

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*.

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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.<sup>2</sup>

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.

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

... After this recitation he calls the name of the girl loudly and starts to address her *as though she were listening*. (p. 309)

It is a matter of “rite words in rote order,” as Joyce put it. But once more any Western child today grows up in this kind of magical repetitive world as he hears advertisements on radio and TV.

Carothers next asks (p. 310) how literacy in a society might operate to effect the change from the notion of words as resonant, live, active, natural forces to the notion of words as “meaning” or “significance” for minds:

I suggest that it was only when the written, and still more the printed, word appeared on the scene that the stage was set for words to lose their magic powers and vulnerabilities. Why so?

I developed the theme in an earlier article with reference to Africa, that the nonliterate rural population lives largely in a world of sound, in contrast to western Europeans who live largely in a world of vision. Sounds are in a sense dynamic things, or at least are always indicators of dynamic things – of movements, events, activities, for which man, when largely unprotected from the hazards of life in the bush or the veldt, must be ever on the alert. ... Sounds lose much of this significance in western Europe, where man often develops, and must develop, a remarkable ability to disregard them. Whereas for Europeans, in general, “seeing is believing,” for rural Africans reality seems to reside far more in what is heard and what is said.

... Indeed, one is constrained to believe that the eye is regarded by many Africans less as a receiving organ than as an instrument of the will, the ear being the main receiving organ.

Carothers reiterates that the Westerner depends on a high degree of visual shaping of spatio-temporal relations without which it is impossible to have the mechanistic sense of causal relations so necessary to the order of our lives. But the quite different assumptions of native perceptual life have led him to ask (p. 311) what has been the possible role of written words in shifting habits of perception from the auditory to visual stress:

When words are written, they become, of course, a part of the visual world. Like most of the elements of the visual world, they become static things and lose, as such, the dynamism which is so characteristic of the auditory world in general, and of the spoken word in particular. They

lose much of the personal element, in the sense that the heard word is most commonly directed at oneself, whereas the seen word most commonly is not, and can be read or not as whim dictates. They lose those emotional overtones and emphases which have been described, for instance, by Monrad-Krohn ... Thus, in general, words, by becoming visible, join a world of relative indifference to the viewer – a world from which the magic “power” of the word has been abstracted.

Carothers continues his observations into the area of “free ideation” permitted to literate societies and quite out of the question for oral, non-literate communities:

The concept that verbal thought is separable from action, and is, or can be, ineffective and contained within the man ... has important socio-cultural implications, for it is only in societies which recognize that verbal thoughts can be so contained, and do not of their nature emerge on wings of power, that social constraints can, in theory at least, afford to ignore ideation. (p. 311)

Thus, in a society still so profoundly oral as Russia, where spying is done by ear and not by eye, at the memorable “purge” trials of the 1930’s Westerners expressed bafflement that many confessed total guilt not because of what they had done but what they had thought. In a highly literate society, then, visual and behavioural conformity frees the individual for inner deviation. Not so in an oral society where inner verbalization is effective social action:

In these circumstances it is implicit that behavioural constraints *must* include constraint of thought. Since all behaviour in such societies is governed and conceived on highly social lines, and since directed thinking can hardly be other than personal and unique for each individual, it is furthermore implicit in the attitude of these societies that the very possibility of such thinking is hardly to be recognized. Therefore, if and when such thinking does occur, at other than strictly practical and utilitarian levels, it is apt to be seen as deriving from the devil or from other external evil influences, and as something to be feared and shunned as much in oneself as in others. (p. 312)

It is, perhaps, a little unexpected to hear the compulsive and rigid patterns of a deeply oral-aural community referred to as “governed and con-

ceived on highly social lines.” For nothing can exceed the automatism and rigidity of an oral, non-literate community in its non-personal collectivity. As Western literate communities encounter the various “primitive” or auditory communities still remaining in the world, great confusion occurs. Areas like China and India are still audile-tactile in the main. Such phonetic literacy as has penetrated there has altered very little. Even Russia is still profoundly oral in bias. Only gradually does literacy alter substructures of language and sensibility.

Alexander Inkeles in his book on *Public Opinion in Russia* (p. 137) gives a useful account of how the ordinary and unconscious bias, even of the Russian literate groups, has a direction quite counter to anything a long-literate community would consider “natural.” The Russian attitude, like that of any oral society, reverses our stress:

In the United States and England it is the freedom of expression, the right itself in the abstract, that is valued. ... In the Soviet Union, on the other hand, the *results* of exercising freedom are in the forefront of attention, and the preoccupation with the freedom itself is secondary. It is for this reason that the discussions between Soviet and Anglo-American representatives characteristically reach absolutely no agreement on specific proposals, although both sides assert that there should be freedom of the press. The American is usually talking about freedom of *expression*, the right to say or not to say certain things, a right which he claims exists in the United States and not in the Soviet Union. The Soviet representative is usually talking about *access* to the *means* of expression, not to the right to say things at all, and this access he maintains is denied to most in the United States and exists for most in the Soviet Union.

Soviet concern with media *results* is natural to any oral society where interdependence is the result of instant interplay of cause and effect in the total structure. Such is the character of a village, or, since electric media, such is also the character of global village. And it is the advertising and PR community that is most aware of this basic new dimension of global interdependence. Like the Soviet Union, they are concerned about *access* to the media and about *results*. They have no concern whatever about self-expression and would be shocked by any attempt to take over, say, a public advertisement for oil or coke as a vehicle of private opinion or personal feeling. In the same way the literate bureaucrats of the Soviet Union cannot

imagine anybody wanting to use public media in a private way. And this attitude has just nothing to do with Marx, Lenin, or Communism. It is a normal tribal attitude of any oral society. The Soviet press is their equivalent of our Madison Avenue in shaping production and social processes.

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## Schizophrenia may be a necessary consequence of literacy.

|| Carothers stresses that until phonetic writing split apart thought and action, there was no alternative but to hold all men responsible for their thoughts as much as their actions. His great contribution has been to point to the breaking apart of the magical world of the ear and the neutral world of the eye, and to the emergence of the detribalized individual from this split. It follows, of course, that literate man, when we meet him in the Greek world, is a split man, a schizophrenic, as all literate men have been since the invention of the phonetic alphabet. Mere writing, however, has not the peculiar power of the phonetic technology to detribalize man. Given the phonetic alphabet with its abstraction of meaning from sound and the translation of sound into a visual code, and men were at grips with an experience that transformed them. No pictographic or ideogrammic or hieroglyphic mode of writing has the detribalizing power of the phonetic alphabet. No other kind of writing save the phonetic has ever translated man out of the possessive world of total interdependence and interrelation that is the auditory network. From that magical resonating world of simultaneous relations that is the oral and acoustic space there is only one route to the freedom and independence of detribalized man. That route is *via* the phonetic alphabet, which lands men at once in varying degrees of dualistic schizophrenia. Here is how Bertrand Russell describes (in his *History of Western Philosophy*, p. 39) this condition of the Greek world in the early throes of dichotomy and the trauma of literacy:

Not all of the Greeks, but a large proportion of them, were passionate, unhappy, at war with themselves, driven along one road by the intellect and along another by the passions, with the imagination to conceive heaven and the wilful self-assertion that creates hell. They had a maxim "nothing too much," but they were in fact excessive in everything – in pure thought, in poetry, in religion, and in sin. It was the combination of passion and intellect that made them great, while they were great. ...

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.<sup>3</sup>

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## 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,

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

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 writing<sup>4</sup> 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

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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.

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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