altered written communications within the Commonwealth of Learning which provides the main focus of this book. It is primarily concerned with the fate of the unpopular (and currently unfashionable) 'high' culture of Latin-reading professional élites. I have also found it necessary to be unfashionably parochial and stay within a few regions located in Western Europe.8 Thus the term print culture' is used throughout this book in a special parochial Western sense: to refer to post-Gutenberg developments in the West while setting aside its possible relevance to pre-Gutenberg developments in Asia. Not only earlier developments in Asia, but later ones in Eastern Europe, the Near East and the New World have also been excluded. Occasional glimpses of possible comparative perspectives are offered, but only to bring out the significance of certain features which seem to be peculiar to Western Christendom. Because very old messages affected the uses to which the new medium was put and because the difference between transmission by hand-copying and by means of print cannot be seen without mentally traversing many centuries, I have had to be much more elastic with chronological limits than with geographical ones: reaching back occasionally to the Alexandrian Museum and early Christian practices; pausing more than once over medieval bookhands and stationers' shops; looking ahead to observe the effects of accumulation and incremental change.

The developments covered in Parts 2 and 3, however, do not go

<sup>&</sup>lt;sup>8</sup> My earlier training and special interests have led to a preference for selecting French and English examples. I realize that there are rich yields to be found elsewhere in Western Europe (that German literature is especially large on the subject of a German invention, that Venetian pride has led to a scholarly industry focused on Venetian printers, etc.) but I have not managed to do more than scratch the surface of a few regions as it is.

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beyond the first two centuries of printing, with the story carried beyond Galileo's Trial only in order to see the Copernican Revolution completed and periodical publication embarked on, and to provide an appropriate prelude to Enlightenment thought. The age of Newton and Locke coincides with the interval when the leadership of the Republic of Letters is taken over from the great merchant publishers and scholar-printers by the editors of literary reviews such as Pierre Bayle and Jean LeClerc. The point at which the print shop gives way to the editorial office represents the passing of the heroic age of the masterprinter and forms an especially appropriate stopping-point for my book.

I am fond of Marc Bloch's dictum: 'The good historian is like the giant of the fairy tale... wherever he catches the scent of human flesh, there his quarry lies,'9 and I would have liked to underline the human element in my title by taking the early printer as my 'agent of change.' But although I do think of certain master printers as being the unsung heroes of the early-modern era and although they are the true protagonists of this book, impersonal processes involving transmission and communication must also be given due attention. In the end, practical considerations became paramount. I decided that cataloguing would be simplified if I referred to the tool rather than its user. Of course not one tool but many were involved in the new duplicating process. As I try to make clear in the first chapters, the term printing press in the context of this book serves simply as a convenient labelling device; as a shorthand way of referring to a larger cluster of specific changes entailing the use of movable metal type, oil-based ink, etc. My point of departure, in any case, is not one device invented in one Mainz shop but the establishment of print shops in many urban centers throughout Europe over the course of two decades or so.

One final comment on the title is in order: it refers to *an* agent not to *the* agent, let alone to *the only* agent of change in Western Europe. Reactions to some of my preliminary articles make it seem necessary to draw attention to these distinctions. The very idea of exploring the effects produced by any particular innovation arouses suspicion that one favors a monocausal interpretation or that one is prone to reductionism and technological determinism.

Of course disclaimers offered in a preface should not be assigned too much weight and will carry conviction only if substantiated by the

9 Bloch, The Historian's Craft, p. 26.

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bulk of a book. Still it seems advisable to make clear from the outset that my aim is to enrich, not impoverish historical understanding, and that I regard monovariable interpretations as antipathetic to that aim. It is perfectly true that historical perspectives are difficult to preserve when claims made for a particular technological innovation are pressed too far. But this means that one must exercise discrimination and weigh the relative importance of diverse claims. To leave significant innovations out of account may also skew perspectives. I am convinced that prolonged neglect of a shift in communications has led to setting perspectives ever more askew as time goes on.

As an agent of change, printing altered methods of data collection, storage and retrieval systems and communications networks used by learned communities throughout Europe. It warrants special attention because it had special effects. In this book I am trying to describe these effects and to suggest how they may be related to other concurrent developments. The notion that these other developments could ever be *reduced* to *nothing but* a communications shift strikes me as absurd. The way they were reoriented by such a shift, however, seems worth bringing out. Insofar as I side with revisionists and express dissatisfaction with prevailing schemes, it is to make more room for a hitherto neglected dimension of historical change. When I take issue with conventional multivariable explanations (as I do on several occasions) it is not to substitute a single variable for many but to explain why many variables, long present, began to interact in new ways.

Interactions of many kinds – between old messages and new medium, cultural context and technological innovation, handwork and brain work, craftsmen and scholars, preachers and press agents – crop up repeatedly in the chapters which follow. One friendly scholar suggested that I should take as my epigraph E. M. Forster's celebrated plea: 'Only connect !' It does seem suitable-to genre as well as content. For despite some analytical and critical portions, this is primarily a work of synthesis. It brings together special studies in scattered fields and uses monographs on limited subjects to deal with problems of more general concern.

Needless to say it has the defects as well as the virtues of any largescale synthetic work. It is based on monographic literature not archival research, and reflects very uneven acquaintance with relevant data. I have consulted specialists, sat in on seminars and colloquia and taken

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advantage of informed criticism wherever possible. Yet I cannot rule out the likelihood that I will blunder – either by relying on some authorities who are outdated or unsound, or by drawing incorrect inferences on my own. Nevertheless I am convinced that the dangers of neglecting this large and important topic far outweigh the disadvantages of my inevitably inadequate, necessarily tentative treatment. As I note in the following chapter, neglect by conscientious scholars has allowed the topic to go by default into incautious hands. Although Marshall McLuhan's work stimulated my historical curiosity, among many of my colleagues it has been counter-productive, discouraging further investigation of print culture or its effects. Concern with the topic at present is likely to be regarded with suspicion, to be labelled 'McLuhanite' and dismissed out of hand. I hope my book will help to overcome this prejudice and show that the topic is not incompatible with respect for the historian's craft.

During the long interval this work has been in progress, I have incurred more than the usual number of scholarly debts. Where my memory has not failed, contributors of special pieces of information have been thanked in footnote references. The following acknowledgements are limited to those who have furnished general guidance and instruction and support.

Among the small group of senior scholars who provided sustained encouragement, I owe a special debt to the late Crane Brinton. From the 1940s, when he supervised my dissertation, until shortly before his death he urged me to persist with research and writing despite other demands on my time. That this book was finally written is due, in no small measure, to the strong backing he provided when it was in an unpromising early phase. At a somewhat later stage, I was heartened by unexpected encouragement from Robert K. Merton, thanks in part to the good offices provided by Elinor Barber, who has taken an informed interest in my work throughout. I have also profited from many hours of conversation with J. B. Ross. The names of Natalie Z. Davis and Robert M. Kingdon appear in my annotations with sufficient frequency to indicate my heavy reliance on their special studies of sixteenth-century print culture. Both deserve additional thanks for the many other services they have performed. Margaret Aston helped me over the course of many years, by reading and commenting on the

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drafts that I sent her after our weekly meetings in the Folger Library ended and we had to resort to correspondence overseas.

For introducing me to some of the 'mysteries' of early printing and the history of the book I am grateful to Frederick Goff, who let me attend his informative seminar on incunabula at the Folger Library and to Rudolf Hirsch, who guided me around the rare book collection at the University of Pennsylvania, sent me articles and books and discussed controversial issues with remarkable amiability. John Tedeschi of the Newberry Library and Francis J. Witty of the Library Science department of The Catholic University of America provided me with many offprints, references and helpful advice.

For more than a decade I took full advantage of the opportunities extended to its readers by the Folger Shakespeare Library and feel especially indebted to its hard-working staff. At the Folger I sat in on a seminar given by A. G. Dickens, received helpful counsel from Paul O. Kristeller and had useful conversations with Jan van Dorsten. I am grateful to R. J. Schoeck who supervised research activities when I was there; to the Library's Directors: Louis B. Wright and O. B. Hardison; to Nati Krivatsky, Reference Librarian; to Letitia Yeandle, Curator of Manuscripts; and, above all, to the three staff members: Elizabeth Niemyer, Rachel Doggett and Sandra Powers, who cheerfully participated in my first seminar on early printers while teaching me more than I taught them.

For clarification of problems associated with the manuscript booktrade in Renaissance Italy I have turned repeatedly to Albinia de la Mare of the Department of Western Manuscripts at the Bodleian Library. She has generously shared with me her unparalleled knowledge of the world of Vespasiano da Bisticci and of the notaries who served him as scribes. Some of the 'secrets' of medieval codicology have been unlocked for me by Richard Rouse of the University of California, Los Angeles. He corrected several misconceptions and supplied me with useful studies I would not otherwise have seen. That I could take advantage of this expertise before completing the first part of my book was due to Elizabeth Kennan, who – as a friend and as a medievalist – has helped in many ways. My acquaintance with medieval studies has been further enriched by Mary M. McLaughlin.

For an opportunity to meet various luminaries of the Warburg Institute and for sharing with me his special knowledge of Renaissance

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Aristotelianism I owe much to Charles Schmitt. I am indebted to Paul Lawrence Rose for imparting to me the results of his research on the librarians and mathematicians of Renaissance Italy. Martin Lowry shared with me his work in progress on Aldus Manutius; Paul Grendler has kept me informed about his work on Venetian bookmen. Miriam Chrisman, John Elliott, Edmund Fryde, Donald Kelley, Benjamin Kohl, Nancy Roelker, Charles Nauert, Orest Ranum, Thomas Tentler, Charles Trinkaus are among the many historians of early-modern Europe who have helped me in diverse ways. Myron Gilmore, who guided the studies of several of those named above, has also helped me directly by supplying offprints and reacting promptly and positively to my requests for aid.

When working on the last part of the book, I received help from a different group of specialists, associated with the history of science and technology. I am particularly grateful to Robert Palter and Robert Westman for being faithful correspondents; checking early drafts, sending me relevant data and keeping me informed about current work. Owen Gingerich also deserves special thanks for enabling me to participate in a Copernican conference at the Smithsonian Institution and for supplying me thereafter with his own pertinent studies. Additional services were provided by William Wallace of The Catholic University who read and commented on a draft; by Uta Merzbach and D.J. Warner at the Smithsonian who helped me with mathematical and astronomical data; and by Francis Maddison of the Museum of the History of Science at Oxford. A chance to give a paper to Oxford scholars at a Linacre College seminar sponsored by Margaret Gowing was made possible through the kind offices of Christopher Hill, who has during the last decade provided heartening encouragement.

Although I was greatly assisted by the advice and support of those named above, I must naturally assume full responsibility for the contents of this book. I must also extend apologies to those contributors who have gone unmentioned because inadequate records were kept. I may be forgetful, but I am, nonetheless, truly grateful to every one who helped me.

In addition to aid from individuals, I owe much to institutional support, which came just when it was most needed, and enabled me to complete a final draft. By granting me a Fellowship for Independent Study and Research, the National Endowment for the Humanities

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provided the necessary incentive for spending six months of hard labor at a desk. The Rockefeller Foundation made it possible for me to spend a month as a scholar-in-residence at the Villa Serbelloni Conference and Study Center in Bellagio, Italy, where the concluding chapter was written. I am grateful to Joel Colton, director of the Humanities Division of the Foundation who alerted me to this opportunity and to Dr and Mrs William Olson, the resident Director of the Center and his wife, who did everything possible to make my stay enjoyable.

Several editors helped with the publication of both my preliminary articles and of this full-length book. For their acceptance of my early essays together with their tactful suggestions for revision, I am grateful to Trevor Aston, Hanna H. Gray, Richard Vann and Robert Webb. Responsibility for handling the book-length typescript from beginning to end was assumed by a single editor, whose present post is that of Publisher at the Cambridge University Press. Michael Black, who first came to my attention as an authority on early printed bibles, has exhibited remarkable patience and unflagging good humor over the course of many years of negotiations with a procrastinating author. He also obtained the services of N. Carol Evans to help with indexing. In completing both indexes, Clarissa Campbell Orr proved invaluable. The assistance of Andrew Brown and Maureen Leach was provided at the stage of copy-editing; Jane Majeski of the Cambridge University Press New York office cheerfully performed the thankless task of relaying messages overseas. For unexpected assistance with plans for a French edition I am much obliged to Philippe Ariès - who has been a remarkably sympathetic listener, stimulating conversationalist and helpful correspondent.

I am also indebted to those who typed and retyped several versions of a long manuscript. Over the course of some fifteen years I have relied on services cheerfully supplied by Phyllis Levine. She made herself available on short notice, and proved skillful in unravelling snarled footnotes and deciphering illegible scrawls. For help with the exacting work of retyping, proof reading, correcting, and checking for consistency, I have turned to Flora Symons, who has put in long hours of painstaking work on my typescript and relinquished more than one holiday trip to help me out.

In concluding with a note of thanks to members of my immediate family I regret that this procedure has become so conventional; that

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readers are likely to dismiss as superficial the very statements which are most deeply felt. In this instance, my feelings are stronger than my powers of expression. My husband and all three of my children contributed in different ways to shaping my thoughts and strengthening my determination to finish the book. My daughter, Margaret, who is pursuing graduate study in history and my son, Ted, who has cast type and operated hand presses, repeatedly refreshed my interest in work that was often on the verge of seeming stale. My husband's support of all my professional activities has been manifested for more than thirty years. It was never more helpful than after our oldest son's fatal stroke. Along with his sister and brother, John had taken a lively interest in my work-in-progress. Engaged in graduate study of neuro-biology, he was interested in the humanities as well as the sciences and valued clarity and precision in assessing writing styles. When he looked over an early version of one of my chapters, he expressed concern about excess verbiage and urged me to reduce what he described (by means of an equation) as the 'fog-count.' Had John lived, the 'fog-count' of this book would have been lower. His father's editorial help prevented it from becoming higher, and thus placed the reader as well as this author in Julian Eisenstein's debt.