

which “made it possible for man to accumulate experience and knowledge in a form that made easy transmission and maximum use possible.”⁴

Language is metaphor in the sense that it not only stores but translates experience from one mode into another. Money is metaphor in the sense that it stores skill and labour and also translates one skill into another. But the principle of exchange and translation, or metaphor, is in our rational power to translate all of our senses into one another. This we do every instant of our lives. But the price we pay for special technological tools, whether the wheel or the alphabet or radio, is that these massive *extensions* of sense constitute *closed* systems. Our private senses are not closed systems but are endlessly translated into each other in that experience which we call con-sciousness. Our extended senses, tools, technologies, through the ages, have been closed systems incapable of interplay or collective awareness. Now, in the electric age, the very instantaneous nature of co-existence among our technological instruments has created a crisis quite new in human history. Our extended faculties and senses now constitute a single field of experience which demands that they become collectively conscious. Our technologies, like our private senses, now demand an interplay and ratio that makes *rational* co-existence possible. As long as our technologies were as slow as the wheel or the alphabet or money, the fact that they were separate, closed systems was socially and psychically supportable. This is not true now when sight and sound and movement are simultaneous and global in extent. A ratio of interplay among these extensions of our human functions is now as necessary collectively as it has always been for our private and personal rationality in terms of our private senses or “wits,” as they were once called.

Hitherto historians of culture have tended to isolate technological events much in the way that classical physics dealt with physical events. Louis de Broglie, describing *The Revolution in Physics*, makes much of this limitation of the Cartesian and Newtonian procedures which are so near those of the historians using an individual “point of view” (p. 14):

Faithful to the Cartesian ideal, classical physics showed us the universe as being analogous to an immense mechanism which was capable of being described with complete precision by the localization of its parts in space and by their change in the course of time. ... But such a conception rested on several implicit hypotheses which were admit-

4 Leslie A. White, *The Science of Culture*, p. 240.

Locke sank into a swoon
The garden died
God took the spinning jenny
Out of his side.

The Lockean swoon was the hypnotic trance induced by stepping up the visual component in experience until it filled the field of attention. Psychologists define hypnosis as the filling of the field of attention by one sense only. At such a moment “the garden” dies. That is, the garden indicates the interplay of all the senses in haptic harmony. With the instressed concern with one sense only, the mechanical principle of abstraction and repetition emerges into explicit form. Technology is explicitness, as Lyman Bryson said. And explicitness means the spelling out of one thing at a time, one sense at a time, one mental or physical operation at a time. Since the object of the present book is to discern the origins and modes of the Gutenberg configuration of events, it will be well to consider the effects of the alphabet on native populations today. For as they *are* in relation to the phonetic alphabet, so we once *were*.

The interiorization of the technology of the phonetic alphabet translates man from the magical world of the ear to the neutral visual world.

|| J. C. Carothers, writing in *Psychiatry* (November, 1959) on “Culture, Psychiatry and the Written Word,” set forth a number of observations contrasting non-literate natives with literate natives, and the non-literate man with the Western man generally. He starts (p. 308) with the familiar fact that

by reason of the type of educational influences that impinge upon Africans in infancy and early childhood, and indeed throughout their lives, a man comes to regard himself as a rather insignificant part of a much larger organism – the family and the clan – and not as an independent, self-reliant unit; personal initiative and ambition are permitted little outlet; and a meaningful integration of a man’s experience on individual, personal lines is not achieved. By contrast to the constriction at

the intellectual level, great freedom is allowed for at the temperamental level, and a man is expected to live very much in the 'here and now,' to be highly extraverted, and to give very free expression to his feelings.

In a word, our notions of the "uninhibited" native ignore the utter inhibition and suppression of his mental and personal life which is unavoidable in a non-literate world:

Whereas the Western child is early introduced to building blocks, keys in locks, water taps, and a multiplicity of items and events which constrain him to think in terms of spatiotemporal relations and mechanical causation, the African child receives instead an education which depends much more exclusively on the spoken word and which is relatively highly charged with drama and emotion. (p. 308)

That is, a child in any Western milieu is surrounded by an abstract explicit visual technology of uniform time and uniform continuous space in which "cause" is efficient and sequential, and things move and happen on single planes and in successive order. But the African child lives in the implicit, magical world of the resonant oral word. He encounters not efficient causes but formal causes of configurational field such as any non-literate society cultivates. Carothers repeats again and again that "rural Africans live largely in a world of sound – a world loaded with direct personal significance for the hearer – whereas the Western European lives much more in a visual world which is on the whole indifferent to him." Since the ear world is a hot hyperesthetic world and the eye world is relatively a cool, neutral world, the Westerner appears to people of ear culture to be a very cold fish indeed.²

Carothers reviews the familiar non-literate idea of the "power" of words where thought and behaviour depend upon the magical resonance in words and their power to impose their assumptions relentlessly. He cites Kenyatta concerning love magic among the Kikuyu:

It is very important to acquire the correct use of magical words and their proper intonations, for the progress in applying magic effectively depends on uttering these words in their ritual order. ... In performing these acts of love magic the performer has to recite a magical formula.

2 See chapter on "Acoustic Space" by E. Carpenter and H. M. McLuhan in *Explorations in Communication*, pp. 65–70.

There were, in fact, two tendencies in Greece, one passionate, religious, mystical, other worldly, the other cheerful, empirical, rationalistic, and interested in acquiring knowledge of a diversity of facts.

The division of faculties which results from the technological dilation or externalization of one or another sense is so pervasive a feature of the past century that today we have become conscious, for the first time in history, of how these mutations of culture are initiated. Those who experience the first onset of a new technology, whether it be alphabet or radio, respond most emphatically because the new sense ratios set up at once by the technological dilation of eye or ear, present men with a surprising new world, which evokes a vigorous new "closure," or novel pattern of interplay, among all of the senses together. But the initial shock gradually dissipates as the entire community absorbs the new habit of perception into all of its areas of work and association. But the real revolution is in this later and prolonged phase of "adjustment" of all personal and social life to the new model of perception set up by the new technology.

The Romans carried out the alphabetic translation of culture into visual terms. The Greeks, whether ancient or Byzantine, clung to much of the older oral culture with its distrust of action and applied knowledge. For applied knowledge, whether in military structure or industrial organization, depends upon uniformity and homogenization of populations. "It is certain," wrote the symbolist Edgar Allan Poe, "that the mere act of inditing tends in a great degree to the logicalization of thought." Lineal, alphabetic inditing made possible the sudden invention of "grammars" of thought and science by the Greeks. These grammars or explicit spellings out of personal and social processes were visualizations of non-visual functions and relations. The functions and processes were not new. But the means of arrested visual analysis, namely the phonetic alphabet, was as new to the Greeks as the movie camera in our century.

We can ask ourselves later why the fanatic specialism of the Phoenicians, which hacked the alphabet out of the hieroglyphic culture, did not release any further intellectual or artistic activity in them. Meantime, it is relevant to note that Cicero, the encyclopedic synthesizer of the Roman world, when surveying the Greek world, reproves Socrates for having been the first to make a split between mind and heart. The pre-Socratics were still mainly in a non-literate culture. Socrates stood on the border between that oral world and the visual and literate culture. But he wrote nothing. The Middle Ages regarded Plato as the mere scribe or amanuensis of Socrates. And Aquinas

considered that neither Socrates nor Our Lord committed their teaching to writing because the kind of interplay of minds that is in teaching is not possible by means of writing.³

Does the interiorization of media such as LETTERS alter the ratio among our senses and change mental processes?

|| What concerned Cicero, the practical Roman, was that the Greeks had put difficulties in the way of his own program for the *doctus orator*. In chapters xv–xxiii of the third book of the *De oratore*, he offers a history of philosophy from the beginning to his own time, trying to explain how it came about that the professional philosophers had made a breach between eloquence and wisdom, between practical knowledge and knowledge which these men professed to follow for its own sake. Before Socrates learning had been the preceptress of living rightly and speaking well. But with Socrates came the division between the tongue and the heart. That the eloquent Socrates should have been of all people the one to initiate a division between thinking wisely and speaking well was inexplicable: “... quorum princeps Socrates fuit, is, qui omnium eruditorum testimonio totiusque iudicio Graeciae cum prudentia et acumine et venustate et subtilitate, tum vero eloquentia, varietate, copia, quam se cumque in partem dedisset omnium fuit facile princeps ...”

But after Socrates things became much worse in Cicero’s opinion. The Stoics despite a refusal to cultivate eloquence, have alone of all the philosophers declared eloquence to be a virtue and wisdom. For Cicero, wisdom is eloquence because only by eloquence can knowledge be applied to the minds and hearts of men. It is applied knowledge that obsesses the mind of Cicero the Roman as it did the mind of Francis Bacon. And for Cicero, as for Bacon, the technique of application depends upon the Roman brick procedure of uniform repeatability and homogeneous segments of knowledge.

If a technology is introduced either from within or from without a culture, and if it gives new stress or ascendancy to one or another of our senses,

3 Utrum Christus debuerit doctrinam Suam Scripto tradere. *Summa Theologica*, part III, q. 42, art. 4.

from the ancient Greek and Roman “figures of rhetoric.” Such equations or figures have no content but are structures like an individual melody which evoke their own world. The figures of rhetoric are postures of the mind, as hyperbole, or irony, or litotes, or simile, or paranomasia. Picture writing of all kinds is a ballet of such postures which delights our modern bias towards synesthesia and audile-tactile richness of experience, far more than does the bare, abstract alphabetic form. It would be well today if children were taught a good many Chinese ideograms and Egyptian hieroglyphs as a means of enhancing their appreciation of our alphabet.

Colin Cherry, then, misses the point about the unique character of our alphabet, namely that it dissociates or abstracts, not only sight and sound, but separates all meaning from the sound of the letters, save so far as the meaningless letters relate to the meaningless sounds. So long as any other meaning is vested in sight or sound, the divorce between the visual and the other senses remains incomplete, as is the case in all forms of writing save the phonetic alphabet.

Current concern with reading and spelling reform steers away from visual to auditory stress.

|| It is interesting that today there is a growing unrest about our alphabetic dissociation of the senses. On page 57 there is a sample of a recent attempt at a new alphabet that would restore more phonic character to our script. The most notable thing about the sample is that it has the highly textural and tactile quality of an ancient manuscript page. In our desire to restore some unity of interplay among our senses we grope towards ancient manuscript forms which must be read aloud to be read at all. Side by side with this extreme development is that of the new institutes for speeded-up reading. There they are taught how to use the eye on the page so as to avoid all verbalization and all incipient movements of the throat which accompany our cinematic chase from left to right, in order to create the mental sound movie which we call reading.

The most definitive work we have on the phonetic letters is *The Alphabet* by David Diringer. He begins his story as follows (p. 37):

The alphabet is the last, the most highly developed, the most convenient and the most easily adaptable system of writing. Alphabetic writing

the ratio among all of our senses is altered. We no longer feel the same, nor do our eyes and ears and other senses remain the same. The interplay among our senses is perpetual save in conditions of anesthesia. But any sense when stepped up to high intensity can act as an anesthetic for other senses. The dentist can now use “audiac” – induced noise – to remove tactility. Hypnosis depends on the same principle of isolating one sense in order to anesthetize the others. The result is a break in the ratio among the senses, a kind of loss of identity. Tribal, non-literate man, living under the intense stress on auditory organization of all experience, is, as it were, entranced.

Plato, however, the scribe of Socrates as he seemed to the Middle Ages, could in the act of writing⁴ look back to the non-literate world and say:

It would take a long time to repeat all that Thamus said to Theuth in praise or blame of the various arts. But when they came to letters, This, said Theuth, will make the Egyptians wiser and give them better memories; it is a specific both for the memory and for the wit. Thamus replied: O most ingenious Theuth, the parent or inventor of an art is not always the best judge of the utility or inutility of his own inventions to the users of them. And in this instance, you who are the father of letters, from a paternal love of your own children have been led to attribute to them a quality which they cannot have; for this discovery of yours will create forgetfulness in the learners' souls, because they will not use their memories; they will trust to the external written characters and not remember of themselves. The specific which you have discovered is an aid not to memory, but to reminiscence, and you give your disciples not truth, but only the semblance of truth; they will be hearers of many things and will have learned nothing; they will appear to be omniscient and will generally know nothing; they will be tiresome company, having the show of wisdom without the reality.

Plato shows no awareness here or elsewhere of how the phonetic alphabet had altered the sensibility of the Greeks; nor did anybody else in his time or later. Before his time, the myth-makers, poised on the frontiers between the old oral world of the tribe and the new technologies of specialism and individualism, had foreseen all and said all in a few words. The myth of Cadmus states how this King who had introduced the Phoenician script, or the phonetic alphabet to Greece, had sown the dragon's teeth and they

4 *Phaedrus*, trans. B. Jowett, 274–5. All quotations from Plato are from Jowett's translation.

had sprung up armed men. This, as with all myth, is a succinct statement of a complex social process that had occurred over a period of centuries. But it was only in recent years that the work of Harold Innis opened up the Cadmus myth fully. (See, for example, *The Bias of Communication* and *Empire and Communications*.) The myth, like the aphorism and maxim, is characteristic of oral culture. For, until literacy deprives language of his multi-dimensional resonance, every word is a poetic world unto itself, a “momentary deity” or revelation, as it seemed to non-literate men. Ernst Cassirer’s *Language and Myth* presents this aspect of non-literate human awareness, surveying the wide range of current study of language origins and development. Towards the end of the nineteenth century numerous students of non-literate societies had begun to have doubts about the *a priori* character of logical categories. Today, when the role of phonetic literacy in the creating of the techniques of enunciation of propositions (“formal logic”) is well known, it is still supposed, even by some anthropologists, that Euclidean space and three-dimensional visual perception is a universal datum of mankind. The absence of such space in native art is considered by such scholars to be owing to lack of artistic skill. Cassirer, reporting on the notion of words as myth (the etymology of *mythos* indicates that it means “word”) says (p. 62):

According to Usener, the lowest level to which we can trace back the origin of religious concepts is that of “momentary gods,” as he calls those images which are born from the need or the specific feeling of a critical moment ... and still bearing the mark of all its pristine volatility and freedom. But it appears that the new findings which ethnology and comparative religion have put at our disposal during the three decades since the publication of Usener’s work enable us to go back one step further yet.

Civilization gives the barbarian or tribal man an eye for an ear and is now at odds with the electronic world.

|| This step takes to a more generalized sense of the manifestations of divine potency, away from particular, individualized “archetypes” and epiphanies of “momentary deities.” It must often have puzzled the scholars

“Gutenmorg with his cromagnon charter” expounds by mythic gloss the fact that writing meant the emergence of the caveman or sacral man from the audile world of simultaneous resonance into the profane world of daylight. The reference to the masons is to the world of the bricklayer as a type of speech itself. On the second page of the *Wake*, Joyce is making a mosaic, an Achilles shield, as it were, of all the themes and modes of human speech and communication: “Bygmeister Finnegan, of the Stuttering Hand, freemen’s murer, lived in the broadest way immarginable in his ruchlit toofarback for messuages before joshuan judges had given us numbers ...” Joyce is, in the *Wake*, making his own Altamira cave drawings of the entire history of the human mind, in terms of its basic gestures and postures during all phases of human culture and technology. As his title indicates, he saw that the wake of human progress can disappear again into the night of sacral or auditory man. The Finn cycle of tribal institutions can return in the electric age, but if again, then let’s make it a wake or awake or both. Joyce could see no advantage in our remaining locked up in each cultural cycle as in a trance or dream. He discovered the means of living simultaneously in all cultural modes while quite conscious. The means he cites for such self-awareness and correction of cultural bias is his “collideorscope.” This term indicates the interplay in colloidal mixture of all components of human technology as they extend our senses and shift their ratios in the social kaleidoscope of cultural clash: “deor,” savage, the oral or sacral; “scope” the visual or profane and civilized.

Until now a culture has been a mechanical fate for societies, the automatic interiorization of their own technologies.

|| Hitherto most people have accepted their cultures as a fate, like climate or vernacular; but our empathic awareness of the exact modes of many cultures is itself a liberation from them as prisons. Hence Joyce’s title is also a manifesto. In a most competent survey, *Man: His First Million Years*, Ashley Montagu comments (pp. 193–4) on aspects of non-literacy in a way that relates to these themes:

Nonliterate man casts the net of thought over the whole world. Mythology and religion may be closely related, but where one grows out of

man's everyday life, the other grows out of his concern with the supernatural. And so it is with his view of the world, which will be compounded of secular, religious, mythological, magical, and experiential elements all rolled into one.

Most nonliterate peoples are extreme realists. They are bent on bringing the world under control, and many of their practices are devised to insure that reality will perform according to their bidding. In the conviction that the spirits are on his side, a man may then make all the necessary preparations for the success of an expedition. Coercing reality to do one's bidding by manipulating it in the prescribed manner is, for the nonliterate, a part of reality.

It is necessary to understand that nonliterate peoples identify themselves very much more closely with the world in which they live than do the literate peoples of the world. The more "literate" people become, the more they tend to become detached from the world in which they live.

What happens *is* reality to the nonliterate. If ceremonies calculated to increase the birth of animals and the yield of plants are followed by such increases, then the ceremonies are not only connected with them but are part of them; for without the ceremonies the increase of animals and plants would not have occurred – so the nonliterate reasons. It is not that the nonliterate is characterized by an illogical mind; his mind is perfectly logical, and he uses it very well, indeed. An educated white man finding himself suddenly deposited in the Central Australian desert would be unlikely to last very long. Yet the Australian aboriginal manages very well. The aboriginals of all lands have made adjustments to their environments which indicate beyond any doubt that their intelligence is of high order. The trouble with the nonliterate is not that he isn't logical, but that he applies logic too often, many times on the basis of insufficient premises. He generally assumes that events which are associated together are causally connected. But this is a fallacy which the majority of civilized people commit most of the time, and it has been known to happen among trained scientists! Nonliterate tend to adhere too rigidly to the rule of association as causation, but most of the time it works, and by the pragmatic rule what works is taken to be true.

Nothing could be further from the truth than the idea that nonliterate are utterly credulous, superstition- and fear-ridden creatures, without any capacity or opportunity for independent and original thought.

In addition to good horse sense, the nonliterate usually displays much practical sense based on an appreciation of the hard realities of life. ...

What Montagu opens up here concerning the intense practicality of the non-literate applies perfectly as gloss to Joyce's Bloom or Odysseus, the resourceful man. What could be more practical for a man caught between the Scylla of a literary culture and the Charybdis of post-literate technology to make himself a raft of ad copy? He is behaving like Poe's sailor in the *Maelstrom* who studied the action of the whirlpool and survives. May not it be our job in the new electronic age to study the action of the new vortex on the body of the older cultures?

The techniques of uniformity and repeatability were introduced by the Romans and the Middle Ages.

|| *Prints and Visual Communication* by William Ivins is a major resource for any student of the role of books in shaping human knowledge and society. The fact that Ivins stood a bit aside from the central literary aspect of the book seems to have given him an advantage over literary men. The student of literature and philosophy is prone to be concerned with book "content" and to ignore its form. This failure is peculiar to phonetic literacy in which the visual code always has the "content" that is the speech recreated by the person engaged in reading. No Chinese scribe or reader could make the mistake of ignoring the form of writing itself, because his written character does not separate speech and visual code in our way. But in a world of phonetic literacy this compulsion to split form and content is universal, and affects non-literary people as much as the scholar. Thus the Bell Telephone Laboratories spend millions on research but have never even noticed the peculiar form that is the telephone and what it does to speech and to personal relations. As an expert in prints Ivins became aware of their difference from the printed books in which they appeared. This in turn made him aware of the great difference between printed and manuscript books. At the outset (pp. 2-3) he draws attention to the dimension of repeatability built into the phonetic written characters, in order to stress the same dimensions of repeatability as it is found in pre-Gutenberg block printing of pictures from woodcuts:

The manuscript shaped medieval literary conventions at all levels.

|| Hadas pursues this theme elsewhere in his excellent work. And it is taken up again for the medieval period by H. J. Chaytor in *From Script to Print*, a book to which the present one owes a good deal of its reason for being written.

No one is likely to contest the statement that the invention of printing and the development of that art mark a turning-point in the history of civilisation. Not so readily appreciated is the fact that association with printed matter has changed our views of literary art and style, has introduced ideas concerning originality and literary property of which the age of manuscript knew little or nothing, and has modified the psychological processes by which we use words for the communication of thought. The breadth of the gulf which separates the age of manuscript from the age of print is not always, nor fully, realised by those who begin to read and criticise medieval literature. When we take up a printed edition of a medieval text, provided with an introduction, a critical apparatus of variant readings, notes and glossary, we bring unconsciously to its perusal those prejudices and prepossessions which years of association with printed matter have made habitual. We are liable to forget that we are dealing with the literature of an age when orthographical standards varied and grammatical accuracy was not highly esteemed, when language was fluid and was not necessarily regarded as a mark of nationality, when style meant the observance of fixed and complicated rules of rhetoric. To copy and circulate another man's book might be regarded as a meritorious action in the age of manuscript; in the age of print, such action results in law suits and damages. Writers who wish to derive profit by amusing a public now write for the most part in prose; until the middle of the thirteenth century, only verse could obtain a hearing. Hence, if a fair judgment is to be passed upon literary works belonging to the centuries before printing was invented, some effort must be made to realise the extent of the prejudices under which we have grown up, and to resist the involuntary demand that medieval literature must conform to our standards of taste or be regarded as of interest purely antiquarian. In the words of

Renan, "l'essence de la critique est de savoir comprendre des états très différents de celui où nous vivons." (p. 1)

It was learning from Chaytor how literary conventions are affected by the oral, written, or the printed forms, that suggested to me the need for *The Gutenberg Galaxy*. Medieval language and literature were somewhat in the state of the present movie or the TV show in that, in Chaytor's words, it

produced little formal criticism in our sense of the term. If an author wished to know whether his work was good or bad, he tried it on an audience; if it was approved, he was soon followed by imitators. But authors were not constrained by models or systems ... the audience wanted a story with plenty of action and movement, the story, as a rule, showed no great command of character drawing; this was left to the reciter for portrayal by change of voice and gesture. (p. 3)

The twelfth century audience took these recitals in instalments but "we can sit and read it at our leisure and turn back to previous pages at our will. In short, the history of the progress from script to print is a history of the gradual substitution of visual for auditory methods of communicating and receiving ideas." (p. 4) Chaytor quotes (p. 7) a passage from *Our Spoken Language* by A. Lloyd James (p. 29) which comes to grips with the alteration of our sense lives by way of literacy:

"Sound and sight, speech and print, eye and ear have nothing in common. The human brain has done nothing that compares in complexity with this fusion of ideas involved in linking up the two forms of language. But the result of the fusion is that once it is achieved in our early years, we are for ever after unable to think clearly, independently and surely about any one aspect of the matter. We cannot think of sounds without thinking of letters; we believe letters have sounds. We think that the printed page is a picture of what we say, and that the mysterious thing called 'spelling' is sacred. ... The invention of printing broadcast the printed language and gave to print a degree of authority that it has never lost."

Stressing the latent kinesthetic effects even in silent reading Chaytor refers to the fact that "some doctors forbid patients with severe throat affec-

tile. This involves the modern reader in total translation of sight into sound as he *looks* at the page. Recall of material read by the eye then is confused by the effort to recall it both visually and auditorially. People with “good memories” are the ones with “photographic memories.” That is, they do not translate back and forth from eye to ear and do not have things “on the tip of the tongue,” which is our state when we do not know whether to see or hear a past experience.

Before turning to the oral and auditory world of the Middle Ages in its erudite and artistic aspects, there are two passages, one from the earliest and one from the latest phases of the medieval world that indicate the ordinary assumption that the act of reading was oral and even dramatic.

The first passage is from *The Rule of Saint Benedict*, chap. 48: “After the sixth hour, having left the table let them rest on their beds in perfect silence; or if anyone wishes to read by himself, let him read so as not to disturb the others.”

The second passage is from a letter of St. Thomas More to Martin Dorp, reproving Dorp for his letters: “However I am certainly surprised if any person should take it into his head to be so flattering as to extol such matters even in your presence; and, as I began to say, I wish you could watch through a window and see the facial expression, the tone of voice, the emotion with which those matters are read.”²³

In the chantry schools grammar served, above all, to establish oral fidelity.

|| Once it is understood that oral culture has many features of stability, quite non-existent in a visually organized world, it is quite easy to enter the medieval situation. It is also easier to grasp some of the basic changes in twentieth century attitudes.

I turn briefly now to an unusual book by Istvan Hajnal²⁴ about the teaching of writing in medieval universities. I had opened this book in the expectation of finding, between the lines, as it were, evidence of the ancient and medieval practice of private reading aloud. I was not prepared to discover that “writing” to a medieval student was not only profoundly oral

23 E. F. Rogers, ed., *St. Thomas More: Selected Letters*, p. 13.

24 *L'Enseignement de l'écriture aux universités médiévales*, p. 74; translations by the present author.

but inseparable from what is now called oratory and what was then called *pronuntiatio*, which was and remained the fifth major division of standard rhetorical study. Just why delivery or *pronuntiatio* was taken so seriously in the ancient and medieval worlds, gets new meaning from Hajnal's work: "The art of writing was held in great esteem because they saw in it the proof of a solid oral training."

The story of writing as oral training helps to explain the early age of entry to the medieval university. For the proper study of the development of writing we must consider that the students began their course at the university at the age of twelve or fourteen. "In the twelfth and thirteenth centuries, the necessity of knowing Latin grammar, as well as material obstacles like the rarity of parchment, could push back the age at which writing might acquire its definitive form."

We have to keep in mind that there was no organized system of education outside the universities. So that after the Renaissance "we find frequent allusions to the fact at Paris in the small classes of certain colleges, teaching commenced with the alphabet." We have, moreover, data on students in the college who were under ten years of age. But, certainly, for the medieval university we have to keep in mind that it "embraced all the levels of instruction from the most elementary to the most advanced." Specialism in our sense was unknown and all levels of instruction tended to be inclusive rather than exclusive. Certainly this inclusive character applies to the art of writing at this period; for writing implied all that to the ancient and medieval world was *grammatica* or *philologia*.

At the opening of the twelfth century, says Hajnal (p. 39), there had been "for some centuries an important system of teaching designed to train advanced students. This training included in addition to knowledge of the liturgy, practical skills associated with it. At the level of the choir or chantry school one learned to read Latin and thus grammar was necessary in order to recite and to copy properly the Latin texts. Grammar served above all to insure oral fidelity."

This stress on oral fidelity was to the medieval man the equivalent of our own visual idea of scholarship as involving exact quotation and proofreading. But the reason for this state of affairs Hajnal clears up in his section on "methods of teaching writing at the university."

By the middle of the thirteenth century the Faculty of Arts at Paris was at a crossroads as regards methods. Presumably, the growing volume of available books had made it possible for many teachers to forego the method of the *dictamen* or dictation, and to move at a fast pace. But the slow method

of dictation was also still in vogue. According to Hajnal (pp. 64–5), “after careful consideration, [the Faculty] decided in favour of the first method; that the professor should speak fast enough to be understood, but too fast for the pen to follow him. ... Students who in order to oppose this statute themselves, or by means of their servants and followers, should shout or whistle or stamp their feet would be excluded from the Faculty for one year.”

The medieval student had to be paleographer, editor, and publisher of the authors he read.

|| The clash was between the old form of dictation or the new form of dialogue and oral disputation. And it was this clash which enables us to learn about the details of medieval teaching procedure. On pages 65 and 66 of Hajnal’s work we learn:

The mention that courses were conducted without dictation outside the Arts Faculty shows that the Arts Faculty had broken with the method in use in its courses till that time. And what is more striking the Faculty of Arts expected the opposition of the students ... The students clung to dictation. For dictation up to that time served not only to slow down the lecture, it served not only to give students complementary texts, but it constituted the method of the principal courses: *modus legendi libros*. ... Dictation was in use even in the lectures given by the candidates at their examinations when they had to offer evidence of reading the written texts.

Hajnal proceeds to another basic aspect:

There can be no doubt that one of the essential reasons for the custom of dictation finds its explanation in the fact that, before the era of printing, schools and scholars had no adequate supply of texts. A manuscript book cost much; the simplest way of getting them was for the teacher to dictate the texts to his pupils. It is possible that there were students who wrote by dictation texts for commercial ends. Yes, in a certain degree, dictation would have been a commercial affair, both on the part of the student who wrote and sold the book and on the part of the teacher who by this means was assured of a large audience, and, by the same token, substantial revenue. The manual was necessary to the