



VISIBLE LANGUAGE 31.1

This is the Journal concerned with all that is involved with being literate. Visible Language is concerned with research and ideas that help define the unique role and properties of written language. It is a basic premise of the journal that writing/reading form an autonomous system of language expression which must be defined and developed on its own terms. Published since 1967, Visible Language maintains its policy of having no formal editorial affiliation with any professional organization – which requires the continuing, active cooperation of key investigators and practitioners in all of the disciplines which impinge on the journal's development of the visible language concept.

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Just

expansive events,

phenomenon,

you might say,

many varied accounts

of many colors

historically developed in

the little particles where

past and present collide.

The structures and functions of writing have evolved in profound ways over the past several millennia. In the process, linkages between spoken and written language continue to change. This study explores symbiotic relationships between writing and cognition, social transformations, theories of pedagogy and technology, and hazards several projections about future developments of the written word.

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thinking, learning, and the written word

The year is around 1150, and Robin (of Sherwood Forest fame) has returned to England after years in the Crusades. Much has changed in his absence, not the least of which is that Maid Marian has become a nun. Middle-aged, confused, and stung by his woman's seeming abandonment, Robin asks how she could have taken vows. Marian patiently explains she had no way of knowing Robin was even still alive:

*"You didn't write," she chides.
Robin's innocent retort: "I never learned how."*

A REVIEW ARTICLE

DAVID R. OLSON. 1994. *THE WORLD ON PAPER: THE CONCEPTUAL AND COGNITIVE IMPLICATIONS OF WRITING AND READING*. CAMBRIDGE: CAMBRIDGE UNIVERSITY PRESS. 318pp.

NICHOLAS NEGROPONTE. 1995. *BEING DIGITAL*. NEW YORK: ALFRED KNOPF. 243pp.

In this imagined sequel to the familiar saga, the film *Robin and Marian* starkly captures the great communicative divide between medieval and modern times in European-based cultures. Marian presupposes a twentieth century view of the written word ("Drop a line to let me know how you're getting on"). Robin, very much a product of his times, makes no apology for not being literate. And apologize he shouldn't, for literacy in the middle ages was extremely restricted in its participants and functions. Your average warrior or nobleman had no more use for reading or writing than for eating with silverware or regular bathing.

Writing has a history. But an understanding of that history involves more than simply tracing the emergence of scripts in Sumeria or China, Egypt or Mesoamerica. The history of writing is also a history of social change: Why does writing emerge in the first place? What range of functions does it come to have? Who becomes skilled in reading and/or writing, and why? It is a history of changed models of communication: How much does writing attempt to encode speech? What messages or texts do we divvy up for spoken delivery and which do we reserve for writing? But perhaps most fundamentally, the history of writing is a history of how we think, what we know and how we come to know it.

1 WHAT DOES WRITING DO TO US?

One of the swiftest ways to earn the opprobrium of academic colleagues in linguistics is to suggest that technologies of language or, more broadly, of communication, mold our thinking. Since the presumed implication is that people without these technologies have "different" (read: "less sophisticated") mental make-ups, such a thesis is promptly judged to smack of value judgment and claims to cultural superiority, and to re-introduce long-discarded notions of primitive languages and primitive thought.

Yet in the last half century, a spectrum of writers have claimed transformative virtues for written language or for the technologies by which language is carried. Such virtues have been posited for everything from literacy itself to the alphabet, from the printing press to mass media, from styles of reading to cyberspace. Are these theories just so much contemporary Western handwaving, or do they point to useful ways of understanding the relationship between language (and language modalities) and thought?

In this essay, we will review these claims about the influence of writing (or of media, more generally) on thinking patterns of individuals and of societies. We will see, in turn, that such claims are inextricably linked to educational presuppositions and practices through which knowledge is presumed to change.

THE LITERACY EFFECT

"Writing is a technology that restructures thought."

Ong, 1992

The most sweeping of the literacy hypotheses is that the very act of being able to produce (write) and/or comprehend (read) durable linguistic representation transforms who we are as individuals and as societies. The strongest version of the hypothesis, which has come to be known as the "great divide" theory, suggests that non-literate and literate people really think differently. A somewhat weaker version, the "continuity" theory, sees the distance between orality and literacy as one of degree (Street 1988).

What is the magical ingredient that literacy is said to bestow? It has been called many things: "logical thought," "rationality,"

even "civilization" (although perhaps tautologously, since traditional discussions of civilization link particular patterns of social organization to the historical rise of cities, which, in turn, generally coincided with the emergence of written language). How is writing presumed to carry off this transformation? In the words of Walter Ong: "By distancing thought, alienating it, from its original habitat in sounded words [i.e., speech], writing raises consciousness." (Ong, 1992:301-302) That is, by being able to look at a representation of what you are thinking about, you can analyze, critique and revise it.

Arguments about the effects of writing on thought have been developed in two ways. The first, epitomized by the work of Eric Havelock, suggests that the availability of a writing system of a particular sort enables a whole society to think differently (in his argument, the creation of the Greek alphabet made possible Greek philosophical thought). We will return to Havelock's thesis shortly.

The second form of the argument has focused on the individual: Through the act of learning to read (and perhaps write), the individual's mental world changes. The particular script doesn't matter — any systematic durable representation of language, be it Chinese or Arabic, will presumably yield similar effects. These effects should be measurable by individual psychological tests, not by looking for major conceptual changes within the society at large.

Initial studies (e.g., Greenfield and Bruner, 1966; Greenfield, 1972) seemed to indicate that literacy fosters cognitive development. Children who could read did better on standard tests of cognitive growth (e.g., Piagetian concept formation and water conservation tasks) than did their non-literate counterparts. However, it was not clear whether the measurable cognitive advantages reflected literacy skills themselves or the schooling process through which children normally become literate (Greenfield, 1972). The analytical advantage that one associates with learning to read and write accrues (so it came to be argued) not from literacy but from the pedagogical process. It seemed impossible to separate the variables.

But what if you could find a community in which writing was not school based? Then you might get a true test of the theory. Sylvia Scribner and Michael Cole (1981) did locate such a group: the Vai of Liberia, who had developed an indigenous writing system, not supported by the schools, that is used for writing letters. In the process, Scribner and Cole offered the most thorough empirical examination of whether literacy or schooling is the critical factor.

Scribner and Cole overwhelmingly found that schooling rather than literacy by itself is the primary source of cognitive molding: "non-school literacies practiced among the Vai do not have the same cognitive effects as Western-type schooling" (Scribner and Cole, 1981:134). However, their investigations did reveal a handful of tasks on which the literate but non-schooled Vai outperformed their non-literate (and obviously non-schooled) counterparts. Among them were explaining to a novice the rules for playing a game, reading an invented rebus script, answering questions about sentences that were read aloud syllable-by-syllable as opposed to word-by-word, and explaining why certain sentences were ungrammatical. In each case, the literate Vai's superior performance builds upon specific skills relevant to the acquisition and/or use of indigenous literacy in the Vai community (e.g., Vai is written with a syllabic script; those literate in Vai often engage in discussion about what constitutes "good" writing).

The literate Vai's advantages, where they appeared, seem to reflect the development (albeit restricted) of metalinguistic skills, that is, the ability to use language to reflect on, talk about, even play with language. Children everywhere develop rudimentary metalinguistic skills — knowing that two words rhyme (though young children may not know the word 'rhyme'); recognizing that a sentence "sounds funny" (that it is ungrammatical — though they may not be able to tell you why); knowing that two words or sentences mean the same thing (though, again, they may not know the words 'synonym' or 'paraphrase'). But do some people develop more metalinguistic abilities than others? Even more to the point, why do metalinguistic skills matter?

One group of language learners who tends to develop particularly acute metalinguistic skills is bilinguals. A growing body of research shows that in comparison with monolinguals, bilinguals are generally better at early word-referent distinctions, more sensitive to language structure and detail, better at detecting ambiguities and analyzing tautological sentences, better at correcting ungrammatical sentences and better at noticing language mixing (see Diaz and Klinger, 1991:173).

But the advantages of bilingualism go beyond language analysis. Investigators also speak of bilingual children as having more "cognitive flexibility" than their monolingual counterparts, noting that bilinguals excel on a variety of both verbal and non-verbal cognitive tasks (see Hakuta and Diaz, 1985 for a review of the literature). Why "cognitive flexibility"? Because by virtue of their linguistic experiences in encountering the world through more than one lens, bilinguals (presumably) can apply this same "flexibility" of outlook to cognitive problems more generally.

Besides becoming bilingual, the surest way to increase one's metalinguistic skills seems to be to become literate. In Olson's words:

Writing takes language for its object and just as language is a device for "fixing" the world in such a way as to make it an object of reflection, so writing "fixes" language in such a way as to make it an object of reflection. ... Reading involves not only reading skills but also metalinguistic skills, how property x of language is represented in writing. Once represented, that property x is available for application to new activities and new tasks. (Olson, 1991:266)

While non-literate bilingual children generally outscore their monolingual counterparts on metalinguistic and cognitive tasks, the discrepancies are even higher for bilinguals who are literate in both languages (see Bialystok, 1991).

Does the greater "cognitive flexibility" of bilinguals result from their heightened metalinguistic skills? If so, does heightening of metalinguistic skills through the development of literacy heighten the "cognitive flexibility" of monolinguals? A growing number of studies (e.g., Herriman, 1986; Torrence and Olson, 1987; Olson and Astington, 1990) argue that literacy itself fosters metalinguistic awareness and cognitive growth. How? According to one model:

Literacy has its impact on cognition indirectly, through the invention and acquisition of a complex set of concepts [in this model, speech act verbs and mental state verbs], expressed in a metalanguage, for talking about texts. These devices turn linguistically-expressed propositions into objects of thought. (Olson and Astington, 1990:705)

Such are the posited effects of literacy in general. Might there also be consequences of particular forms of literacy?

THE ALPHABET EFFECT

"The use of the phonetic alphabet helps to explain why Western and Chinese thinking are so different — abstract and theoretical for the West versus concrete and practical for the East."

Logan, 1986:21-22

I. J. Gelb (1952/1963) initially suggested that the emergence of alphabetic writing represents a cultural advancement in that the ability to represent each sound of spoken language with a distinct symbol is, so he argues, culturally more sophisticated than using a system representing whole words with symbols (logograms) or clusters of sounds with single symbols (syllabaries). In Gelb's words, the alphabet is "the most developed form of writing" (Gelb, 1963:15). Or as Olson summarizes the alphabetic thesis:

The representation of ideas through pictures, the representation of words through logographic signs, the invention of syllabaries are all seen as failed attempts at or as halting steps towards the invention of the alphabet, it being the most highly evolved in this direction and therefore superior. (Olson, 1994:4)

The theory of the alphabetic mind fully came into its own through the work of the classicist Eric Havelock (e.g., 1963, 1976, 1991). A member of what has sometimes been called the "Toronto School" (including, among others, Marshall McLuhan), Havelock argued that the emergence of Greek philosophical thought can be explained by the development of the Greek alphabet. In a nutshell, the argument goes like this: The Greek alphabet was adapted from the Phoenician alphabet, sometime around 850-800 BC. Like other Semitic languages of the time, Phoenician was written with a consonantal alphabet, which had regular symbols for consonants but not for vowels. By developing symbols to represent Greek vowels (generally co-opting Phoenician letters for sounds not present in Greek), it became possible to record all of the segmental speech stream. Havelock concludes that the availability of a "true" writing system (i.e., one that can represent all sounds in the language) made possible a kind of logical and historical thinking not conceivable without the ability to write out, analyze and critique one's thoughts (see Goody and Watt, 1963 for a summary of Havelock's arguments).

Reaction against Havelock's theory of an "alphabetic mind" has been sharp and continuing. First, the argument about cognitive effect. There seems to be no evidence that the alphabet is in any way a superior representation of language. No one today seriously assumes, for example, that the Chinese or Japanese have less sophisticated (or less abstract or theoretical) "thought" than their occidental alphabetic compatriots. In fact, most of the critiques of Havelock's work (e.g., Lloyd, 1990; Halverson, 1992) have attacked cognitive claims for the "great divide" theory more generally.

Second, there is the linguistic argument. The alphabetic principle of representing individual sounds with signs is hardly unique to the Greeks. Phoneticism has emerged independently in writing systems across the globe (see Coulmas, 1989). While Greek seems to have been the first language seriously to attempt representing all vowels and consonants with individual signs, even that attempt was not complete. As Unger and DeFrancis (1995) have pointed out, the "myth" that alphabets represent all speech while logographic (character) systems only represent words is simply wrong. Every developed character-based system we know of — from Mayan glyphs to Egyptian hieroglyphs or Chinese characters — represents some sounds, and every alphabetic system has mismatches between pronunciation and orthography: to wit, English 'reign', 'pain' and 'mane', which share a common vowel sound but not a common spelling for it. Some alphabetic systems are more closely matched with sounds than others (e.g., Finnish does a better job than English — Unger and DeFrancis, 1995:54), but none achieves a full one-to-one correspondence.

Third, there is the argument concerning levels of literacy in Classical Greece. Some of Havelock's fellow classicists have argued that despite the presence of a "true" alphabet, writing (and literacy) did not play as critical a role in fifth century Athens as Havelock assumes. While the experts themselves are not in full agreement, it appears that much philosophical discourse of the time was oral, not written, and that the levels and uses of literacy among the citizens of Athens were not especially high (see Harris, 1989; Thomas, 1989).

Yet for all the problems with Havelock's thesis, some profound change *did* take place between the Greek dark ages (memorialized in the written versions of the *Iliad* and the *Odyssey*) and the Classical Greek period. Olson charts this transformation — what has sometimes been called the Greek invention of the concept of mind (Snell, 1960) — not through the development of the alphabet (as Havelock would have it) but by coupling a speech act analysis of verbs in Homeric and Classical Greek with Havelock's (and Olson's) more general thesis that writing models speech, and that by making words tangible, we transform them into objects of our consciousness. Olson builds the case as follows:

The Homeric Greeks experienced or represented speaking, thinking, feeling and acting as originating outside the self, typically in the speech of the gods: they "had to" act rather than "decide to" act. The Classical

Greeks came to see speech and action as originating in the mind and progressively under the control of the self. It is this new way of seeing speech and action which allowed for the increased control and responsibility that we speak of as the rise of self-consciousness. The proposed route to this self-consciousness is the experience of writing. Writing provided a model for one's speech. Consciousness of words permits their distinction from the ideas that words express. Writing, therefore, gives rise to the idea of an idea and the mind becomes the storehouse of those ideas. Thus it is at least plausible that the discovery of the mind was part of the legacy of writing. (Olson, 1994:242)

This rise in self-consciousness, facilitated by writing, can be seen as the societal equivalent of the growth of cognitive flexibility that we saw engendered through individual development of meta-linguistic skills.

While Havelock and others have argued that the act of writing transforms our cognition, a different group of players has focused on the effects of the technology through which language (written or spoken) is conveyed. The initial phase of this discussion encompassed the effects of the printing revolution and of electronic media up through the rise of television.

THE PRINT AND MEDIA EFFECTS

[According to Marshall McLuhan,] typographic man assumed that A follows B, that people who made things — whether cities, ideas, families or works of art — measured their victories (usually Pyrrhic) over periods of time longer than those sold to the buyers of beer commercials. Graphic man imagines himself living in the enchanted garden of the eternal now. If all the world can be seen simultaneously, and if all mankind's joy and suffering is always and everywhere present ..., nothing necessarily follows from anything else.

Lapham, 1994:xxiii

The modern scholarly reference point for analyzing the role printing has played in social and intellectual transformation is

Elizabeth Eisenstein's *The Printing Press as an Agent of Change* (1979). In it, Eisenstein, an historian, probes a variety of effects that printing had on early modern Europe: the growth of a lay intelligentsia, the rise of comparative scholarship, movement towards a standard dialect, increases in literacy rates, the appearance of didactic children's books, an increase in translation (especially of French literature), and, perhaps most importantly, creation of a tool for religious upheaval (first with the proliferation of printed indulgences and then publication of Luther's Bible and other "reforming" tracts). While Eisenstein's work may be criticized for not being sufficiently explanatory, it provides the basic source of data from which scholarly and popular discussion of the effects of printing continue to draw.

Literary critic-come-visionary Marshall McLuhan (e.g., 1962; 1964/94) takes the coming of the printing press as but the first of two major revolutions in human thought and social integration: While the print revolution turned us into typographic man, the more recent media revolution (ushered in by the telegraph and the telephone, and followed by radio and television) has transformed us into graphic man. Literacy may be rendering us schizophrenic (McLuhan, 1962:22), *the medium is the message and the global village*, makes for a better world than the isolating model of individuals sitting alone reading in their studies.

Those who lived through the 1960s remember McLuhan's rapid ascension to the status of pop guru. Like a modern Delphic Oracle, McLuhan was known for his flashes of insight — and lack of critical analysis. The problem, as Olson points out, is not that McLuhan had no ideas worth examining, but that he proclaimed rather than explained:

McLuhan's ... hypotheses regarding oral man, literate man, electronic man and so on continue to be apt metaphors but have limited theoretical use. They fail, I believe, not because they are false but because they do not indicate precisely how writing or printing could actually have produced those effects. (Olson, 1994:37)

Is there an alternative way of conceptualizing the connection between language (particularly writing) and thought? While

hypotheses about the literacy effect and the influence of print and early telecommunications bear grains of truth, the problem has been to explain why the effects arise, particularly in the times and places they do. In attempting to solve the problem, Olson turns the literacy model on its head and looks not so much at the effects of writing but of reading.

THE READING EFFECT

The failure of earlier theories of the implications of literacy comes from their assumption that literacy has its effects through advances in ways of writing, that is, the form of the script; in contrast I shall argue that conceptual implications arise from the ways of reading, for it is the art of reading which allows a text to be taken as a model for verbal form, that is, for "what is said." These models of what is said, whether as sounds, words or sentences, are always incomplete, giving rise to problems of interpretation. Whereas scripts provide reasonably adequate models of what is said, they provide less adequate models for how what is said is to be taken.

Olson, 1994:18-19

The most responsible attempt to date to argue for an effect of written language (and of the technologies through which writing is conveyed) on thinking and knowing is David Olson's *The World on Paper*. Olson combines an articulate analysis of previous attempts to assess the relationship between language and thought with novel and forceful arguments of his own. Writing, says Olson, can indeed be shown to affect cognition, but not for the reasons that Ong, Havelock or McLuhan would have us think. Olson focuses his attention on a specific point in time and space — Western Europe from the late middle ages through the early modern period — and on a restricted group of textual genres — legal, religious and scientific writings. Drawing heavily upon the work of others from a range of disciplines (speech act theory, medieval law, the rise of modern science), Olson argues that what changed from about the twelfth or thirteenth century to the seventeenth or eighteenth was not the form of written language or even so much the medium (printing) through which it was conveyed, but the presuppositions that readers brought to interpreting texts.

What were these presuppositions? The first concerned what should be written down in the first place. During the middle ages, writing served largely as an aide de memoire, not as a primary repository of information. Even legal dealings, which today we take as a paradigmatic venue for writing, were primarily oral and only secondarily written. Up until the thirteenth century, the deeding of land was typically an oral ceremony, accompanied by a clump of soil from the deeded property (Clanchy, 1979:36).

And English written wills (as opposed to oral ceremonies supplemented by written documents) did not become legally binding until the seventeenth century (Danet and Bogoch, 1992:98).

A second new presupposition concerned the role of the reader when encountering a text. If the specific content of a text is presumed to have meaning in and of itself (rather than being a shorthand for reminding the reader of the gist of what was said), then it becomes important for readers to derive the meaning that the writer intended. The problem, Olson suggests, is that by its very nature, writing can tell us what is intended but not how the reader should interpret it. In the language of contemporary speech act theory, writing expresses locutionary but not illocutionary force. The modern reader's task is to ascertain the writer's intended illocutionary force.

Taking the Book of God (the Bible) and the Book of Nature (the growth of early modern science) as his major foci, Olson demonstrates how Protestantism introduced a new theory of reading, one in which Luther presumed that the intended meaning of the Bible (both its locutionary and illocutionary force) was transparent, if the text is available to us in a language we know how to read (hence the motivation for translating the Bible into the vernacular). By way of analogy, the Book of Nature was equally discernable, again, if we could only figure out what it said:

To read algorithmically implied that all readers relying on these methods obtain the same reading or interpretation and that they obtain it on every re-reading. The correct interpretation ... allowed a clear distinction between what was in a text and what someone may read into a text. It came to be ... the Protestant way of reading scripture. But once this method of reading scripture was developed it was a rather simple step to assume that nature could be read in the same way. (Olson, 1994:169)

How did the analogy with science develop? Its roots are found in the work of Francis Bacon:

Knowledge, for Bacon, is produced when the mind meets things in [a] special kind of language Bacon referred to as "writing." Writing involves setting the order of expressions with the order of things. The minimal parts of the world correspond in a way to the minimal parts of written language. Bacon, in fact, elaborated this metaphor by talking about the alphabet of the world — the language of creation — which one could learn to read by careful observation and analysis. This language was ... the language in which the natural world was written by the creator. (Olson, 1994:164-165)

Unlike his predecessors, Olson proposes a logically argued, textually supportable theory about how the written word can change the thinking of at least a segment of society in a particular time and place. What Olson offers is not only a theory about reading in early modern Europe, but, perhaps equally importantly, a methodology for approaching questions about the impact of language (and language technology — in this case, of printing) on thought.

While Olson's book ends with some useful insights on the growth of modern psychology, the rise and fall of empiricism and on post modernism, Olson does not deal with communicative technologies after the printing press. Similarly, though McLuhan had much to say (though without Olson's methodological rigor) about the printing press and communicative media, his pronouncements ended with television. Dying in 1981, McLuhan did not experience the computer revolution and, in particular, the emergence of cyberspace. Yet like writing and printing and television, cyberspace as a medium of linguistic exchange is likely to have a profound influence on the way we think and interact.

THE CYBERSPACE EFFECT

A change is upon us — nothing could be clearer. The printed word is part of a vestigial order that we are moving away from — by choice and by societal compulsion.... This shift is happening throughout our culture, away from the patterns and habits of the printed page and toward a new world distinguished by its reliance on electronic communications.

Birkerts, 1994:128

How does language conveyed by computers across a network — computer mediated communication — affect what we express, think and know? Although our primary mode of interacting with computers is now written (wide-spread voice recognition and video systems are still in the future), this style of written language is in many ways more akin to everyday speech than to the more formal writing we do when sending letters or memos via "snail mail." Specialists on communication in cyberspace (e.g., Bolter, 1991; Herring, 1996; Hiltz and Turoff, 1993; Jones, 1995) are now analyzing the formal language characteristics of e-mail, computer conferencing, chat rooms and hypertext.

Meanwhile, one of today's foremost media gurus, Nicholas Negroponte, founder and director of the Media Lab at the Massachusetts Institute of Technology, has collected his thoughts on the more general question of how computers are shaping who we are into a book aptly titled *Being Digital*. While not exclusively focused on the effects of cyberspace on language transmission, Negroponte — reminiscent of McLuhan — offers insightful observations and, yes, pronouncements that bear scrutiny.

The transition from McLuhan's mass media to global networking has brought about a number of shifts in the way we think about and use language. Some have even argued (e.g., Fowler, 1994b) that cybernauts are entering a period of what Ong (1982) called secondary orality, that is, a literate culture becoming once again more oral. Like pre-literate man (or woman), says Fowler, producers of electronic texts are no longer seeing their written products as permanent, no longer undergirding all text with logical analysis, no longer fostering a distance between author and reader, and no longer emphasizing individualism over community.

The emergence of cyberspace presages more than just a new medium for swapping messages. If Negroponte, Fowler and others are right, global networking will redefine how we work, how we socialize and how we learn.

Since modern computer technology has largely sprung from institutions of higher learning (and think-tanks that its graduates populate), it is hardly surprising that developers of computer hardware, software and networking have coupled their technological visions with blueprints for new forms of education. In order to understand the potential effects of cyberspace communication on language and thought, we first need to look more closely at the pedagogical traditions from which current computer models of education have sprung. As we will see, these evolving educational traditions themselves make important assumptions about the relationship between reading, writing and learning.

The link between pedagogy, language and technology is the subject of section 2 below. Using what we have learned, we attempt in section 3 to look ahead to literacy and pedagogy in the twenty-first century.

2 CONVERGENCES BETWEEN PEDAGOGY AND TECHNOLOGY

Just as writing has a history, so, too, do theories of education. In the United States, twentieth century assumptions about education have coalesced with emerging computer technologies to create a model of pedagogy radically different from the one we have known since the development of printing.

Where have these modern assumptions come from?

PEDAGOGICAL MODELS

Aquinas considered 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.

McLuhan, 1962:23

A comparative history of education reveals two traditional approaches to pedagogy: either on-the-job training from one who already "knows" (the apprenticeship system) or a somewhat more abstracted model in which the "knower" (the teacher) imparts information (e.g., about geography), works on skills training (e.g., addition), introduces texts (e.g., literature) or offers guidance on how to think through problems (e.g., logic), but does so acontextually. This latter acontextual scheme has characterized formal Western education since at least the middle ages. However, both models assume that a teacher (who knows more about the topic than the learner) is essential to the pedagogical process.

In contrast to these teacher-centered (or expert-centered) models is a more contemporary learner-centered perspective: No one can actually teach another person anything; people learn on their own. Teachers are best seen as facilitators who point the learner in useful directions. "Self-made" men and women have always been the product of learner-centered rather than teacher-centered education.

How have language and technology shaped our views of the roles of teachers and learners? At least through the middle ages, teaching was taken to be a spoken, not a written activity. Hence, McLuhan's comment on Aquinas. Olson would probably phrase it somewhat differently, arguing that until the late middle ages or the early modern period, expository writing had not yet developed many of its contemporary representational functions (other than reminding us of what had been said). Only when the written word took on a life of its own — a process greatly facilitated by the printing revolution, which made it economically possible for readers (and learners) to study texts independently — did individual reading become a widespread form of pedagogy, either teacher-directed or student-centered.

For most of modern European history, formal pedagogy has been text-driven and teacher-directed. However, a chain of ideas and events in twentieth century America has been shifting the balance away from teacher-centered and perhaps away from text-based learning as well.

The seeds of learner-centered pedagogy in the United States were sewn in the first half of this century, when John Dewey argued that learning is best done through individual exploration, not through lecturing or memorization. While Dewey's educational theories were more often espoused than implemented, they prepared the ground for an educational reorientation that grew out of three transformations in the 1960s: one based in psychological theory; a second, in education (and the economy); and the third, in politics.

For the first half of the twentieth century, American psychology was dominated by a behaviorist model. Zoological organisms learn, so Watson and Skinner believed, by having their behaviors shaped by others. Explanations of animal (including human) behavior that necessitated positing unobservable mental constructs were eschewed. The behaviorist model naturally implies a strong role for teachers in the educational process to dole out rewards and punishments.

In Europe, a very different model of psychology (though not necessarily of formal education) was being explored. Jean Piaget's theory of genetic epistemology argued that children already contain the germs of knowledge. By interacting with the physical and social environment, this knowledge emerges according to a biologically predetermined schedule. Like packaged mixes to which you just add water, children only need an environmental catalyst to take off. During the 1960s, American psychologists, increasingly dissatisfied with behaviorism, began reading and teaching Piaget's work.

The second variable was the explosion of higher education. Funded by America's post-war prosperity and justified in part as a means of training Cold Warriors, higher education expanded several hundred fold. In 1960, barely five percent of high school graduates had completed college. By 1990, the number had

risen beyond twenty percent. Many more held associate degrees or enrolled in college courses.

But what should we be teaching this larger, increasingly diverse group of students? The post-World War II curriculum, grounded in the Western classics, overviews of history and the rudiments of science and mathematics, had been designed for a smaller and culturally more homogeneous clientele. Could we — should we — ask millions of students each year to read the *Iliad* and study the calculus?

The answer came, in large part, from student response to another 60s experience: the Vietnam War. We shouldn't be teaching them much of anything. They could learn more by themselves. And so the era of individually designed majors, group independent study projects and the pass/fail curriculum, introduced at the end of the 1960s, pervaded campuses around the country. Faculty were, at best, facilitators, not sources of "the knowledge."

In sum, by the end of the 1960s in America, the ideological foundations for learner-centered pedagogy supplanting teacher-centered education had been laid. This timing happened to coincide with the burgeoning computer revolution. Although mainframes had not yet begun yielding to minicomputers, and the microcomputer was still a decade away, a number of computer scientists — from Alan Kay (godfather of graphical interfaces, the mouse and the notebook computer) to Seymour Papert were envisioning critical links between computers and education.

COMPUTING AND PEDAGOGY

The essence of education is instruction — something some people do to other people, usually with required "discipline." The word pedagogy comes from a Greek verb meaning "to lead," and education itself is from the Latin word meaning "to lead forth" — both imply the active leader herding a flock of passive followers. But the essence of the coming integrated, universal, multi-media, digital network is discovery — the empowerment of human minds to learn spontaneously, without coercion, both independently and cooperatively. The focus is on learning as an action that is "done by," not "done to," the actor.

Perelman, 1992:23

The educational philosophies of the late 60s took deep root in the computing world, especially as it was emerging at the MIT. Piaget's work on genetic epistemology undergirds the work of MIT Professor Seymour Papert, inventor of LOGO, on how children can use computers to learn. Countering the late 60s image of computer users as lone hackers working through the night in the bowels of a computing center, Papert saw computers as a way of bringing learners together to create knowledge (e.g., Papert, 1980). What were their teachers good for? Facilitating, of course.

The emergence of cyberspace in the late twentieth century opens the possibility for yet another revolution in pedagogy, driven by a writing-based technology. Much as Luther made it possible (through the art of translation and the power of the press) for all Christians to read the Bible themselves, the Internet is rapidly enabling anyone to have access to any book, monograph or article in the world.

The Internet redefines pedagogy in two important ways. First, it offers a medium that potentially obviates the need for the traditional teacher. Purveyors of information or knowledge post their offerings on the Net (entire courses of study, books, personal musings, local basketball scores), not knowing who their potential "students" may be. End-users can choose what materials they wish to access, when to view them, what to print out and whether to click to another site when boredom sets in. Learning is in the eyes (and hands) of the beholder.

Second, the medium is written, but different from writing in the age of printing (from Gutenberg's press to the early 1990s). Unlike printed texts that are archived in libraries or can be purchased in bookstores, Internet text is more ephemeral. It is problematic to cite in a bibliography something pulled off the Net, since the item may be gone by the time a reader goes looking for it. Moreover, as we will see, the relationship between author and reader is potentially as transformed (and as transformative) as the relationship between reader and text that emerged roughly five hundred years ago.

What are the educational implications of this new learner-centered, structurally ephemeral computer mediated communication engine? In the next section, we will try to find out.

③ WRITING, LEARNING AND KNOWING IN THE TWENTY-FIRST CENTURY

If attempts to explain conceptual change in the past (such as the impact of literacy on thought) are often conjectural at best, second-guessing the future is riskier still. Yet such a gedanken experiment is appropriate in light of the profound and pervasive impact that computers seem poised to have upon our social lives as language users and as learners.

What will this future be like? Assuming for the moment that Negroponte and his compatriots are right in their predictions, the new technologies appear to be leading us in several directions that are at odds with the legacies of writing described by Olson. Before we can judge whether such changes will be for good or for ill, let us be clear about what these legacies are.

LEGACIES OF WRITING

It is the representation of language by means of visible marks that, at least in Western culture, turns language into an object of thought and analysis.

Olson, 1991:267

In retrospect, we can reasonably credit literacy (and the pedagogical process through which it has generally been conveyed) with bringing about three transformations in the West: our notions of individualism, our ability to be linguistically self-reflective and our assumptions about interpretation.

As we said earlier, Snell and others argue that the distinct concept of mind (internal thoughts and feelings, separate from action) only arose roughly 2500 years ago in Greece, coterminous with (and, Olson posits, perhaps aided by) the rise of Greek literacy. This notion of mind, it is claimed, underlies, in turn, the Western concept of the individual. While the modern Western notion, Olson argues, is honed by events particular to Europe (including the decline of feudalism, and the rise of capitalism and of democratic organizations — Olson, 1994:25), Western individualism is also, as in early Greece, the product of literacy. The essence of this modern Western individual-as-reader is captured by the sociologist David Riesman:

If oral communication keeps people together, print is the isolating medium par excellence.... The book, like the door, is an encouragement to isolation: the reader wants to be alone, away from the noise of others.... Thus the book helps liberate the reader from his group and its emotions, and allows the contemplation of alternative responses and the trying on of new emotions. (Riesman, 1960: 114, 112-113)

Needless to say, literacy seems to be a necessary but hardly a sufficient feature in the emergence of individualism. Non-Western countries, such as Japan, have developed high levels of literacy, but remain predominantly group oriented.

Analogous to the emergence of social individualism is the capacity for logical self-reflection. As we saw in our discussion of metalanguage, literacy (typically coupled with schooling) boosts the learner's ability not only to analyze language but more generally

to think clearly and logically. If Olson and his colleagues are correct, literacy turns "linguistically-expressed propositions into objects of thought" (Olson and Astington, 1990:705). Such transformative effects emerge time and again, wherever learners become literate.

And third, literacy as we know it in the contemporary West entails a set of presuppositions about how we encounter a text. Olson argues that a new model of reading emerged (at least for expository prose) that made the reader responsible for interpreting what message the writer intended and how the writer intended the message to be taken. Similarly, up through most of the twentieth century, the majority of authors of fiction have presupposed a model of story-telling in which the reader is asked to suspend disbelief, in return for which the writer promises a plot with a beginning, middle and end.

In the coming world of cybertext and cyberpedagogy, these legacies are subject to being recast if not abandoned. Assumptions about individualism, legitimacy of traditional interpretation and continuity of text are directly being called into question. The development of meta-linguistic ability, heavily a product of formal education, may have an equally uncertain future as pedagogy becomes more student-driven.

What precisely does this projected future look like?

THE FUTURE OF READING AND WRITING

The reader of a hypertext is always at least the co-author of the "text" that is read; sometimes the reader is the primary author.

Fowler, 1994b

The future of reading as the modern world has known it — the solitary reader engrossed in a book for pleasure or intellectual enrichment, working to discern the intended meaning of the author — was seen as imperiled even before the coming of the microcomputer. Writing in 1972, George Steiner observed that:

So far as I can make out, the prime requisites of concentrated reading in the old sense — aloneness, silence, contextual recognitions — are growing rare in the very milieu in which we would most crucially look for them — that of the undergraduate. (Steiner, 1972:206)

With the coming of multimedia CD ROMs and the Shakespearean corpus on-line, many wonder whether the allure of the new technology will be the final nail in the coffin of the traditional book.

What is this technological challenge to the traditional linear, durable model of the written word? It is the networked word — a communicative network in which messages are swapped across the hall or around the world, where the distinctions between author and reader blur, and where composition becomes something of a performance art.

The networked word comes in four main varieties. The first, which we might call stand-alone postings, are the closest to traditional writing. Included here are scholarly papers, electronic journals, the contents of Web sites — anything an audience is able to access. Like the authors of books in the library, the authors of such postings do not know in advance who their readership will be. And while they may accept comments and queries, authors presume that their work is at least a reasonably finished piece that will have some longevity.

Although the format of postings is often indistinguishable from that of their hard-copy cousins, the means by which we access them may change the relationship between reader and text. As both Havelock and Eisenstein have argued, encountering the word in a visible (written) and durable (manuscript or print) format affords readers the opportunity for reflection and analysis. Havelock emphasizes the potential for focusing on the logic of an argument literally laid before you, while Eisenstein points out the importance of easily accessible (and affordable) printed texts for comparative scholarship. On-line postings can, of course, be printed out, though the technology propels us to view rather than analyze, cruise rather than ponder, "hit" rather than read. Some postings now come complete with counters recording how many times the site has been visited. On-line scholarship risks succumbing to the lure of the best-seller list.

The second type of net writing is dialogue with known interlocutors (or at least with correspondents who introduce themselves under their actual names, genders and personae). E-mail and

computer conferencing are the two main venues for this kind of dialogue. Deriving characteristics from both speech and writing, such computer mediated communication between known correspondents is composed with the assumption it will be ephemeral and not of lasting consequence. It seems plausible to argue that just as Web crawlers seem to hasten you forward to view the next set of ten hits in your search, the "Send" button in e-mail eggs you on to release your message without editing. E-mail memos tend to be chock full of typos and grammatical nonsense we would never dream of allowing in a traditional memo, just as some stand-alone postings of "research papers" are littered with unbelievably blatant errors.

The third category of network composition is anonymous interaction. This is the world of chat groups and MUDs (originally "multi-user dungeons" but now often characterized as "multi-user domains"), where users converse with strangers, play out alternative identities and create fantasy worlds. As with e-mail and computer conferencing, the transcripts of such exchanges are not intended to be archived.

But there is also a fourth kind of net writing — one that aspires to greater intellectual and literary stature. This is the realm of compositional hypertext. To most computer users, "hypertext" is a generic term referring to a principle (proposed by Vannevar Bush in the mid 1940s) for creating conceptually useful links between different texts or portions of texts. The models that readily come to mind are interactive encyclopedias, hypercard stacks or, most recently, Web pages. But the domain in which hypertext was first actualized in modern computing was written composition (hence our term "compositional hypertext"). In the words of Ted Nelson, who coined the term hypertext in the 1960s, "Literature is a system of interconnecting documents." (Nelson, 1984:2)

Compositional hypertext (and would-be literature) creates "networks of alternate routes (as opposed to print's fixed unidirectional page-turning) ... in which reader and writer are said to become co-learners or co-writers" (Coover, 1992:23). In this non-sequential mode of writing, multiple users interactively choose branches of the story (or poem) to develop, yielding a multi-authored product that is itself open to subsequent change

(see Bolter, 1991; Landow, 1992; Lanham, 1993). Software tools such as Storyspace and Intermedia offer writers (and students of writing) the wherewithal to create and navigate within such non-linear compositions.

The assumptions underlying compositional hypertext are clearly at odds with those of traditional print culture. Fowler (1994a) enumerates some of the familiar literary presuppositions against which compositional hypertext rebels:

- 1) authors can be distinguished from readers
- 2) a text is the property of its author
- 3) a text is (or should be) fixed, unchanging, unified and coherent
- 4) a text should speak with a single, clear voice
- 5) a text has a beginning and an ending, margins, an inside and an outside
- 6) the center of a text, of a group of texts or of anything else, is fixed, stable and single
- 7) a text is (or should be) clearly organized in a linear, hierarchical structure
- 8) generally speaking, an author writes by himself, and a reader reads by himself

Paradoxically, some of the strongest voices defending traditional (linear, single-authored, "finished") works of literature come from computer pundits. Bill Gates assures us in *The Road Ahead* that narrative fiction will remain largely untouched by the electronic revolution because novels are (at least historically) linear and won't benefit from random access. Negroponte has no intention of eliminating the classical literary form (and its printed presentation) either:

Interactive media leaves very little to the imagination. Like a Hollywood film, multimedia narrative includes such specific representations that less and less is left to the mind's eye. By contrast, the written word sparks images and evokes metaphors that get much of their meaning from the reader's imagination and experiences. When you read a novel, much of the color, sound and motion come from you. (Negroponte, 1995:8)

Is compositional hypertext as a mode of authorship a passing fancy, or will it fundamentally alter our modes of reading and writing? That depends upon whom you ask. While traditional masters programs in creative writing don't seem at a loss for candidates, if we believe the computer gurus, the days of the individual author are numbered:

As we return [from a print culture, where a story becomes "frozen"] to continuous information [of the electronic age], we can expect the importance of authorship to diminish. (Barlow, 1994:90)

THE FUTURE OF LEARNING

Early in the next millennium ... schools will change to become more like museums and playgrounds for children to assemble ideas and socialize with other children all over the world.

Negroponte, 1995:6

Compositional hypertext presupposes that intellectual activity is group oriented. Belief that the whole is greater than the sum of its parts, that the new tribalism heralded first by McLuhan (with his image of the global village) and now by advocates of the virtual community (e.g., Rheingold, 1993) is superior to isolated individualism, naturally leads to a more generalized communal model of learning:

Work in an environment permeated by electronic media tilts inevitably toward collaboration. Thus, labor in an electronic "information economy" takes on a new, intensely social character. (Fowler, 1994b)

Yet paradoxically, at the same time that the computer community is stressing the importance of collective learning, it is also predicting an intensely individualized pedagogical future. The growing development of technological tools enabling customized access to information would appear to foster solitary inquiry. Negroponte invites us to behold such individual opportunities:

Take the weather as an example [of how in the future, bits of information will not be confined to any specific medium when they leave the transmitter]. Instead of broadcasting the weatherman and his proverbial maps and charts, think of sending a computer model of the weather. These bits arrive in your computer-TV and then you, at the receiving end, implicitly or explicitly use local computing intelligence to transform them into a voice report, a printed map, or an animated cartoon with your favorite Disney character. (Negroponte, 1995:55)

Or consider his vision for books of the future:

In the post-information age, we often have an audience the size of one. Everything is made to order, and information is extremely personalized. (Negroponte, 1995:164)

Like personal pizzas, we can look forward to "books" for one, although once we eliminate the presupposition of a community of readers, it is no longer clear we are talking about the same notion of a book.

If Negroponte is right, it is the potential reader (or consumer via some other medium) who is in the driver's seat. Negroponte mints a useful image for characterizing the shift of pedagogical authority: a distinction between "pushing" and "pulling" information:

Being digital will change the nature of mass media from a process of pushing bits at people to one of allowing people (or their computers) to pull at them. This is a radical change, because our entire concept of media is one of successive layers of filtering, which reduce information and entertainment to a collection of "top stories" or "best-sellers" to be thrown at different "audiences." (Negroponte, 1995:84)

In the same vein, John Barlow, drawing upon the back-to-tribalism motif of latter day McLuhanites, speaks of us becoming information "hunter-gatherers." (Barlow, 1994:90)

The distinction between "pushing" and "pulling" information encourages us to reassess our assumptions about the roles and responsibilities of readers and writers in any medium (be it printed linear texts or interactively accessible hypertexts). For the sake of discussion, let us limit the context to expository writing, be it essays, philosophical discourse, historical recounting or sociological analysis. In our classical model of written language, the writer is responsible for laying out a coherent argument that guides the reader at each turn in making sense of what is being said. Readers, of course, have always had the prerogative to skip about in the text (to "pull" their own selection of information) or the potential to misread what the author intended. However, in principle, the author (sometimes supported by a classroom teacher) was available to steer the reader along the path of understanding. In exchange for being taken as authorities, writers have generally been subject to public standards. Finding one's way into print has typically (though admittedly not always) entailed a vetting procedure by which at least some people have judged the author as having something worthwhile to say.

But what happens to writers when the vetting process is suspended and to readers when there is no oversight as to what information is "pulled" (or "gathered") from where? Who will provide guidance on whether the texts (or sites) readers are accessing meet conventional standards of intellectual coherence or scholarly responsibility? Through what pedagogical process will readers or writers develop the tools for reaching such judgments? Can refereed on-line publications (which still take many months to produce) hope to compete with self-generated postings to the Internet that become available the moment the author is done composing? (See Taubes, 1996 for a discussion of on-line science articles.)

Does the computer presage the end of reading and writing and learning as we have known them?

BACK TO THE FUTURE

"I hope you don't think I'd ever do anything like that, I mean, just step out of the drier, if anyone were seeing me. It was just viewing."

"Same thing, isn't it?" asked Baley.

"Not at all the same thing. You're viewing me right now. You can't touch me, can you, or smell me, or anything like that. You could if you were seeing me. Right now, I'm two hundred miles away from you at least. So how can it be the same thing?"

Baley grew interested. "But I see you with my eyes."

"No, you don't see me. You see my image. You're viewing me."

"And that makes a difference?"

"All the difference there is."

Asimov, 1957:63

This dialogue from Isaac Asimov's *The Naked Sun*, written three decades ago, takes place on the distant planet of Solaria, where inhabitants almost exclusively "view" each other through trimensional imaging systems rather than meeting face-to-face. Plainclothesman Elijah Baley, a detective sent from earth to investigate a murder, has just tuned in the rather attractive Gladia Delmarre (wife of the victim), unwittingly catching her quite naked as she emerged from a shower. While Baley "reddened to his hair-line, and hastily turned away" (61), Mrs. Delmarre failed to see what the fuss was about. After all, Baley was "just viewing" her nakedness, not seeing it in person.

Does the world of the networked word portend communicative change as radical as that envisioned by Asimov on Solaria? The question bears exploring, especially since Asimov's vision bears uncanny resemblance to the newly emerging redefinition of relationships between interlocutors exchanging messages via computers.

Both trimensional viewing and e-mail are grounded in paradoxical assumptions about simultaneous closeness and distance. In the words of Robert Kuttner, describing e-mail exchanges with his daughter who had recently gone off to college:

There is something about e-mail, and its predecessor, letter-writing, that produces a comfortable blend of closeness and distance. That, in turn, lends itself to playful, safe intimacy. (Kuttner, 1995:A29)

Although both e-mail and letters share a common written modality, the social assumptions and expectations of users are becoming strikingly different. For starters, because e-mail is so easy to compose and send (you don't need to hunt up paper, a stamp or a mailbox), interlocutors (including Kuttner's daughter) will dash off dozens of e-mails a semester to people to whom they would somehow never get around to sending a single letter.

Second, unlike traditional letters (or even face-to-face speech), the networked word invites writers and readers very quickly to establish informal and frank social relationships with one another. Kuttner comments that he and his daughter are getting to know one another much better via e-mail than when they lived under the same roof. Contemporary college students sometimes report that e-mail has enabled them to reestablish ties with siblings they could not stand face-to-face. Anecdotally, e-mail users comment on how readily they adopt a casual tone — and often significant amounts of humor — with addressees they have never met.

But there is a third effect that the networked word seems to be having upon how we communicate within a social structure. In formulating both speech and traditional writing, we make certain presuppositions about the appropriateness of our formulating a message in the first place and about the willingness of our intended audience to receive that message. Exceptions notwithstanding (street corner evangelists, writers with little hope of being published), competent language users learn when to say (or write) what to whom and when to resign themselves to not getting their message across.

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The networked word seems to be changing this traditional model of communicative competence by rewriting the rules of access. At the most trivial level, we can send messages whenever it suits our convenience, irrespective of working hours or time zones. Much more profoundly, we appear to be changing the conventions of who has access to whom. We send e-mails to busy people on subjects we would not dream of interrupting them about with a telephone call or visit. And through e-mail, we gain access to interlocutors who might never see our letters or whose secretaries refuse to put our phone calls through.

What do emerging e-mail habits have to say about broader questions concerning the future of reading, writing and pedagogy? Just this: The networked word (as epitomized by e-mail) is radically redefining the relationship between message sender, recipient and the message itself. We are replacing the immediacy of "seeing" (seeing one another face-to-face, teaching face-to-face, developing an individual rapport with and response to a tangible text) with "viewing." This increasingly pervasive mode of communication creates a unique blend of closeness and distance that both loosens our metaphoric tongues and erodes a sense of verbal permanence.

Had Robin Hood learned rudimentary literacy and keyboarding, he might have felt quite at home with e-mail — or would he?

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Starting

with just a stone.

And now it's Futurism,

the modern world.

As transient is, i.e.,

life itself, a contemplative

world encountering trouble.

Transparencies,

euphoric groups of dynamic humans

starting up their purring motors, drawing

upon first light,

discarding

the grammatical order

of the past.

The author has counted the various kinds of "literacies" used by educational scholars as titles on papers indexed in the ERIC database 1980-1994. The resulting 197 different literacies are listed and divided into five categories: literacy on a topic (computer literacy), literacy among certain people (prison literacy), literacy for a certain purpose (functional literacy), the ability to handle materials in a certain format in literate ways (Braille literacy) and levels of literacy (basic literacy).

DIANNE G. KANAWATI HAS BEEN FASCINATED WITH THE ECCENTRIC NATURE OF ENGLISH GRAMMAR SINCE SHE TRIED EXPLAINING IT TO THAI COLLEGE STUDENTS IN HER PEACE CORPS DAYS. IN RECENT DECADES, SHE HAS TAUGHT ENGLISH AT THE SECONDARY AND POST-SECONDARY LEVELS. THIS ARTICLE BEGAN AS A VAGRANT CURIOSITY WHILE RESEARCHING HER DISSERTATION ON CULTURAL, FUNCTIONAL, AND CRITICAL LITERACIES AS CONSTRUCTS FOR APPROACHES TO GENERAL EDUCATION. DR. KANAWATI RECEIVED HER ED.D. IN CURRICULUM AND INSTRUCTION FROM THE UNIVERSITY OF GEORGIA LAST SUMMER.

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how CAN I BE LITERATE: COUNTING THE WAYS

To borrow a wonderful opening line, literacy stock has been bullish lately.¹ Not only is literacy a hot topic of discussion and publication, suddenly there seem to be just so many more ways of *being* literate — and, presumably, more ways of being illiterate as well. How did this plethora of literacies come about?

Part of the *literacy* phenomenon is due to the nature of the word *literacy*. It has, and always has had, two distinct meanings: one is the familiar "able to read and write" definition; the second is "command of a body of knowledge."² The use of literacy in this second sense has expanded exponentially in recent years and accounts for many of the *literacies* in circulation.

Besides the nature of the word *literacy*, the multiplication of *literacies* is also due to the nature of the English language. English has an exceptionally expansive and creative grammar which allows, even encourages, insouciant originality. English delights in new words (fax) and familiar words used in new ways (surf the net) or combined in new ways (liftoff, microchip). And, unlike many languages, English allows a variety of words to function as adjectives.

Adjectives function as adjectives, of course (sweet talk). Then there are the verb forms, including the -ing participle (running water) and the -ed or equivalent past participle (iced tea, forgotten melodies). Then there are the nouns. When placed in front of another noun, nouns can function as adjectives of composition (cotton shirt) or purpose (cake knife). So long as the correct order is maintained — which native speakers do quite intuitively — English allows adjectival constructions to indulge in prolonged concatenation without straining comprehension in the least. Consider, for example, a cheap little green plastic toy sports car.

So much flexibility can create a problem, however; the meaning is not always clear. Using a familiar example, a racing horse may be a horse *for* racing or a horse *that* is racing. When speaking, a shift in inflection pattern signals the distinction, but an author

ENDNOTES

1 VENEZKY, RICHARD L. 1993. "IN SEARCH OF THE MEANING OF LITERACY." *EDUCATIONAL RESEARCHER* 22:3, 34.

2 KINTGEN, E.R. 1988. "LITERACY LITERACY." *VISIBLE LANGUAGE* 22:2/3, 149.

must consciously compensate in other ways to avoid ambiguity. Nouns functioning adjectivally can also confuse. Would an iron cutter be made *of* iron or *for* cutting iron? Either interpretation is possible.

The nature of the word *literacy* combined with the nature of English, between them, have generated a great number of ways in which a person can be literate. Examining titles in the ERIC database for 1980–94, inclusive, indicates that educators felt moved to discuss almost two hundred different kinds of literacy during those fifteen years; that is, two hundred different kinds of modified literacy as opposed to plain, unmodified literacy. The modified literacies fall into five distinct and usually distinguishable groups.

GROUP 1.

The first group is Kintgen's "command of a body of knowledge": i.e., literacy about a specific topic. The adjectival construct may be in the form of a noun (Computer Literacy) or an adjective (Political Literacy). These may be distinguished by the transformation "literacy on the topic of [x]," where x is the modifying noun (e.g., Energy Literacy, literacy on the topic of energy) or the noun form of the modifying adjective (e.g., Religious Literacy, literacy on the topic of religion).

GROUP 2.

The second group includes literacy among a population sub-group. Examples include Adolescent Literacy, Adult Literacy and Workplace Literacy. These may be distinguished by the transformation "literacy among [x/s]" where x is a class of people, or "literacy among people in [x/s]," where x is a place or condition. Thus, Immigrant Literacy deals with literacy among immigrants, and Prison Literacy is literacy among people in prisons. ESL (English as a Second Language) literacy belongs in Group 2; ESL serves as shorthand for "non-native speakers of English," the target population.

GROUP 3.

A third group includes different purposes of literacy, distinguished by the transformation "literacy for [x] purposes." Functional Literacy is literacy for functional purposes, and Emancipatory Literacy is literacy for emancipatory purposes.

GROUP 4.

A fourth group includes the ability to deal in literate ways with ideas communicated in a particular format or through a particular medium, such as Visual Literacy and Braille Literacy. These may be distinguished by the transformation "literacy involving material delivered (in [x] form) or (through the medium of [x])." Thus, Prose Literacy is literacy involving material in prose (form), and Television Literacy is literacy involving material delivered through the medium of television.

GROUP 5.

A fifth group is concerned with different stages or levels of literacy itself. Early, emergent, crude and mature are examples of this category, which may be distinguished by the transformation "literacy which is at the [x] stage or level." Life-Long Literacy and Developing Literacy are special cases which subsume several levels.

So long as a newly encountered literacy can be instinctively placed in one of the five categories, it presents no particular problem. The literate reader can field newly encountered modified literacies with aplomb, so long as they intuitively correspond to one of the five groups. Literacy Literacy is a piece of cake — most of the time.

However, when the correct category is ambiguous or unidentifiable, confusion ensues. Whole Literacy, Full Literacy, New Literacy, Holistic and High Literacy are among those which mean something specific to the persons who coined them but need to be explained to everyone else.

Another kind of ambiguity can be found in such examples as Alphabetic Literacy. Should that be placed in group 1, literacy on the topic of alphabets? Or in Group 4, literacy involving material in alphabetic form? Out of context it may be impossible to know. Does Essayist Literacy belong to Group 2, literacy among essayists? Probably

not. Probably it ought to be placed in Group 3, literacy for essayist purposes. Even from the abstract included in the ERIC database the meaning of some literacies was unclear, and the same literacy is sometimes used differently by different scholars.

Identifying the five groups helps to explain why there are so many similar literacies. The distinctions among them are sometimes real and valuable, albeit subtle. For example, Science Literacy belongs in Group 1, literacy on the topic of science; Scientific Literacy belongs in Group 3, literacy for scientific purposes. Spanish Literacy is Group 4, literacy involving materials in Spanish (form), but Hispanic Literacy is Group 2, literacy among Hispanics.

Identifying the five groups also explains the penchant for doubly- or even triply-modified literacies. Sub-subgroups can be created using Group 2 + Group 2; for example, Black urban literacy or Adult ESL literacy. Group 2 + Group 4 yields Southern Sudan Local Languages Literacy. Other combinations are obviously possible.

Some literacies are used only once, by the author who coined them; others become part of the popular lexicon. Educators over the last fifteen years have spoken and/or written about no fewer than 197 different kinds of literacy; no fewer than 197 and quite possibly more. Someone else might have conceptualized the categories somewhat differently. I did not, for example, attempt to include examples of what seemed to be ordinary, unmodified literacy in a place (national literacy) or modified by adjectives denoting quality (accelerated literacy, contextual literacy, alternative literacy). Redundant literacies have been grouped together with the most common usage first. Differences among items in some groups — e.g., *Technological Literacy*, *Technical Literacy* and *Technologic Literacy* — if any, are obscure. Also uncertain is whether or not literacies become altered when compounded, as in *Scientific and Technological Literacy*. Some compounds are hyphenated (Visual-Verbal Literacy) rather than compounded with "and"; these are presumably merged into something approaching transcendental unity, yet not quite homogeneity.

The five groups are almost exhaustive, but a few rogue literacies just do not fit anywhere. Library Literacy, for example, is not what librarians strive to master; instead, it turns out to be Adult Literacy programs which are based in libraries. Lay Literacy is defined as the assumptions about literacy shared by members of a literate society. Sometimes modification has simply gone too far; consider, for example, African Oral Tradition Literacy or Convenience Store Workplace Literacy. The vast majority of literacies, however, sort themselves nicely into the five groups.

An interesting side effect of the many modified literacies is that what I have called "ordinary, unmodified" literacy — the ability to read and write — is now often modi-

fied, as it has been here, to distinguish it from the various upstart literacies. Literacy in its "ordinary, unmodified" sense is variously referred to as Conventional Literacy, Traditional Literacy, Reading and Writing Literacy or Book Literacy. Book Literacy has presumably arisen as a tongue-in-cheek contrast to Computer Literacy.

LISTING THE LITERACIES — COUNTING THE WAYS

The list of 197 literacies which follows may be useful as a reference list. One-hundred ninety-seven seems already more than enough literacies to worry about and, hopefully, anyone who feels compelled to write about literacy, any literacy, can find a term already on the list that will serve the purpose. For easy reference, the literacies are listed in the five groups described above; ambiguities are noted and a few explanatory notes thrown in.

GROUP 1: COMMAND OF A BODY OF KNOWLEDGE.

- ACADEMIC LITERACY [or Group 3]:
 - Subject-specific literacy
 - Content-area literacy
 - Content literacy
- ALPHABET LITERACY
- ART LITERACY
- ASSESSMENT LITERACY
- AUTHORSHIP LITERACY
- AGRICULTURAL LITERACY
- BIOLOGICAL LITERACY:
 - Life-science literacy
- CASH-CULTURE LITERACY
- CHRISTIAN LITERACY
- CHEMICAL LITERACY
- CITIZENSHIP LITERACY
- CIVIC LITERACY [or Group 3]
- CONSTITUTIONAL LITERACY
- COMPUTER LITERACY [or Group 4]:
 - Microcomputer literacy

- Personal computer literacy
- COMPUTER SCIENCE LITERACY
- DEMOGRAPHIC LITERACY [or Group 4]
- DIASPORA LITERACY
- DISCIPLINE LITERACY
- DRAMATIC LITERACY
 - Theater literacy
- ECONOMIC LITERACY
- ECONOMIC NEWS LITERACY
- EDUCATIONAL LITERACY [or Group 3]
- ENERGY LITERACY
- ENVIRONMENTAL LITERACY
 - Ecological literacy
- ETHNIC LITERACY [or Group 2]
- GEOGRAPHIC LITERACY [or Group 4]
 - Geography literacy
- GEOLOGICAL LITERACY
- HISTORICAL LITERACY
- INFORMATION TECHNOLOGY LITERACY
- LEGAL LITERACY
- LEGISLATIVE LITERACY
- LITERACY LITERACY
- MAP LITERACY
 - Cartographic literacy [or Group 4]
- MATHEMATICAL LITERACY [or Group 4]
- MEASUREMENT LITERACY
- MEDIEVAL LITERACY [or Group 2]
- MORAL LITERACY [or Group 3]
- MULTI-CULTURAL LITERACY [or Group 3]
- MUSIC LITERACY
 - Rhythm literacy
- POLITICAL LITERACY [or Group 3]
- PSYCHOLOGICAL LITERACY
- QUANTITATIVE LITERACY
- RELIGIOUS LITERACY
- RISK LITERACY
- ROBOTICS LITERACY
 - Robotics and automation literacy
- SCIENCE LITERACY
 - New Science literacy
- SOMATIC LITERACY

- STATISTICAL LITERACY [or Group 4]
- SYSTEM LITERACY
- TECHNOLOGICAL LITERACY [or Group 3]
 - Technology literacy
 - Technologic literacy
 - Technical literacy
- WATER LITERACY
- WHOLE LANGUAGE LITERACY

GROUP 2. LITERACY AMONG A POPULATION SUB-GROUP.

- AMERICAN LITERACY
- ADOLESCENT LITERACY
 - Youth literacy
 - Young adult literacy
- ADULT LITERACY
- AMISH LITERACY
- BLACK LITERACY
- COMMUNITY LITERACY
- DEAF LITERACY
- EARLY CHILDHOOD LITERACY
 - Nursery literacy
 - Prekindergarten literacy
 - Preschool literacy
 - Kindergarten literacy
- ELEMENTARY LITERACY [or Group 5]
 - Third-grade literacy
- ESL/ESOL LITERACY
- ETHNIC LITERACY [or Group 1]
- FAMILY LITERACY
 - Home literacy
 - Intergenerational literacy
- HAITIAN CREOLE LITERACY
- HISPANIC LITERACY
- MIDDLE-GRADES LITERACY
- INTERCULTURAL LITERACY
- MALE/FEMALE LITERACY
- MATURE LITERACY [or Group 5]
- MEDIEVAL LITERACY [or Group 1]
- MICMAC LITERACY

- NATIVE LITERACY
- POPULAR LITERACY
- PRISON LITERACY
- RURAL LITERACY
- SCHOOL LITERACY [or Group 3]
 - Schooled literacy [or Group 5]
- SENIOR LITERACY
- SOCIETAL LITERACY
- TEACHER LITERACY [computer literacy among teachers]
- URBAN LITERACY
- WOMEN'S LITERACY
- WORKPLACE LITERACY
 - Workforce literacy
 - Worksite literacy
 - Worker literacy
- WORLD LITERACY
 - Global literacy
 - Universal literacy

GROUP 3. LITERACY FOR SPECIFIC PURPOSES.

- ACADEMIC LITERACY [or Group 1]
- CIVIC LITERACY [or Group 1]
- COMMERCIAL LITERACY
- COMPETITIVE LITERACY
- COMPUTING LITERACY
- COOPERATIVE LITERACY [using cooperative learning to increase literacy and numeracy skills]
- CRITICAL LITERACY
- CULTURAL LITERACY
- CROSS-CULTURAL LITERACY
- EDUCATIONAL LITERACY [or Group 1]
- EMANCIPATORY LITERACY
 - Freirean literacy
 - Liberatory literacy
- ESSAYIST LITERACY
- FUNCTIONAL LITERACY
 - Practical literacy
 - Daily-living literacy
- JOB LITERACY

- Vocational literacy
- Occupational literacy
- MORAL LITERACY [or Group 1]
- MULTI-CULTURAL LITERACY [or Group 1]
- OFFICE LITERACY [includes traditional, cultural and computer literacies]
- ORGANIZATIONAL LITERACY
- PARTICIPATORY LITERACY
- PERSONAL LITERACY
- POLITICAL LITERACY [or Group 1]
- PROGRAMMING LITERACY
- SCHOOL LITERACY [or Group 2]
- SCIENTIFIC LITERACY
 - Scientific and Quantitative literacy
- SURVIVAL LITERACY
- TECHNOLOGICAL LITERACY [or Group 1]

GROUP 4. THE ABILITY TO DEAL IN LITERATE WAYS WITH IDEAS COMMUNICATED IN A PARTICULAR FORMAT OR THROUGH A PARTICULAR MEDIUM.

- AESTHETIC LITERACY
- ALPHABETIC LITERACY
- BRAILLE LITERACY
- CARTOGRAPHIC LITERACY [or Group 1]
- CHINESE CHARACTER LITERACY
- COMPUTER LITERACY [or Group 1]
- DOCUMENT LITERACY
- ELECTRONIC LITERACY [computer + CD-ROM interactive]
- ENGLISH LITERACY
- FILM LITERACY
- GEOGRAPHIC LITERACY [or Group 1]
- GRAPHIC LITERACY
- HYPERTEXT LITERACY
- SECOND-LANGUAGE LITERACY
- INDIAN-LANGUAGE LITERACY
- INFORMATION LITERACY
 - Information media literacy
- LANGUAGE LITERACY
- MATHEMATICAL LITERACY [or Group 1]
- MEDIA LITERACY

- MOTHER TONGUE LITERACY
 - First-language literacy
 - Native-language literacy
- MULTI-LITERACY [includes reading/writing/mathematics/computer]
- MUSICAL LITERACY
- NEW LITERACY [combines traditional and technological media]
- NEWSPAPER LITERACY
- ORAL LITERACY [includes rhetoric and speech-making]
- PICTORIAL LITERACY
- PRINT LITERACY
 - Text-based literacy
- PROSE LITERACY
- READING LITERACY
- SPANISH LITERACY
- STATISTICAL LITERACY [or Group 1]
- TELEVISION LITERACY
- VERBAL LITERACY
- VERNACULAR LITERACY
- VISUAL LITERACY
- VISUAL-VERBAL LITERACY
- WRITTEN LITERACY
 - Writing literacy

GROUP 5. DIFFERENT STAGES OR LEVELS OF LITERACY.

- BASIC LITERACY
- COMMON LITERACY
- CRUDE LITERACY
- DEVELOPING LITERACY
- EARLY LITERACY
- ELEMENTARY LITERACY [or Group 2]
- EMERGENT/EMERGING LITERACY
- FULL LITERACY
- HIGH LITERACY
 - Higher literacy
 - Low literacy
- HOLISTIC LITERACY
- INITIAL LITERACY
- LIFE-LONG LITERACY
 - Life-span literacy

- Lifetime literacy
- MATURE LITERACY [or Group 2]
- SCHOOLED LITERACY [or Group 2]
- POST-LITERACY
 - Pre-literacy
- POSTMODERN LITERACY
- WHOLE LITERACY

A final note: Many of these 197 literacies were used only once or by only one person, thereafter to fall into eternal obscurity. For those who feel they must coin a new literacy of their own, I offer a bit of advice.

When a new literacy construct appears, several labels may vie for acceptance at first. For example, Workplace Literacy, Workforce Literacy and Worker Literacy all appeared at about the same time, but Workplace Literacy gained popular acceptance and the other two forms became increasingly rare. This is a typical pattern. The form which survives is the one which has a conference, then a newsletter, then state or federal funding — all in its name.

So for those who feel the need to create an original literacy, your literacy may still prevail where others have failed: Present a report, hold a conference, edit a publication, coordinate a project. While we are counting the ways to be literate, we can always count one more.

In the stylistic category
we have this man at his word-machine,
this displaced person of juxtapositions
processing art in an unusual stretch
of Delta sea-miles.

The property of words strung together.
defining and redefining a lifetime, sweet seasons
gone, or rather they may still depict.
Symbols and transformations, in
other words,
the strange beauty
of being.

Over the last few decades, puns have become increasingly common in commercial texts ranging from print advertising ("Campbell's has something that will bowl you over") to T-shirts ("The Puck Stops Here.") The trend is surprising both because the pun is an intricate as well as a literary device and because advertisers usually avoid the risks of using humor as a selling strategy. The appeal of the pun appears to be its stylishness, which provided it with a place in the pop art movement and the culture of the 1960s, and its simultaneity, which has made it the print medium's competitor of the attention-grabbing television commercial. Recent studies argue that the word play of T-shirts and bumper stickers represents a non-establishment, anti-elitist voice. But in this essay the author suggests that puns used by both corporate advertisers and car owners alike reflect a commercial influence on the language of public texts all across the culture, and a mingling of business and art that is characteristic of postmodernism.

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puns, public discourse and postmodernism

They are everywhere.

In print ads — for soup,
"Campbell's has something that will bowl
you over,"
— for the Toyota Camry,
"A styling so classic, in fact, over two million
people have been moved by it,"
— for Chinese stir-fry,
"Create a wok of art in 8 minutes."
As names of businesses — the restaurant called
"The Grill from Ipanema."
On shopping bags — for a department store, in December,
"We have the gift for giving."
Even on the cover of the 1995 federal tax form packet:
"Get the credit you deserve."
Bumper stickers —
"Get a Life. Be a Christian."
Billboards —
"Children should be seen and not hurt."
Trucks — on the side of the exterminator's,
"The Bug Stops Here."
T-shirts — for a hockey team,
"The Puck Stops Here."
Academic offerings —
"The Cyberpowers That Be,"
at New York University.
Book titles — about education and community service,
Service Matters, and its statistical sequel,
Service Counts.
Magazine headings and headlines — from one issue of
Psychology Today:
"The FDA opens its mind"
(about psychedelic drugs),
"Model existence"
(fashion models);
and puns on syntax rather than word meaning, from the same issue,
"Like mommy, like baby,"

"To fight or not to fight,"

And the close relative of the pun, the rebus, on all those license plates
in which letters and numbers stand for words —

"FREE₂B."

And the telephone "numbers" —

1-800-CONTACT.

I have been intrigued over recent years that such tricky — sometimes even obscure — word play has become so popular, so vastly appealing that advertisers will spend big money on it and so many proud car owners will glue it to their cars. Who would have thought that this rather refined humorous device, the pun, would become such a routine way to address a mass audience in late-twentieth-century America (and England as well — less so on the Continent)? Other cultures and periods have their distinctive genres of short, colorful, public texts — the proverb, the haiku, the headline. We have the pun. What's going on here?

Puns in some of the contexts illustrated above have been discussed in individual studies that this essay will summarize, but I also want to look at them across the board, as a verbal device whose distinctiveness is its unexpected popularity. It is the range of use of the public pun, its commonality in everything from corporate ads to countercultural bumper stickers, that suggests its potential relevance for questions about the current level of society-wide literacy and about the postmodern relationship among the consumer, culture and capitalism.

ANATOMY OF THE PUN

In an era when not only products but images and ideas as well are for sale, the pun has some unique qualifications for the task of public relations. Consider its anatomy. Like their literary siblings, public puns get their punch not only from the play of sound and word meaning but also from the play between the literal and the metaphoric (or at the very least between the concrete and the abstract) (Redfern, 138). The advertising pun

usually starts from the metaphor embodied in a cliché and then turns us to the concrete product. A stunning example is the favorite of one English copywriter, for an airline that transported passengers directly from the plane to their hotel: "Out of the flying plane into the foyer" (Bernstein, 147). The metaphorical frying pan that in the original proverb reads as a symbol, an equation, loses this dimension and conflates to a literal object that is the focus of the sale — the flying plane. Conversely, the puns on T-shirts, bumper stickers and other displays that are selling not a product but a group's or a person's reputation usually work the other way around, taking a literal object and turning it metaphorical. "Nurses call the shots"; the injections that they give become a metaphor for the authority they carry. (The rebus license plates operate similarly — working from literal numbers and letters to the colorful claim.)

So puns are useful in this era of publicity in part because they are ambidextrous; either the literal or the metaphorical side can be foregrounded; they can either throw the spotlight on an actual object or they can jazz up the imagery of the bombast.

THE RISE OF THE PUBLIC PUN

Still, there is an agility in all this that is more than one might expect from the consumer or the casual reader. Amid all the concerns about the popular state of print literacy, here is a particular literacy that is evidently widely practiced and yet little noticed — an eagerness to decipher and a practiced skill at sorting out simultaneous verbal meanings. I think that ironically television commercials have probably helped at honing this ability. Puns themselves rarely appear on television commercials. Television ads are too busy — voices, pictures, graphics, captions, music, a story line, all thrown at us at the same time — for the moment of leisure that a pun requires. But television commercials have trained us to decode and synthesize simultaneous fragments of a single message and to do so very quickly. The pun in its simultaneity is electronic. It is the print media's equivalent of the television ad.

But aside from the influence of television, why now? What is there about the culture of the last couple of decades that has so nurtured the public pun? For even in print advertising, puns were a rarity until recently. Advertisers have generally and understandably been skeptical about the selling power of the joke. What early puns there were, were more likely to be found in England than in America, or France. Posters offered more room for humor than the cramped ads of early newspapers. One English poster showed a package of Golfer Oats in the foreground and Queen Victoria behind it over the caption, "The Two Safeguards of the Constitution" (Nevett). Such thoughtful wit was rare, though.

But in this century, as Greg Myers traces the trend in his book *Words in Ads*, humorous advertising has gradually become more common. After World War I, business leaders fretted about a post-war depression as post-war assembly lines produced a wider range than ever of consumables from cheap automobiles to bathroom fixtures. As a result, advertising agencies turned into the big businesses that they are today, and their new campaign strategy was to sell not just a product or a brand but a way of life. Laundry soap came to mean not cleaner clothes but relaxation and confidence. This strategy characterized advertising until after the next world war half a century later, but from the 1960s on, the challenge was that of addressing "the jaded consumer." "Ads now compete for attention in a world where they are ubiquitous, and where it is taken for granted that they are not to be trusted. One solution for the advertiser is to treat the consumer as an active and disenchanting interpreter." (Myers 26) The playfulness that characterized the work of the small creative firms of the sixties — in the funny Volkswagen ads, for example — faded in the 1970s as advertisers resumed their customary caution about using humor. But in a society increasingly saturated with electronic media, where ads sell not just soap but presidential candidates and universities as well, the entertaining and sophisticated approach to grabbing the reader's attention has made a steady comeback.

The psychodynamics of the advertising pun and similar devices have been thoughtfully studied, much of the analysis derived from Judith Williamson's influential 1978 work *Decoding Advertisements*:

Ideology and Meaning in Advertising. In Williamson's view, ads involve ideology in two ways. First, although ads seek to change behavior, they are constrained to do so in a fashion that is consistent with the ideology of a liberal democracy — that the individual has free choice and is not coerced. To this end, ads use the strategy of ideologies themselves: they make a particular point of view seem obvious and normal. One of the ways that ads allow readers/viewers to feel un-coerced and comfortable at the same time that they entice them into a "normal" point of view is by representing an absence that requires filling in — usually the link between the product and the life picture shown, between a cigarette and a cowboy on a horse. Ads work because as we fill in the absent link, as we make the connection ourselves between product and life (and as we feel we are free and entertained while doing this), we give that connection credibility. Advertising puns provide a "short cut between a product and a referent system" (86). "Puns perform the correlating function seen in all ads, but in a way that begs to be deciphered" (87). This deciphering is a conscious, thoughtful activity, during which we experience ourselves as freely discovering meanings — and during which we momentarily create for ourselves the point of view favorable to the product.

THE CULTURE OF THE BUMPER STICKER

The same creative mass marketing of the 1960s that prompted humorous advertisements also encouraged the sloganeering T-shirts and bumper stickers for presidential campaigns, antiwar protests, the drug culture and general bravado. The bumper stickers that read "I've gone to pot" and "Air traffic controllers tell pilots where to go" date from that era. Once the "pages" of the back end of an automobile and the front end of the human chest had been discovered, the genre of the pun, the parody and the rebus license plate could be refined. Two recent studies help fill out the picture here.

In "Badges, Buttons, T-Shirts and Bumperstickers: The Semiotics of Some Recursive Systems," Herbert Smith argued in 1988 that we are seeing a blossoming of folk parody in such humorous displays, and that this parodic tradition has its semiotic roots in the badge. The badge — whether as heraldic shield, Christian cross, civilian armband or police badge — replaces the person of the authority figure (the signified) with an icon (the signifier). The authority and humorlessness of badges beg for parody. "Is it any wonder then that the counterforce they produce should be humorous, semantically and semiotically sophisticated, puckish in revolt? Badges are rectangular, 'protective' and distinctive; buttons reverse all those qualities purposefully to reflect parodically their iconic origin and to comment upon it" (142-3). The button as iconic parody was the work of the avant-garde artist Marcel Duchamp in the 1920s, when he produced buttons with complex punning sentences written in inward spirals, apparently as paro-

dies of the square, legible, single-minded badge. The current crop of punning and sexually joking buttons (Duchamp apparently intended some buttons as joking forms of the nipple), T-shirts, billboards, logos and bumper stickers sustain this folk/artistic tradition of subverting authority. We see the process at work in the signs that run in a series — the variations on the original "I ♥ NY," for example, and on the progression from the official "This vehicle stops at all railway crossings" to the silly "I brake for coffee." Public puns, too, participate in this venerable tradition of turning the tokens of high seriousness on their heads.

In 1992 Charles Case, in his article "Bumper Stickers and Car Signs: Ideology and Identity," reported the results of a survey of any and all signs (including personalized license plate frames, window decals, Garfield animals) on 2,160 vehicles in several California parking lots — including malls, a high school and a hospital. Case's hypothesis was that while elite groups in an urban society have access to institutions and the mass media to express and enforce their ideologies, those without such access will use private automobiles disproportionately to express their viewpoints, and thus the viewpoints expressed on automobiles will tend to be those of the non-elite. And indeed he found that among relatively new cars (up to three years old), signs were more likely to appear on the less expensive models. But he also found that political and ideological statements (presidential preferences, feminist and environmental slogans) accounted for only a small proportion (five percent) of all the messages in the sample. By far the largest category of signs were those expressing identity — school decals, recreational preference, sexual and social status ("Electricians Do It Without Shorts"), family attachment, occupation ("Nurses Call the Shots"). It appears from the study that "ordinary" people use cars not so much to express political consciousness but to assert entertaining statements of their identity to the mass audience of the urban highway.

Both Smith's and Case's studies assume that the bumper sticker/T-shirt genre follows divisions of social class and political attitude. They posit a bifurcation between the elitist, authoritative voice and the parodying, individualist, non-establishment one. But this bifurcation is not wholly consistent with the data themselves. Bumper stickers, it seems, do not express political consciousness nearly as often as they express fairly traditional values. And the element of parody in buttons and bumper stickers is as much an imitation or spin-off of bureaucratic discourse as it is a "revolt" or "counterforce." Moreover, the pun itself, although neither study deals with it separately, cuts across this social divide. It is as likely to be found in the corporate advertisement as on the irreverent T-shirt. The bumper sticker and the T-shirt are, after all, products that are bought and sold. In advertising, one "buys" the pun in the figurative sense of giving it one's attention on the way to considering the product. On bumper stickers and the like, one buys the pun literally; the pun is the product. But the two cases are not so different in their relation to the marketplace.

And it is fundamentally the driving extension of the marketplace, more than the television commercial or the automobile *per se*, that has brought the pun to the foreground. On bumper stickers and T-shirts, I think we are seeing the influence of marketing language, with its colloquial, pseudo-informality, over other spheres of public language, an instance of what has been called the "the conversationalization of public discourse" (Fairclough). Specifically, the public pun seems to have followed from the rise of the entertainment and communications industries within the marketplace. For the pun of the bumper sticker and the ad alike meets the desire of the consumer to be entertained and to be entertained no less through modern communications systems — preferably electronic, but the pun, as I have suggested, may be the nearest thing in words to an electronic effect. The pun is to the traditional commercial slogan what the Disney stores in malls are to the traditional department store — a statement of style and entertainment as goals in themselves, both youthful and nostalgic at the same time, flexible and hip in presentation.

PUNS AND POSTMODERNISM

Another focus on the cultural significance of the public pun is through the lens of the notion of postmodernism, contentious though the term may be. The opening sentence of Charles Jencks' first chapter on *Postmodernism*, from 1987, certainly offers the pun as an element of postmodern style: "After more than twenty years the Post-Modern Movement has achieved a revolution in western culture without breaking anything more than a few eggheads." The difference within an earlier modernist culture between the world of the egghead artists and intellectuals and the world of commerce has been blurring. In place of the high modernist disdain for the popular and the crass, the pop art movement of the 1960s set in motion an intermingling of art with mass commerce that has not ceased. The new pop art itself "was an ingredient in a process which has been referred to as the 'aestheticization' of daily living" (Whiteley, 130). Fashion and stylishness — in clothing, furnishing and products — became paramount over good sense or even good taste. The stylish pun has been part of this trend

as well. Fashion in humor acquired commercial value. The humorous genre of the egghead and the wit found a new home at Walmart.

The public pun is thus part of the shifting relationship between culture and commerce that puts the consumer in a seemingly new position, but one that is difficult to interpret and assess. Do such puns really reflect a widening literacy? Do they reflect a consumer who is more acute about the language of commerce? Or do the puns sail past nearly all of the readers who see them, and are they essentially the self-indulgences of clever copy writers who have run out of other ways to try to reach the "jaded consumer"? Are they a cause for new optimism about popular literacy, or new dismay about the corporate character of our era?

The sunny view is that the pun along with other changes in public language might be viewed as a sign of greater consumer interaction with the discourse of commerce. I mentioned above the theory of the conversationalization of public discourse, the extension of the pseudo-informal, pseudo-private style of the market towards other types of traditionally formal public texts. This shift is often regarded by commentators as part of the shift from the traditional authority of the economic elites towards a greater authority for the masses of consumers. The capacity to determine the communicative style of commercial culture, and even to determine the nature of goods and services that will be successful in the marketplace, is no longer the domain of the producers as it was under earlier, manufacturing capitalism. In this view, the ubiquitous pun reflects a more literate consumer, one who is accustomed to, and even selects for a bumper sticker, language that has some richness to it, one who is less responsive to the condescending sales language of an earlier era.

But Norman Fairclough, in an essay about conversationalization and the supposed authority of the consumer, is skeptical about the significance of such shifts. The "strategic, instrumental use of simulated conversational language" seems

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to have "more to do with shifting goods than conceding authority" (265). For such language is imposed in a top-down manner and is hardly a genuine popular creation. And it is very selective about "whose conversational language is being drawn upon as a model" (264; emphasis in the original). Puns, although Fairclough does not discuss them directly, are a primary example of a very particular type of conversation — an educated and self-consciously clever type — that is promoted as casual and friendly. Fairclough concludes that the widely-used colloquial style of commerce is ambivalent in its relation to democratic tendencies on the one hand and capitalist control of the marketplace on the other. "For even manifestly synthetic and engineered conversationalization puts democratization, and new forms of social relation and social identity in public, on the social agenda.... And even the most authentically democratic conversationalization in intention may be suspect in a society where strategically and instrumentally motivated action is so pervasive" (265).

CONCLUSION

I agree with Fairclough's cautions about the complexity of an aspect of our culture that is, after all, too recent to see with much perspective. The commercial pun, whatever its sources and motivations, does put bits of intriguing language in the public eye, and yet one cannot rush to conclusions about a new sophistication in public taste when public language is so strategically designed by private interests. Similarly, while it is reassuring to see that our commercial culture has not lost its sense of humor, it is not clear what kind of tension underlies the laughter. The pun may be an appropriate verbal icon for the ambiguities of postmodernism, for as we are all negotiating the twin roles we play as buyers and sellers, as consumers and creators of images, the pun itself is the essence of two-sided language, of controlled ambiguity, of enthusiastic contradiction.

Any room will do.

You just wait.

You wait in limbo.

And then it happens.

Many utopia writers emphasized the book's importance in any ideal world. Some imagined ways to enhance the book aesthetically. Many imagined new written languages ranging from sign systems analogous to Chinese ideograms to syllabic writing, modified alphabetic systems and phonetic languages. Though the utopia writers asserted the value of their imaginary written languages for enhancing thought and communication, each system, if implemented, would alter the reading process profoundly. In some utopias, technological media supersede the codex. Those who incorporated the phonograph foresaw three possible futures for the phonographic book: in some utopias, the phonographic recording and the printed book coexist; in others, the phonographic book completely replaces the codex; in yet others, the phonograph is combined with telephonic or telegraphic communication.

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the book in AMERICAN UTOPIA LITERATURE, 1883-1917

Would the book still be around in the utopian future? In other words, would the codex, a bound volume made from stitched and folded gatherings of paper divided into leaves, survive? Or would it be replaced with some kind of phonographic way of storing or telegraphic way of transmitting information? The turn-of-the-century utopia writers pondered such questions, and many came up with creative answers. While several evinced much scorn for other aspects of print culture — notably, the newspaper — most had considerably higher opinions of the book. In many of the fictional utopias, the book not only survives, but it undergoes great improvement in terms of aesthetics and readability. In some, however, phonographic recordings and telegraphic communication do replace the codex.

The utopia writers enhanced the book's importance with aesthetic improvements. Some gave utopian books fine bindings. In James M. Galloway's *John Harvey: A Tale of the Twentieth Century*, for example, the narrator meets a woman who shows him her full library and brings him a copy of Goethe, "elegantly bound and exquisitely illustrated, a gift worthy of a king." As a special feature, a "little golden case set in the leather on the side of the book, and closed by a slide" contains the giver's name and the book's presentation note.¹ In *Unveiling a Parallel*, Alice Ilgenfritz Jones and Ella Merchant imagined utopian shelves filled with books bound in either white cloth or white leather, their spines lettered in gold.² The description shows that elegant bindings not only enhance the appearance of individual volumes, they also give a striking appearance to a whole shelf of books. Anna Adolph's utopian community at the North Pole takes the idea of aesthetically pleasing bindings to its extreme. Upon entering the library, her narrator finds himself inside a picture gallery. Somewhat puzzled, he asks his utopian guide where the books are. She presses on one picture frame. The painting moves out from the wall and becomes a book. The cover of the book was the painting.³

The utopian book need not be judged by its cover, though. Other writers imagined ways to enhance the book page to make it easy on the eyes. Some suggested a printed page which was aesthetically pleasing and which reduced eyestrain. In David

NOTES

¹ GALLOWAY, JAMES M. 1897. *JOHN HARVEY: A TALE OF THE TWENTIETH CENTURY*. (BY ANON MOORE, PSEUDONYM) CHICAGO: CHARLES H. KERR, 60.

² JONES, ALICE ILGENFRITZ AND ELLA MERCHANT. 1893. *UNVEILING A PARALLEL: A ROMANCE BY TWO WOMEN OF THE WEST*. BOSTON: ARENA, 25.

³ ADOLPH, ANNA. 1899. *ARQTIQ: A STUDY OF THE MARVELS AT THE NORTH POLE*. N.P.: FOR THE AUTHOR, 58.

Goodman Croly's *Glimpses of the Future*, Mr. Fanciful asserts that future books would be issued with multi-color pages. Sky-blue, leaf-green and the "neutral tints of water," he suggests, are the most amenable to the human eye. Unlike black ink on white paper which promotes myopia and "the use of spectacles," multi-colored pages sooth the reader's eyes. Mr. Fanciful suggests yellow ink on dark blue paper as the best combination to avoid eyestrain.⁴ Croly himself had experimented with multi-colored paper and ink in his short-lived periodical, *The Modern Thinker*. Each article was printed on different colored paper with different sized type and ink of various tints, color-coded to complement the paper. The only colors Croly did not use were black and white. In a later note, Croly explained that one of the purposes behind *The Modern Thinker* was "to call the attention of the public to the necessity for reform in our black-and-white printed literature," but, he sadly concluded, "The color theory on which the magazine was printed at the time attracted no attention."⁵

One utopia writer, however, may have been influenced by Croly's ideas for the colored page. Solomon Schindler's *Young West*, purportedly a sequel to Edward Bellamy's *Looking Backward*, described the life of Julian West's son. Copies of *Young West* echo Croly's idea for colored pages as they graphically show what books may be like in utopia. The margins of each page of the volume are pastel-colored. The "Publisher's Notice" tipped into the book explains:

We beg to call the attention of our patrons to the *Colored Margins* of the pages of this book. They are a novel feature in book-making, which, we have good cause to believe, will become universal in the near future.

Is it not a deplorable fact that while reading invigorates the mind, it weakens the eyes? Or, that in the same proportion as the art of reading has spread and has become universal, eye-glasses have come into common use?

Can nothing be devised to aid the eye or at least relieve part of the strain to which it is subject?

⁴ CROLY, DAVID GOODMAN. 1888. *GLIMPSSES OF THE FUTURE: SUGGESTIONS AS TO THE DRIFT OF THINGS*. NEW YORK: G.P. PUTNAM'S SONS, 172.

⁵ CROLY, *DICTIONARY OF AMERICAN BIOGRAPHY: GLIMPSSES OF THE FUTURE*, 173.

Reliable medical authority informs us that the reading eye wearies mostly from being compelled to gaze for a long time upon the sharp contrasts of white and black, also that the strain thus brought upon the eye would be materially lessened, if simultaneous with the printed page some color were brought within its focus.

Daily experience corroborates this observation. How refreshing when after reading for some hours we lift the eye to the blue heavenly clouds or allow it to roam over the green expanse of field and forest. In eye infirmaries, we are told, yellow is a favorite color, expected to soothe the nerves of the eye.

Upon this valuable advice we have printed this book at an increased expense with *Tinted Margins* in three colors.

The pastel blue, yellow and green margins are bibliographical niceties which disappear from the modern reprint of *Young West*. Reading the reprinted text without the colored margins or the tipped-in "Publisher's Notice," the modern reader has difficulty understanding why everyone in Schindler's utopia avoids eye strain and almost no one needs to wear eyeglasses.

Book illustration also approaches perfection in utopia. On Henry F. Allen's *Venus*, printing and illustration have attained a "very high standard of excellence."⁶ In *Fifty Years Hence*, Robert Grimshaw imagined the advances in printing which would take place in the utopian future. Printing would become "one of the most noble of the fine arts." Photographs printed in natural colors would become a common feature of the book trade. New zincographic processes would break down the boundaries between lithographic and relief printing. Furthermore, inexpensive illustrations would be produced with a level of quality formerly possible only with line engraving.⁷ Quite simply, the book would become a beautiful thing in Grimshaw's utopian future. Each of these improvements to the book enhances the aesthetic experience of reading. For the utopia writers who described the physical appearance of the binding and the printed page, the book is much more than

⁶ ALLEN, HENRY F. 1886. *THE KEY OF INDUSTRIAL CO-OPERATIVE GOVERNMENT*. (BY PRUNING KNIFE, PSEUDONYM). ST. LOUIS: BY THE AUTHOR, 57.

⁷ GRIMSHAW, ROBERT. 1892. *FIFTY YEARS HENCE: OR, WHAT MAY BE IN 1943: A PROPHECY SUPPOSED TO BE BASED ON SCIENTIFIC DEDUCTIONS BY AN IMPROVED GRAPHICAL METHOD*. NEW YORK: PRACTICAL PUBLISHING, 43.

simply a vehicle for providing information to its readers. Instead, these aesthetic improvements allow the process of reading to be enjoyed and savored all the more.

Future techniques of book illustration would become so sophisticated that the lithograph would replace type, according to Croly's Sir Oracle who predicts that future books and journals will require neither compositor nor typesetter. Instead, artists and writers will collaborate, and "their sketches and text will be photographs put on gelatine, or some similar menstruum, and multiplied *ad infinitum*."⁸ Every page of every book, Sir Oracle predicts, will be lithographed, not printed. While the books in Croly's imagined future would be absolutely gorgeous, his idea takes printing back to the time before Gutenberg. Croly's lithographed books are reminiscent of the xylographic books which predate moveable type. Sir Oracle's beautiful book will exact a high price, for it will come at the cost of the text. The lithographed page, like the xylographic book, will change the relationship between text and illustration.⁹ With moveable type, a book's text is prepared for production separately from its illustrations. The illustrations are nearly always subservient to the text. The illustration only exists to add credence to the text. Where both are produced simultaneously — think about comic books — the text no longer takes precedence and may even be subservient to the illustrations.

While the utopia writers stressed how great advances in book illustration would enhance the book aesthetically, Emanuel found such improvements threatening. In *Messiah of the Cylinder*, Emanuel suggested further dangers associated with advances in book production. Shortly after arriving in the dystopia, Emanuel's narrator comes before a magistrate who makes use of the *Escaped Defectives Book*, a small publication containing "numerous miniature photographs in color." The narrator explains how the magistrate studied the book, "looking up at me from time to time. Occasionally, at his nod, one of the policemen would seize my face and push it into profile. At last the magistrate thrust the book away petulantly."¹⁰ For the utopia writers, better book illustration enhanced the aesthetic experience of reading, but for Emanuel better book

illustration has the potential to minimize personal privacy. Technological advances in reproducing photographs made it possible for everyone to be catalogued, recognized and tracked.

Croly's suggestion to eliminate moveable type was rare; much more often the utopia writers imagined new typefaces, an idea which paralleled their imaginary language systems. Written languages in the American utopia literature range from sign systems analogous to Chinese ideograms to syllabic writing, modified alphabetic systems and phonetic languages so perfect that they can represent all manner of human utterance. Though each utopia writer asserted that his imaginary language system could significantly enhance both thought and communication, each system, if implemented, would alter the reading process profoundly.

In *The Diothas*, John Macnie imagined a utopian language which could be printed in two completely different ways, in alphabetic or syllabic characters. The alphabet consists of thirty-six characters, twelve of which represent vowel sounds. The syllabary contains 250 characters which could be combined to form the five hundred or so syllables in the language. Among Macnie's utopians, the persistent effort to make the language more euphonious led them to suppress all "consonants not required for the separation of the vowel sounds." A large number of vowels combined with as few consonants as possible contribute to the language's euphonious quality and help keep the number of syllabic characters within reasonable limits. Since Macnie's narrator is a newcomer to utopia, he must learn the language. He has no trouble mastering the alphabet, but learning to distinguish the 250 syllabic characters takes him considerably more time. Without mastering the entire syllabary, he cannot read a syllabic text. Describing his utopian reading experience, Macnie's narrator finds the process of reading the syllabic text tantalizing, yet frustrating, for one unknown syllable renders an entire sentence incomprehensible.¹¹

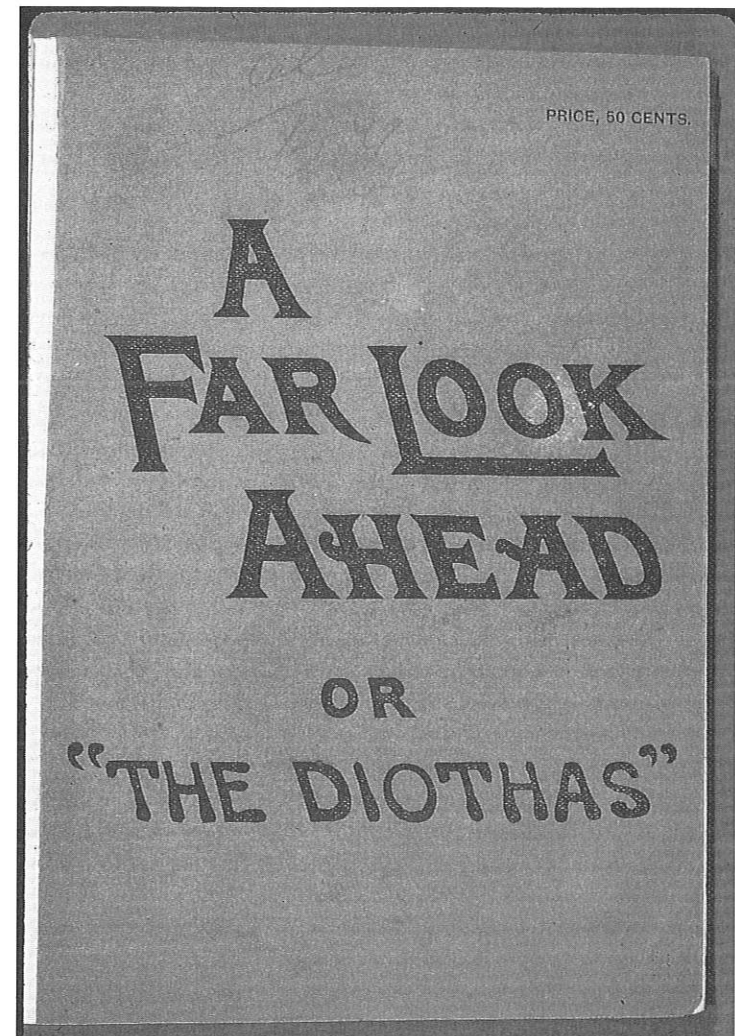
At first, the reasons for two sets of printed characters to represent the same language do not seem entirely clear. The syllabic characters do allow the beautiful sound of the language to be represented more accurately in print. But if representing beautiful sound is important, then the alphabetic language seems inadequate and superfluous. The syllabic characters have another advantage in that they can represent a text in a smaller space than the alphabetic language. One syllabic character, after all, could represent what might take multiple alphabetic characters. Macnie's narrator mentions that books printed in syllabic characters are much more compact than alphabetic books, but if compact texts are important, the alphabetic language again seems inadequate and superfluous. The true reason for the syllabary becomes apparent as the narrator explains how the syllabic and the alphabetic characters are learned:

⁸ CROLY, *GLIMPSES OF THE FUTURE*, 126.

⁹ FOR A GOOD OVERVIEW OF THE XYLOGRAPHIC BOOK, SEE FEBVRE LUCIEN, AND HENRI-JEAN MARTIN. 1976. *THE COMING OF THE BOOK: THE IMPACT OF PRINTING, 1450-1800*. DAVID GERARD, TRANSLATOR, GEOFFREY NOWELL-SMITH AND DAVID WOOTTON, EDITORS. LONDON: NLB, 45-48.

¹⁰ EMANUEL, VICTOR ROUSSEAU. 1917. *THE MESSIAH OF THE CYLINDER*. (VICTOR ROUSSEAU, PSEUDONYM) WESTPORT, CONNECTICUT: HYPERION, 1974, REPRINT, 54.

¹¹ MACNIE, JOHN. 1883. *THE DIOTHAS: OR, A FAR LOOK AHEAD*. (BY ISMAR THUISEN, PSEUDONYM). NEW YORK: ARNO PRESS AND THE NEW YORK TIMES, 1971 REPRINT, 186-188.



COVER OF JOHN MACNIE'S 1883 *A Far Look Ahead or the Diothas*.
COURTESY OF THE NEWBERRY LIBRARY, CHICAGO.

The youth of both sexes were taught these [syllabic] characters by degrees; a complete knowledge of them being regarded as neither necessary, nor, indeed, desirable, till the attainment of majority. There was no deprivation in this, for almost the whole store of intellectual wealth accumulated during so many ages was open to them in the common [alphabetic] character. It was strictly prohibited to print in the common character any reading of a kind unsuitable for unripe minds.¹²

Two sets of written characters allow thought to be represented on the printed page in two different ways. A person's level of education thus determines whether he has access to certain texts, specifically books "unsuitable for unripe minds." Macnie does not elaborate on what he considers unsuitable reading, but another utopia writer may help shed light on the issue. In Paul Devinne's *Day of Prosperity*, the narrator travels to the future where he discovers what fine and decent books the utopian children read, and he comments, "In my days every child, at any street corner, might, for a few pennies, buy love stories or tales of robbery and murder."¹³ Macnie, too, must mean such cheap, sensational pamphlet novels. He could have simply banned unsuitable material from his imaginary world, but, like most utopia writers, Macnie recognized that few readers would accept the notion of censorship in any ideal world. If the use of two different written languages to represent one spoken language is not censorship, then it is the next closest thing, for the government determines the suitability or unsuitability of any given text and decides whether it can be printed in the alphabetic character or whether it must be printed in syllabic characters. The different typefaces thus control the reader's access to different texts.

Other utopia writers took different approaches to written language. On Allen's Venus, books are printed in a typeface which he called "a system of sign words ingeniously adapted to rapid expression of thought."¹⁴ Allen provided little additional description detailing his conceptual language, but from his brief description, the language clearly differs from Macnie's syllabary. While the syllabary represents individual units of sound, Allen's sign system is intended to represent ideas. More than any other known language, it seems closer to Chinese ideograms, a kind of writing which found favor with other utopia writers. F. W. Harris's interplanetary traveller found that the "written language of Saturn resembles the Chinese character language, only it is much more smooth and more complete."¹⁵ Ideograms have the potential to make printed text even more compact than syllabic characters. Allen's imaginary typeface allows one page of print to represent the same information which would span several pages in English. One Venusian periodical, Allen's utopian guide explains, holds "fully ten times as much reading matter" as an earthly journal of the same size.¹⁶ The advantages from compressing much information into a small space and therefore being able to

express much thought quickly may seem ideal, but, like Macnie's syllabary, Allen's sign system is not without disadvantages. To make a text so compact, each of Allen's ideograms must carry considerably more meaning than either an alphabetic or a syllabic character and thus characters can be extraordinarily complex. Such complexity makes an ideogrammatic language much more difficult to learn than an alphabetic language. Indeed, ideograms may speed comprehension — but only for those who can master the language. If the written language on Harris's Saturn resembles Chinese ideograms, the Saturnians must memorize thousands of signs before they can read a simple text. Ideograms may have the potential to accelerate thought, but a likelier result is that it would increase a society's illiterate or marginally literate population and make literacy an elite skill.

Contrary to either syllabic or ideogrammatic languages, a phonetic language, other utopia writers asserted, could best represent speech and accelerate thought. In *A Dream of a Modest Prophet*, for instance, M. D. Leggett's planetary traveler discovers that on Mars, the "written and printed language is entirely phonetic." After learning the language's elementary sounds and the characters representing those sounds, he has no trouble reading any Martian book he chooses.¹⁷ The phonetic text makes it easier for Leggett's Martians to concentrate on the printed page, and they read almost as quickly as they can think.¹⁸ Since a phonetic language can use an alphabet to represent speech, it can keep the number of necessary characters to a minimum and thus avoid the disadvantages associated with those written languages which require numerous characters. A phonetic language may accelerate thought — yet not without a price. When a written language represents the sound of a spoken language, the subtle nuances which normally occur during pronunciation completely disappear. Thought may accelerate but only at the cost of simplifying and homogenizing expression. Leggett's phonetic language, therefore, may recoil upon itself, for simplifying expression may, in turn, simplify thought. Accelerating thought seems of little value unless it simultaneously heightens its complexity.

¹² MACNIE. *THE DIOTHAS*: 187-188.

¹³ DEVINNE, PAUL. 1902. *THE DAY OF PROSPERITY: A VISION OF THE CENTURY TO COME*. NEW YORK: ARNO PRESS AND THE NEW YORK TIMES, 1971, REPRINT, 99.

¹⁴ ALLEN, KEY, 57.

¹⁵ HARRIS, F.W. 1905. *LIFE IN A THOUSAND WORLDS*. CLEONA, PENNSYLVANIA: G. HOZAPPEL, 95.

¹⁶ ALLEN, KEY, 57.

¹⁷ LEGGETT, M.D. 1890. *A DREAM OF A MODEST PROPHET*, PHILADELPHIA: J.B. LIPPINCOTT, 18.

¹⁸ LEGGETT, *A DREAM OF A MODEST PROPHET*, 49.

By setting their utopias on other planets, Allen, Harris and Leggett gave themselves the freedom to imagine languages entirely different from earth-bound languages. Those utopias set in earth's future were more constrained, however, for their languages had to evolve from or somehow accommodate current languages. Many of the turn-of-the-century utopias reveal the prevalent hopes for a universal language to solve international communication problems. The most straightforward solution was simply to make an existing language universal. Not surprisingly, some of the American utopia writers asserted that the English language would become the universal language. James Howard Bridge made English universal in his utopia.¹⁹ So did Ignatius Donnelly. As Donnelly's narrator in *Caesar's Column*, settles himself at the hotel dining room table of the future and begins reading the news, he learns that a Zulu professor recently had written "a dissertation upon the genius of Chaucer ... which had created considerable interest among the learned societies of the Transvaal" and also that China's "Republican Congress ... had decreed that English, the universal language of the rest of the globe, should be hereafter used in the courts of justice and taught in all the schools."²⁰ Bridge and Donnelly anticipated the notions of Anglo-Saxon superiority which would become pervasive throughout the United States and England during the last decade of the nineteenth century. Other utopia writers, however, were less parochial with their ideas for a universal language.

Volapük, one particular attempt at a universal language, achieved extraordinary popularity during the 1880s and early 1890s. Though David Goodman Croly expressed some skepticism about the usefulness of Volapük, other utopia writers embraced it and eagerly anticipated its adoption throughout the world.²¹ John Bachelder in *A.D. 2050* and Solomon Schindler in *Young West* both foresaw adolescents learning Volapük as part of their utopian education.²² As he narrates the story, *Young West* explains that he was first taught English, his native language, and afterwards learned Volapük. Schindler carefully emphasized the importance of mastering one's native language as well as an international language, something which proponents of Volapük were quick to point out. One contem-

19 BRIDGE, JAMES HOWARD. *A FORTNIGHT IN HEAVEN: AN UNCONVENTIONAL ROMANCE*. (BY HAROLD BRYDGES, PSEUDONYM) NEW YORK: HENRY HOLT, 151-152.

20 DONNELLY, IGNATIUS. 1890. *CAESAR'S COLUMN: A STORY OF THE FUTURE*. CHICAGO: SYNDICATE PUBLISHING COMPANY, MASONIC TEMPLE, 18, 16-17.

21 CROLY, GLIMPSES OF THE FUTURE, 85-86.

22 BACHELDER, JOHN. 1890. *A.D. 2050: ELECTRICAL DEVELOPMENT AT ATLANTIS*. (BY A "FORMER RESIDENT OF 'THE HUB,'" PSEUDONYM) SAN FRANCISCO: BANCROFT, 34; SCHINDLER, SOLOMON. 1894. *YOUNG WEST: A SEQUEL TO EDWARD BELLAMY'S CELEBRATED NOVEL, LOOKING BACKWARD*. BOSTON: ARENA, 77-78.

23 QUOTED IN ALFRED A. POST. 1892 "VOLAPÜK." *ARENA* 5, 558.

24 POST, "VOLAPÜK," 566.

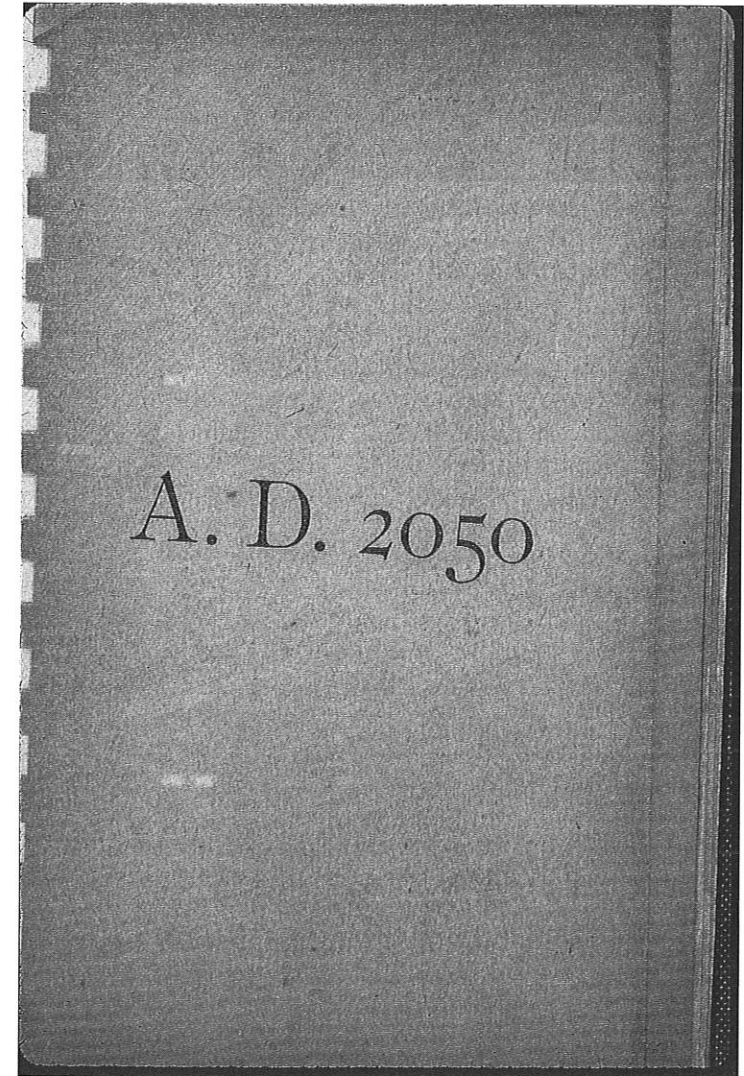
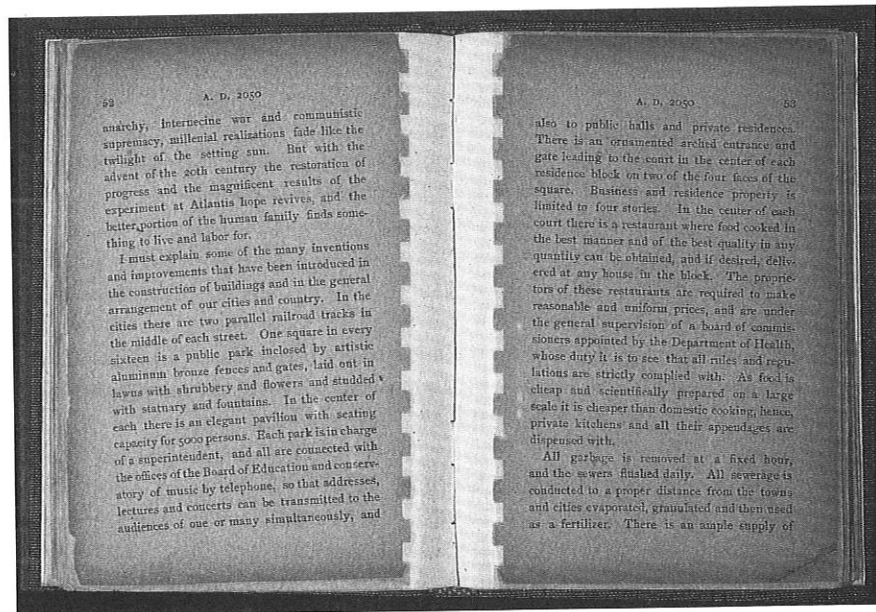
25 SCHINDLER, *YOUNG WEST*, 77-78.

26 ALEXANDER, JAMES B. 1909. *THE LUNARIAN PROFESSOR AND HIS REMARKABLE REVELATIONS CONCERNING THE EARTH, THE MOON AND MARS*. MINNEAPOLIS, 207-218.

27 POST, "VOLAPÜK," 561; NEW YORK PUBLIC LIBRARY, *DICTIONARY CATALOG OF THE RESEARCH LIBRARIES OF THE NEW YORK PUBLIC LIBRARY, 1911-1971*. NEW YORK: G.K. HALL FOR THE NEW YORK PUBLIC LIBRARY, 761: 78-85.

porary enthusiast commented, "Those who advocate Volapük have no expectation that it will ever supersede the languages of the earth, or even a single one of them. Its aim is not to supersede but to supplement; to provide a means by which the races of mankind may become intelligible to each other while retaining their mother tongues."²³ Volapük, according to another, could "bind all the nations together in common brotherhood. ... bringing into amicable association millions of people of every race and clime."²⁴ Since advances in the "rapidity of locomotion" would make people the world over "almost next door neighbors," Young West explains, "It would have been a waste of time, and an unbearable tax on memory, if a person should have been obliged to study half a dozen or more languages."²⁵ Still, Schindler stressed the importance for utopians to learn their native tongue. Other utopia writers, however, foresaw that a universal language could and should supplant native languages. When a universal language is first introduced to utopian society in James B. Alexander's *Lunarian Professor*, the people learn it along with their native language, but after fifty years, the native languages are abandoned, and students are taught only the universal language.²⁶

Based on English yet containing numerous words similar to German, Volapük really resembles no natural language. After its invention by the German Catholic priest, Johann Martin Schleyer, in 1879, Volapük achieved a widespread (though fleeting) acceptance. During the following decade and a half, hundreds of classes were taught and Volapük clubs were formed throughout Europe, America and Australia; Volapük grammar handbooks were published from Nuremberg to San Antonio; several successful international congresses were held; and many works were translated into Volapük — Dante's *Divine Comedy*, Anna Sewell's *Black Beauty*, the Talmud and the U.S. Constitution, to name a few.²⁷ *Black Beauty* may have been translated into Volapük to encourage adolescents to learn the language, but this particular work, though a popular one, still seems unusual, for the novel is narrated as an autobiographical account from the horse's point of view. The translated version, in other words, implies that even the horse, of course, knows Volapük. Talk about a universal language! Though Schindler made Volapük an important part of the education



TITLE PAGE AND SPREAD FROM JOHN BACHELDER'S *A. D. 2050: Electrical Development at Atlantis, 1890*. COURTESY OF THE NEWBERRY LIBRARY, CHICAGO.

of the future, by the time *Young West* appeared in 1894, its popularity already had peaked.²⁸

Even while Volapük's popularity raged, however, some observers were not entirely convinced of its value. The American Philosophical Society, for example, found Volapük inadequate as a universal language.²⁹ Other utopia writers imagined different universal languages. In *Fifty Years Hence*, Grimshaw foresaw a phonetic universal language which combined "the soft liquid beauty of the Italian, the dignity of the Spanish, and the majesty of the Greek; the adaptability to new ideas of the German, the delicate shadings of the French and the business-like exactness of the English."³⁰ Grimshaw's imaginary language, therefore, was more in line with the ideas of the American Philosophical Society which suggested that any universal language should be a phonetic conglomeration of English, French, German, Spanish, Italian and Russian. Recognizing that speech had a greater capacity for expression than written language, Grimshaw added other written characters to his imaginary language to represent such sounds as whistling, clucking and kissing, barking, howling, groaning and laughter. Grimshaw's narrator explains that every "sound which can be imitated by the human voice may be so recorded upon paper that it can be read and reproduced by any one (not dumb) who can read and write."³¹ Grimshaw thus imagined a written language which can accommodate all forms of human vocal expression. Despite the added sounds, Grimshaw's imaginary language still does not remedy the problems inherent to phonetic languages.

In *The Day of Prosperity*, Paul Devinne made English the universal spoken language, yet he imagined a different sign system for printed language which he called "English stenographic script." Devinne's printed script allows the citizens of utopia to read and write as rapidly as they can talk.³² F. W. Harris similarly imagined a stenographic written language. On Stazza, another of Harris's multiple worlds, the alphabet consists of a series of strokes, curves and angles, somewhat resembling shorthand. Harris's planetary traveller explains, "This language is identical in print or script, and is superior to our method of expressing thought by handwriting."³³ Both Devinne's and Harris's

28 FOR A GOOD BRIEF OVERVIEW OF VOLAPÜK, SEE ECO, UMBERTO. 1995. *THE SEARCH FOR THE PERFECT LANGUAGE*. JAMES FENTRESS, TRANSLATOR. CAMBRIDGE, MASSACHUSETTS: BLACKWELL, 319-321.

29 BRINTON, D.G., HENRY PHILLIPS, JR., AND MONROE B. SNYDER. 1888. "THE SCIENTIFIC VALUE OF VOLAPÜK." *PROCEEDINGS OF THE AMERICAN PHILOSOPHICAL SOCIETY*, 25, 3-13.

30 GRIMSHAW, *FIFTY YEARS HENCE*, 41.

31 GRIMSHAW, *FIFTY YEARS HENCE*, 41-42.

32 DEVINNE, *DAY OF PROSPERITY*, 166, 157.

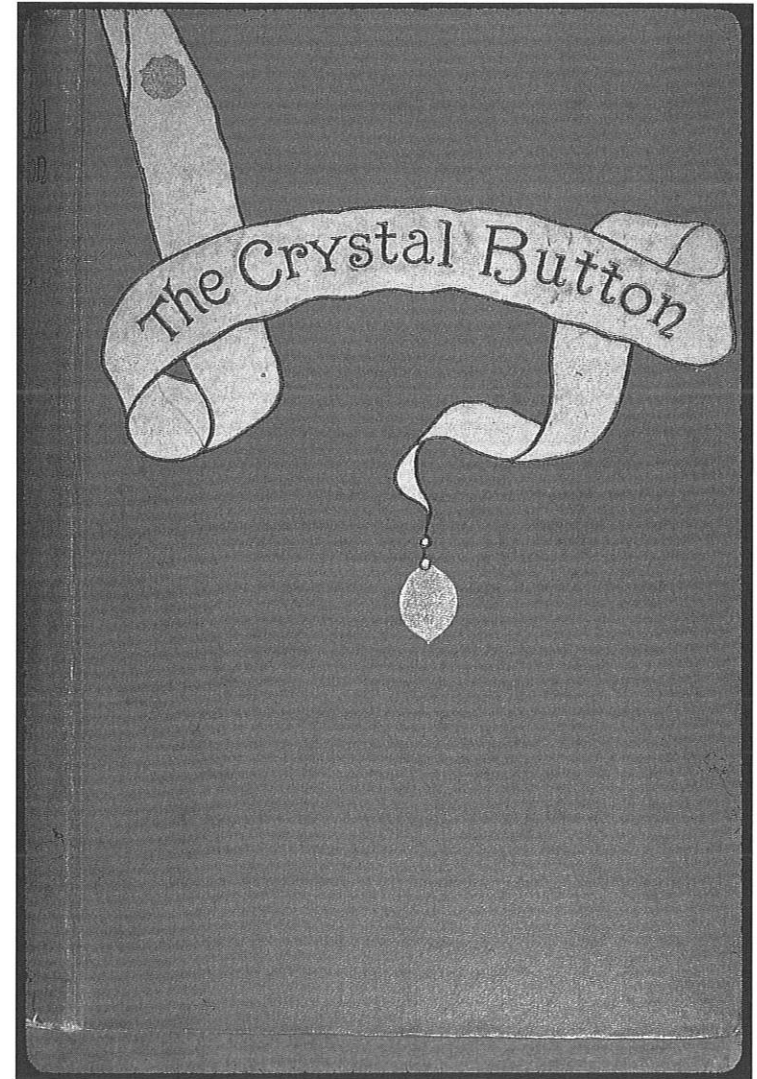
33 HARRIS, *LIFE IN A THOUSAND WORLDS*, 119.

34 FENOLLOSA, ERNEST. 1935. *THE CHINESE WRITTEN CHARACTER AS A MEDIUM FOR POETRY*. EZRA POUND, EDITOR. WASHINGTON: SQUARE DOLLAR.

Stazzian orthography, however, have a drawback, for they obviate the differences between manuscript and print which often represent different forms of discourse. Manuscript is used for more intimate forms — personal letters, diaries — while print indicates written material designed for a wider readership. Regularizing the appearance of script and print breaks down the differences between the forms of discourse which they communicate. Common to other utopian languages schemes, Harris's stenographic language sought to accelerate the thought process. Simplifying written communication reduces the amount of information the brain needs to process and thus, the argument goes, accelerates the thought process. Like the phonetic languages, regularizing script and print sacrifices expression in order to accelerate thought.

While the turn-of-the-century utopia writers foresaw a variety of written and printed languages to accelerate thought, they ignored the other possible effects their imaginary languages might have, either negative or positive. None of the utopia writers imagined written languages with the capacity to enhance verbal complexity and heighten poetic expression. The Chinese ideogrammatic language could enhance poetic expression, as Ernest Fenollosa persuasively argued and as Ezra Pound put into practice.³⁴ Though Allen's written language seems similar to Chinese ideograms, he never discussed the poetic possibilities of the imaginary language. A syllabary, too, has great potential for poetry. In the Philippines, for instance, the Tagalog syllabary contains many characters with multiple meanings. The ambiguity inherent to written Tagalog lends a complexity to its poetry which would be impossible to achieve with an alphabetic language.³⁵ Yet Macnie never mentioned the poetic possibilities of his utopian syllabary. Macnie's utopian language is unique among the other imaginary languages, though, for it does make expression more complex. It does so, however, as a way to control thought, not to free it.

Despite the improvement many utopia writers imagined for the bound volume, others foresaw alternatives to the codex which would change significantly the way a written text is perceived and understood. The most frequent technological gadget the utopia writers included was the phonograph. Thomas Edison's invention of the phonograph predates most of the American utopia literature, and Edison himself anticipated many of its utopian uses. In an 1878 article in the *North American Review*, Edison suggested several imaginative uses for the phonograph. For one, books could be read aloud by professional elocutionists and recorded. Such phonographic books could then be played for the inhabitants of "the asylums of the blind, hospitals, the sick-chamber, or even with great profit and amusement by the lady or gentleman whose eyes and hands may be otherwise employed."³⁶ Here, Edison's list of possible users of the phonographic book quickly moves from those who physically cannot read to pretty much everyone. The phonograph greatly heightened efficiency by allowing people to perform two tasks simultaneously. The act of reading required a person to use their eyes to read



COVER OF CHAUNCEY THOMAS' 1891 *The Crystal Button*.
COURTESY OF THE NEWBERRY LIBRARY, CHICAGO.

as well as their hands to hold the book and turn its pages. The phonograph, however, freed both eye and hand, allowing people to devote their visual and motor skills to other tasks while still allowing them access to literature. Edison's possible uses for the phonograph essentially gives literature a second class status. He implied that the written text was not something which required active concentration. Instead, it was something which could be received passively through the act of listening. Edison foresaw the use of the phonograph to provide what we now call "background noise." He did not say that people should abandon reading, but by making literature conveniently available in recorded form, Edison created the opportunity for people to abandon reading in favor of listening.

Edison further suggested that the phonograph made it possible to record the spoken words of great statesmen for posterity: "It will henceforth be possible to preserve for future generations the voices as well as the words of our Washingtons, our Lincolns, our Gladstones, etc., and to have them give us their 'greatest effort' in every town and hamlet in the country, upon our holidays."³⁷ Edison thus imagined a world in which the phonograph became an essential part of the national tradition. In nineteenth-century America, it was commonplace for important political speeches and historic documents to be read on holidays. Readings of the Declaration of Independence on the Fourth of July, for instance, took place across the United States. Edison implied that it would be preferable to hear a recording of a great statesman reading a work he had written rather than to have someone else read the work aloud. Since everyone across the country could listen to an identical recording, phonographs could thus help homogenize a patriotic tradition. Unlike the written text, the recording could reproduce the subtle nuances which only occur when a text is read aloud.

Edison's bookish contemporaries clearly found the phonograph's potential threatening, and the *North American Review* article unsettled the publishing industry. After its appearance, the editor of *Publishers' Weekly* queried, "Is the day coming when all our bookstores and all our libraries will be filled with nothing but sheets of tinfoil, grooved with simple lines?"³⁸ Well, yes, some utopia writers essentially answered. Those who incorporated the phonograph as part of their imaginary worlds foresaw three possible futures for the phonographic book. In some utopias, both the phonographic recording and printed book coexist. In others, the phonographic book completely replaces the codex. In yet others, the phonographic book is combined with telephonic or telegraphic communication.

In *The Crystal Button*, Chauncey Thomas's time-travelling narrator, Paul Prognosis, finds both printed books and phonographic recordings in his host's library. Paul Prognosis discovers that the books of the future are printed in some kind of stenographic language which he cannot read, so he resorts to the tinfoil rolls which

he can listen to and understand. Thomas's imaginary tinfoil rolls accommodate all kinds of information — history, law, physics and the sciences. There are apparently no limits to what kinds of information which can be recorded. As Paul Prognosis explains, the rolls hold "sets of encyclopedias, in which the sum total of knowledge in certain important branches of study is presented in brief. Here we find 'Flora and Fauna, Past and Present;' and here, a huge set of volumes with the single title 'Modes,' — not fashions, please understand, but the best possible modes and processes applicable to all mechanical arts, as epitomized from the annual reports of the Central Bureau of Demonstration."³⁹ All in all, the rolls contain "the expressed substance of all possible invention, filtered, refined and concentrated, and finally bottled in this compact form for ready reference."⁴⁰ The tinfoil rolls, therefore, are not limited in subject matter, but they are limited in terms of the amount of information they contain. The limitations, however, appear to be practical, not physical. Thomas's point is that the amount of historically-amassed information would become so huge that people would need some way to process it in the future. To be manageable, this vast amount of information had to be condensed and distilled. Thomas's tinfoil rolls, therefore, are a kind of listener's digest. Presumably, the full texts embodying the entirety of human knowledge were available in the printed stenographic books for indepth research, but the tinfoil rolls contained as much information as most people would ever need or want to know.

Some of the utopia writers foresaw worlds in which the printed books were completely eliminated in favor of recorded ones. The utopian library which Bridge imagined in *A Fortnight in Heaven*, for example, contains only phonographic recordings. Works predating the phonograph had been recorded by professional elocutionists (Bridge deliberately borrows Edison's diction) while more recent books were recorded by authors themselves.⁴¹ Herbert Spencer, to use Bridge's own example, could make phonographic recordings of his own works for posterity.⁴² In utopia, Bridge suggested that not only books, but also music, drama and lectures could be recorded, and all could be enjoyed in combination as an evening's entertainment at home.⁴³ While listening to a recording of Herbert Spencer

35 RAFAEL, VICENTE L. 1988. *CONTRACTING COLONIALISM: TRANSLATION AND CHRISTIAN CONVERSION IN TAGALOG SOCIETY UNDER EARLY SPANISH RULE*. ITHACA: CORNELL UNIVERSITY PRESS, CH. 1.

36 EDISON, THOMAS A. 1878. "THE PHONOGRAPH AND ITS FUTURE." *NORTH AMERICAN REVIEW*, 126, 533.

37 EDISON, "THE PHONOGRAPH AND ITS FUTURE," 534.

38 "THE PHONOGRAPH AS A REVOLUTIONIST," *PUBLISHERS' WEEKLY*, NO. 329 (4 MAY 1878): 441.

39 THOMAS, CHAUNCEY. 1891. *THE CRYSTAL BUTTON: OR, ADVENTURES OF PAUL PROGNOSIS IN THE FORTY-NINTH CENTURY*. BOSTON: GREGG PRESS, REPRINT 1975, 134-135.

40 THOMAS, *THE CRYSTAL BUTTON*, 134-135.

41 BRIDGE, *A FORTNIGHT IN HEAVEN*, 55.

42 BRIDGE, *A FORTNIGHT IN HEAVEN*, 80-81.

43 BRIDGE, *A FORTNIGHT IN HEAVEN*, 56.

reading the text of, say, *Study of Sociology*, hardly seems like good family entertainment, Bridge really was not arguing that families should gather around the phonograph to listen to the likes of Herbert Spencer. Rather, he was suggesting that all forms of discourse — from novel to socio-political treatise — could be transferred from the printed page to the phonographic record.

Bridge's phonographic records eliminate the traditional relationship between the reader and the book — except for one particular aspect. Bridge's imaginary phonographic works, like books, are personal possessions. People acquired them, brought them home, and listened to them whenever they wished on their home phonographs. Other utopia writers, however, found private ownership of such items superfluous, especially considering the advances in telephonic and telegraphic communication which would occur in the utopian future. In *A Round Trip to the Year 2000*, for instance, William Wallace Cook explained that when utopians wish to listen to novels, all they need to do is contact the "Novel Bureau." The Bureau asks what kind of novel they want, makes a selection for them, and broadcasts a recording of the selected text.⁴⁴ In the future Cook imagined, the book loses all physicality for everyone except those employed at the Novel Bureau. Written works only exist as sound transmitted across the airwaves. According to Cook's description, listeners do not even have the opportunity to choose a specific book title. Rather, they simply request the kind of novel they wish to hear, and the Novel Bureau makes a specific choice for them. Telephoning the novel bureau may be convenient, but the act gives the government opportunity to control the public's thought.

Though several utopias integrate the phonograph, it is remarkable that more did not. Rather, many more utopia writers made the codex an important part of their imaginary worlds. Their description of the utopian book — though multi-colored, printed with innovative typefaces, and lavishly illustrated its printed page may be — shows that they recognized the book's importance to any ideal society. After all, how many turn-of-the-century utopia writers published their works as phonograph recordings?

⁴⁴ COOK, WILLIAM WALLACE. 1903. *A ROUND TRIP TO THE YEAR 2000: OR A FLIGHT THROUGH TIME*. (REPRINTED. WESTPORT, CONNECTICUT: HYPERION, 1974), 174

Formal formalist lines
whose function is to sort of clarify.
Formulations. Expressionism. Parts
of
an incomplete whole.

Exemplary disagreement is the goal,
informal discussion among the eyeballs breaking
new ground.

A higher function, of course,
than life in the streets.

ATTEMPTING TO EXPLAIN

Historically Gaelic, the vernacular language of a significant proportion of the population of Ireland, used a variation of the roman alphabet which consisted of just eighteen basic letters — the vowels and some consonants carried diacritical marks of accent and aspiration which extended the range of sounds they represented. With the introduction of cast metal moveable type the particular requirements of printing Irish language texts were met either through the production of specially prepared fonts of irish character types based on distinctive Irish manuscript models or alternatively through the use of existing or adjusted roman fonts. This account seeks to examine some of the significant attempts made at accommodating roman fonts to the perceived requirements of the Irish language in the context of the various social and political considerations which were inevitably imposed on this process.

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Visible Language 31:1

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SIMPLY A *dot*

There is an element relating to the orthography and phonetic composition of the Irish language which, although most basic and simple in form, has nonetheless, been central to a debate that ultimately determined the visual manifestation of that language, namely — the dot.

As an indicator of aspiration of affected consonants, in this Irish context, the dot had a rather diverse origin made all the more complex as it evolved from its use in early manuscripts through the development of printing to more recent times. Placed over a letter, it was initially used by the early scribes as a method of indicating the deletion of an error, thus avoiding the tedious and awkward need to erase a mistake by scraping. In time this device was used to indicate a softening or adjustment in sound of certain consonants. Alternatively the early scribes indicated aspiration of other consonants by placing an h above the affected letter. Later, as printing from case metal movable type developed, the fonts used by the Irish Franciscans in Louvain in the early part of the seventeenth century contained ligatures of consonants which incorporated the suprascript h, but more usually such printing types prepared in the irish style simply used a suprascript dot to indicate this form of aspiration. (figure 1). This method could also be employed through the preparation of specially adjusted fonts of roman type, while those wishing to use ordinary available roman type for printing Irish placed the letter h after the affected consonant. The use of the h in this manner as distinct from the dot came to represent a wider more significant debate which, over the years, struggled with the question of the appropriate form for printing Irish language text — the roman versus the irish characters.

The first recorded book printed in Gaelic used roman type (figure 2).¹ It was printed in Edinburgh by Robert Lekprevik in 1567 just four years before the *Aibidil Gaoidheilge agus Caiticiosma* was printed in Dublin using a font of type which made use of specially prepared irish characters. (figure 3). Unlike in Ireland, the use of roman type was to continue as the popular and predominant form for printing Gaelic in Scotland.

Theobald Stapleton was one of the earliest outspoken supporters of the use of roman type for Irish. His *Catechismus, seu Doctrina*

NOTES

¹ KNOX, JOHN. 1567.
FOIRM NA NURRNUIDHEADH.
TRANSLATED BY JOHN
CARSWELL. EDINBURGH.

Christiana, was published at Brussels in 1639. In the preface he explains that he chose to have it printed in roman type (it is printed in parallel columns, Latin and Irish, the Irish in italic) so that it would be more easily read and understood. Indeed, this would seem to have been so important to him that he mentions on the title page that the roman character was being used to facilitate the reading of the Irish. He was particularly critical of many of the native writers and poets for their unnecessarily complex and obscure use of the language, who he claimed: "have put it under great darkness and difficulty of words, writing it in contractions and mysterious words which are obscure and difficult to understand."

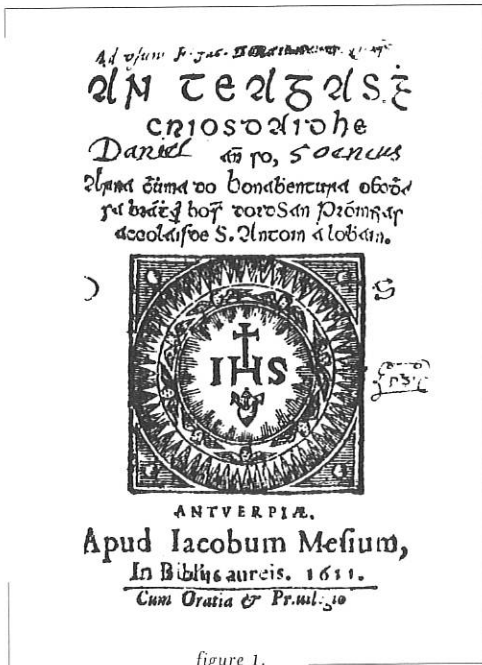


figure 1.

TITLE PAGE OF *An Teagas Crisoidhe*, THE FIRST BOOK TO USE THE LOUVAIN IRISH TYPE IN 1611.

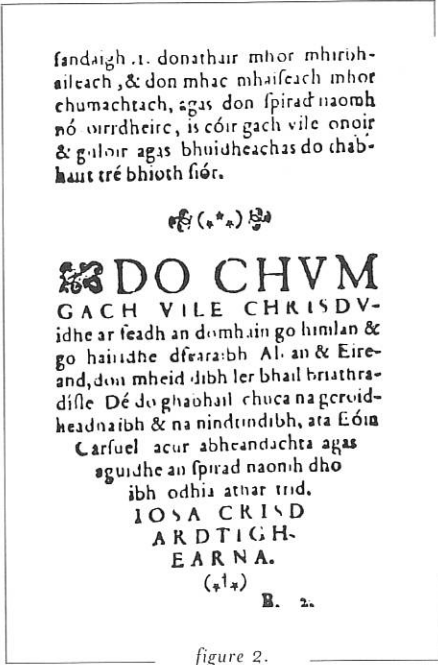


figure 2.

PAGE FROM *Foirm na Nurruidheadh (Forms of Prayer)*, THE FIRST BOOK PRINTED IN GAELIC BY ROBERT LEKPREVIK IN EDINBURGH IN 1567.

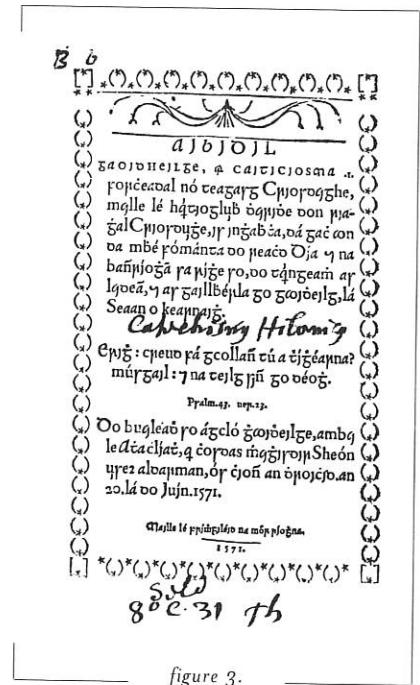


figure 3.

TITLE PAGE OF *Aibidil Gaoidheige agus Caiticosma*, THE FIRST BOOK TO USE THE QUEEN ELIZABETH IRISH TYPE IN 1571.

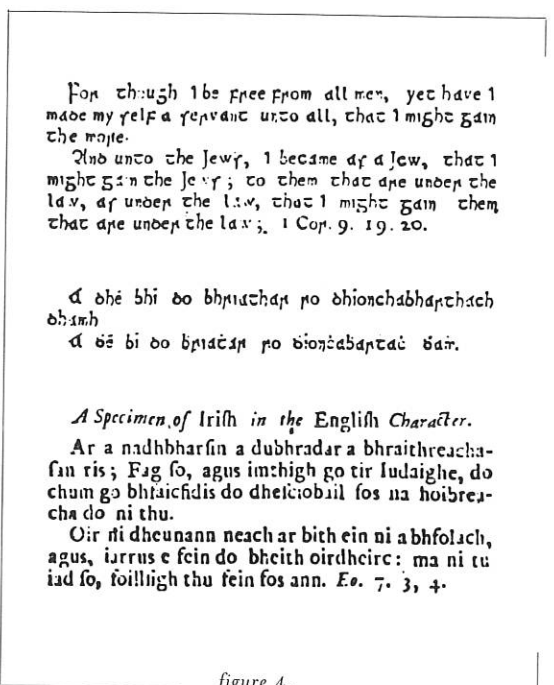


figure 4.

EXAMPLES OF TEXT USING THE MOXON IRISH TYPE TO PRINT ENGLISH (TOP), IRISH USING THE DOT AND H TO DENOTE ASPIRATION (MIDDLE), AND IRISH SET WITH ROMAN TYPE (BELOW) FROM JOHN RICHARDSON'S *Proposal*, 1712.

2 RICHARDSON, JOHN. 1712. *A PROPOSAL FOR THE CONVERSION OF THE POPISH NATIVES OF IRELAND TO THE ESTABLISHED RELIGION*. LONDON, 5.

On the other hand, in 1712, John Richardson, author of *A Proposal for the conversion of the Popish Natives of Ireland to the Established Religion* placed great importance on using the Irish character. (figure 4). He argued that the use of the aspirant dot instead of h resulted in the saving of approximately ten percent of space; that the language was easier to learn in the Irish character; and that the Irish character was preferred by the best authorities on the matter.² In support of his argument Richardson presented examples of English printed in the Irish character; Irish in the Irish character using both the aspirant dot and the h following the consonant; and Irish printed in Roman type.

Ten years later, in *The Church Catechism in Irish*, an alternative case was made by the Bishop of Down and Connor, Francis Hutchinson, this time for roman type. After criticizing the Irish alphabet for its inadequate number of letters, he suggested that the special letters: "are awkward and strange" he complained that an intolerable number of long words resulted from the addition of needless letters, while many of the words were then shortened again by the replacement of the more useful letters with confusing abbreviations.

Hutchinson proposed his Raghlin Alphabet, (figure 5) made up from roman and italic letters, as an alternative method of printing Irish. In it a second G was added to both capital and lowercase sets, using an additional italic G with the roman alphabet and the roman G with the italic alphabet in the uppercase, and by adding the italic g to the roman, and the italic j for g to the italic

alphabet in the lowercase, together with an additional y added to the roman and italic lowercase. With regard to the second g's Hutchinson explained: "Again, as two g's, g hard and gee soft, are mentioned in the alphabet, for g soft we intend to have put i consonant, or an italic g, or only g with the tail reverted: But in the English we found it hardly twice, and in the Irish I am not sure whether the sound is found: And therefore we made little use of it, but yet let it stand in the alphabet, that others who come after may consider it, and use or leave it as they find best." The J is removed from the capital and lowercase alphabets which otherwise remain as the full conventional roman alphabet. Hutchinson maintained: "If that benefit reaches only to that Island Raghlin, which it is prepared for, it will be richly worth all the pains we have taken; but if it should prove a step, which the Charity Schools should carry on, to the converting any considerable number of natives through the whole Kingdom, how important would be the advantage then?"³ The experiment would not seem to have met with much success, for it does not appear to have been put to any significant further use.

Another rather complex proposal to resolve this matter was introduced by Edward Lhuyd in his *Archaeologia Britannica* of 1707. (figure 6). This work incorporated "A brief Introduction to the Irish or ancient Scottish Language" in which the anglo-saxon character was used for printing the Irish text. Lhuyd was aware of existing fonts of Irish type which, either through difficulty in obtaining them or by choice, he did not use. Commenting on the inclusion of abbreviations in Irish he argued: "These abbreviations are in some measure still continued ... there are also some few of them cast amongst the Irish letters at Mr. Everingham's press in London; and at the Irish press in Louvain."⁴ Furthermore, he justified his typographic proposal by: "informing such as are altogether strangers to the language, that is not any difficulty of its pronunciation that makes it appear so singular, but our not having at the press, those auxiliary or

The Raghlin Alphabet.
 ABCDEFGGHIKLMNOPQRSTUUVWXYZÆ.
 ABCDFEGGHIKLMNOPQRSTUUVWXYZÆ.

Roman <i>Italic</i>	
a	A
b	b bec
c	c che as in <i>Charity, Chalice, Charles,</i>
d	d dec <i>Richard, Archbishop, such, which,</i>
e	e e <i>approach.</i>
f	f eff
g	g ghec
g	j jec
h	h atch
i	i i
k	k insted of c hard, as <i>Aker, Kaptain,</i>
l	l ell <i>Kandle.</i>
m	m em
n	n enn
o	o o
p	p pee
q	q qu
r	r ar
f	f est
s	s ese
t	t tee
u	u u
v	v V y or Vaw.
w	w kalled <i>wi, as, Wi, a, s, Was, Wi, &c.</i>
x	x eks
y	y i long
z	z kalled <i>yi, yi, o, u, you, yi, o, k, e,</i>
	<i>ezard or zod or ffoft. (yoke. Fñ)</i>

Kesh. Kred do rinnadar do yeca a'are agus do yeca-vaare an tan fiin ar do hons?
Fie. Do yalladar agus do vodidar tree neche an Mainim. Akedor, Go nultin don Diaval agus da Oibreheev oole, do Foimp agus do Yeevanis an droch-healfe agus do gagh oole Anviancev pek-kah a na kolla. An dara huait, Go kredfinn gah oole Artikle don Chredieev Chrediee : Agus a tres Uair,

³ HUTCHINSON, FRANCIS. 1722. *THE CHURCH CATECHISM IN IRISH.* BELFAST, PREFACE.

⁴ LHUYD, EDWARD. 1707. *ARCHAEOLOGIA BRITANNICA.* OXFORD. 304.

figure 5.

THE RAGHLIN ALPHABET WITH A SAMPLE SETTING (INSET), FROM FRANCIS HUTCHINSON'S *The Church Catechism in Irish*, 1722.

A, a *Angl. v, aw Angl. b, b; x, ch; d, d; v, dh; e, e; f, f; B, B; G, gb; Q, ng; i, ee; Angl. k, k; l, l; m, m; n, n; o, o; p, p; r, r; s, no r, sb Angl. t, t; u, u; oo Angl. v, v; y, i Angl. in Third, bird, &c. no ao* Ghaioheilg.

"Kreidim a'n 'Ia atair na'n uile xuvaxd, Krutaiteoir neive & talvan : Agus an Iosa Krist a eunvaksan an diarnaine, nox do gavab on Spirad nyv; rugab le Muire oig, bo 'ulais an fais fa Fuisik Filaid, bo kroxab, bo keufab, Fuair bas & do hablaikab, do xuaid yios go hifrean, do eirgib o vas a gionn an treas la, do xuaid sus ar neav, agus at a noiy na huibe ar deis De, Atair na nuile xuvaxd : as yin ciofas bo vreit vreit ar veoghaiv agus ar varvaiv. Kreidim an fa Spirad nyv, a'n Eaglais nyvta xovxodxionn, ku-man na nyv, maitcamh na beaktab, eijeirge xodla na marv, agus an veta vartanax. Amen.

figure 6.

EDWARD LHUYD'S PROPOSED IRISH ALPHABET WITH SAMPLE SETTING FROM HIS *Archaeologia Britannica*, 1707. THE ANGLO-SAXON CHARACTERS WERE TAKEN FROM THE SMALL-PICA DE WALPERGEN FONT AT THE OXFORD UNIVERSITY PRESS.

pointed letters they use in writing." In addition, he points out: "Another cause of dislike that strangers have to the *Irish*, is to find the auxiliary *h* made use of so often ... now this disagreeableness and inconvenience might, in my opinion, be removed by omitting after the example of others those superfluous letters, and by printing the words exactly (as the *French* begin to do now) after the manner we speak them, which may easily be done by making use of an alphabet, made up of *Latine* and *Irish* characters." His proposed alphabet used the irish d, g and t. He suggests: "as there are without doubt but few printing-houses where these characters d[h], g[h] and t[h] are to be found; it will therefore be convenient to use in their place *Greek* characters, δ, γ and θ and likewise, if there be occasion for a farther distinction, the *Greek* letters λ for ll, β and μ for bh and mh ..."

A bewildered-sounding Lhuyd explains: "all I design by it is the expediency of making use of such an alphabet in printing the *Irish* language in such places where there are few or no *Irish-Men*." He had a sample of the Creed printed in this proposed alphabet, which uses roman, irish (anglo-saxon), greek and upside down anglo-saxon g for ng. While the

"A daoine uaisle," arsa an taitair Brian, "na daoraid me, go gcluine sib deiread an sgeil. Cuirtear an Seoigeac cum a mionna."

Do mionnaig an Seoigeac gur poad e fa do—go bfuair se an cead bean aig baile Ghoirt—go raib si bliadain aige, laim le enoc Maga—gur imtig si uad as sin—nac raib fios aige cia leis—bi se fein fan baile—ni faca se ag imteact i—ni raib si fallain, andiaig cloinne breit—fuar se an dara bean san ait sin—saoil se gur eug an cead bean—saoil an sgart e—d'eug an dara bean.

"Anois, a daoine uaisle," arsa an taitair Brian, "so litir a fuar mise, faoi laim sagairt paraiste an tSeoigig, a dearbuigeas gur eug a cead bean—go bfaca se fein marb i—s go raib se ag a torram—gur pds se an Seoigeac, na diaig sin, le cailin eile san ait;—s gur eug sise fds o soin. Feucaid anois, go rinne me mo ditcioll an firinne fagail amac."

figure 8.

WILLIAM NEILSON'S ASPIRATED ROMAN TYPE FROM HIS *Grammar*, 1808.



A
S E R M O N,
On the danger of delaying of Pen-
nance.

Ego vado & queretis me, & in peccato vestro moriemini. Jo. 8. ver. 21.

Imeochuidh Mife, agus beidh sib dom iarruidh, agus gheabuidh sib Bas an bliur bpeacuidh. Briabra Chriofd ag Eoin, anfa B. Gsb. v. 21.

A T's Criofd ag bagairt a niu go nimeochuidh fe uain; go dturfaidh fe Col a Chinn duinn: Agus ni he fin a mbain, acht go dturfaidh fe cead sgaruidh agus gartha dhuinn, ag iarruidh ar fil-leamb, agus nach dtugann fe bin no aird prainn. Queretis me, & non inuentetis. Jo. 7. Agus mur bharr druighill air ar Mifhorunn, go leigfe fe dhuinn Bas dtaghail an ar bpeacuidh. Et in

figure 7.

IRISH TEXT SET IN ROMAN AND ITALIC TYPE FROM JAMES O'GALLAGHER'S *Sermons*, 1736.

genuine intent of Lhuyd to come to terms with the idiosyncrasies of printing in Irish cannot be doubted, his proposal was too complex and farfetched adding confusion rather than clarity to the matter. It is of interest that Bishop William Nicholson, in printing the translation into English of Lhuyd's preface, hadn't the means of printing the irish characters for Lhuyd's proposed alphabet. Introducing a further layer of symbolism, he notes that the Letters marked thus *, should be in *Irish* Characters, but none such are in the Kingdom."⁵

A particularly popular devotional book of this period was *Sixteen Irish Sermons* by James O'Gallagher, printed in Dublin in 1736. (figure 7). Both roman and italic type were used to print the Irish text, regarding which O'Gallagher explains on the title page that the book was set: "In English characters; as being the more familiar to the generality of our Irish clergy." He further points out in his preface: "If my brethren will admire, why Irish sermons should come clothed in English dress, which seems not to suit so well the Irish language. One reason is, that our printers have no Irish types: and another, that our mother language, sharing so far the fate of her professors, is so far abandoned, and is so great a stranger in her native soil, that scarce one in ten is acquainted with her characters. Lest any, then, should be discouraged from making use of this little work, by being strangers to its very elements, I have made choice of letters, which are obvious to all; and in spelling, kept nearer to the present manner of speaking, than to the true and ancient orthography."

At a political level, the printing of Irish, particularly in the irish character, was officially suppressed, as it was seen to foster nationalism, and thereby serve the enemies of the crown. This posed a dilemma for many of those promoting the doctrine of the Reformed Church, for they recognized the need to communicate in Irish while at the same time opposed the nationalism that was associated both with the language and with the Roman Catholic membership they sought to influence. Christopher Anderson explained: "About the beginning of this [eighteenth] century, an expedient presented itself, that no doubt deemed a happy one—which was, that if this Irish language was to be tolerated at all in the British dominions through the medium of books, it must only be by using the English or Roman letter.

⁵ NICHOLSON, WILLIAM (LORD BISHOP OF DERRY). 1724. A TRANSLATION OF THE IRISH PREFACE TO MR. LHUYD'S IRISH DICTIONARY. THE IRISH HISTORICAL LIBRARY. DUBLIN. THIS TRANSLATION WAS PRINTED BY AARON RHAMES OF SKINNER ROW, DUBLIN.

The jealousy which had reigned for centuries over the language, now settled itself, as a last resort, upon the appropriate character which belonged to it ... The entire abolition of the language was about to become the prevalent and favorite idea, as it continued to be during the whole of the eighteenth century."⁶ He suggests that with the death of Richardson and other advocates of the use of Irish in the printing of the Protestant doctrines, there was no pressure to use Irish in print at official levels, which contributed to its decline during the eighteenth century.

In 1786, Dr. John O'Brien, Bishop of Cloyne and Ross, published his Irish-English Dictionary in Paris. In his preface, O'Brien states that: "as the *Irish* characters are not known to strangers, and even far from being generally understood by the natives of *Ireland*, whereof but very few apply themselves to the reading of Irish books or manuscripts, it hath been judged more expedient and of more general use to print this Dictionary in the *Roman* and *Italic* types."

The first roman type specifically prepared through adjustment for use in Irish would seem to have been that used to print William Neilson's *Introduction to the Irish Language* in 1808. (figure 8). Anderson describes this development: "it is evident that ... putting a dot (.) over a letter, ġ as, will be preferable to annexing *h*, in order to express the power arising from the combination, whether the character employed be Irish or Roman; of this Dr. Neilson has been so convinced, that he has used the dot, even though he employs the Roman character; a further advantage is, that less room is occupied by the word, a benefit which affects not merely the size of the book, but also the ease with which the meaning of the word thus presented in a condensed form to the eye, will be understood."⁷

Basically two systems could be used to achieve this effect. Firstly, the top portion of the shoulder of the metal of each effected letter could be removed, making room for the insertion, at the composing stage, of a similarly adjusted full stop point. This procedure involved an extremely tedious setting operation, and frequently resulted in an inconsistent place-

ment of the aspiration dot. Secondly, and more likely the case regarding the Neilson type, the original punches of roman sorts could be adjusted by combining the punch for the dot with that of the appropriate letter, and a matrix formed from a single strike. This was done in such a way that the dot could be removed or added to the punch as required. It was usually not possible to add dots to the capital letters without creating the need for additional interlinear spacing, hence, Neilson's type made use of the dot on the lowercase letters only, and in this regard the distance of the dot varies up and down from one letter to the next and from the retained dot over the *i*, resulting in an unsightly, uneven line of dots. Furthermore, the placement of the dot to the side of those letters with ascenders has a particularly awkward appearance.

About the beginning of the nineteenth century, the question of the appropriate letterform for printing Irish re-emerged as one of major significance. The newly formed Hibernian Bible Society set up a sub-committee to consider and report upon the question of printing an edition of the Bible, in the Irish language and character.⁸ A number of views were considered in this regard among which was that of His Grace the Archbishop of Tuam who reported: "We are convinced that the Irish character affords facilities for the expression in print, or writing, of the Irish language, which the English character does not; and from its nationality meets the prejudices, and gratifies the feeling of the people. That, therefore, for the purpose of being enabled to put the Scriptures into the hands of the population, in the most useful and most acceptable way, we earnestly solicit, without delay, an edition of the Irish Scriptures, in the Irish Character."⁹

The committee concluded: "we feel confident, that if the Irish Bible be printed in the Roman character, it will entirely fail of its object, and of acquiring that extended circulation which the popularity of the native character will ensure it. We conclude this point with an allusion to two facts; the one, which we have mentioned before, is, that Irish Bibles in the Roman character are now said to be lying uncalled for in the depository of the British and Foreign Bible Society; the other is, that the unanimous testimony of the experience of the Irish Society is in

⁶ ANDERSON, CHRISTOPHER. 1828. *HISTORICAL SKETCHES OF THE ANCIENT NATIVE IRISH AND THEIR DESCENDENTS*. EDINBURGH, 55.

⁷ ANDERSON, CHRISTOPHER. 1818. *A BRIEF SKETCH ... THE HOLY SCRIPTURES*. DUBLIN, 71.

⁸ HIBERNIAN BIBLE SOCIETY. 1823. *ABSTRACT OF THE REPORT OF A SUB-COMMITTEE, RELATIVE TO THE PRINTING OF THE BIBLE IN THE IRISH LANGUAGE AND CHARACTER*.

⁹ HIBERNIAN BIBLE SOCIETY, 12.

favor of the native letter: — so convinced are they of its importance that they confine themselves entirely to it, and have never sought for Bibles in the Roman character; while, such has been the demand for the New Testaments in the Irish character, that they have never been able fully to supply it.”¹⁰

Following from these considerations it is recorded in the minutes of the report: “Resolved — that arrangements be entered into for the purpose of printing a pocket edition of the whole Scriptures in the Irish Language and Character; the work to be undertaken as soon as the funds of the Society will permit.”¹¹ The Bible was completed in 1827, its publication was announced in the report of the society that year: “The Irish Bible in the vernacular character, so anxiously looked for, has at length been completed.”¹²

GNÍOMH CREIDIM,

A Dé, creidm go drongbálta, gur b'aon Dia amán tú, crúnuig-tóir, agus árdtiarna neimhe 7 talmán; go b-fuil do mórdaict agus do marteas dócomseac. Creidm go drongbálta go b-fuil ionadsa, an t-aon Dia amán, trí pearsana go h-eidrealligte, agus comionan añ gac uile nid, an t-Atar, agus an Mac, agus an Spiorad Naom. Creidm go drongbálta gur glac Iosa Críosa Dia an Mac, colañ daona, gur gabad ón Spiorad Naom é, gur rugad é ón Maigdean Muire, gur fulang sé páis, agus go b-fuar bás air an g-crois, cum siñe d'fuasguilt, agus do sábal;

gur aiséirig sé an treas lá ó mar-bib, go n-deacaid sé suas air neam, go d-tiocfaig a n-delead an t-saogail, cum breiteamnas do tabairt air an g-cme daona; go d-tabarfaid sé aoibneas síorruig mar luac saotar do na deagdaomib, agus go d-teilghid sé na droc-daome go pianta síorruige ifriñ. Creidm so, agus gac nid eile do craobsgaoilas an naom Eaglais Catoilce Rómánac dúin, de-brig gur tusa, A Dé, an firne domeallta d'foillsig rad, agus d'ordug dúin éisteact leis an Eaglais, ó sí bun, agus piléur na firne í. Añsa g-creideam so tá rún seasmac agam le cunghaib do naom-

figure 9.

JONATHAN FURLONG'S ASPIRATED ROMAN TYPE FROM *A Christian Friend*, 1842.

Another roman typeface adjusted in a similar fashion to the earlier Neilson type, was used to print *The Christian Friend*, a prayer book compiled by Jonathan Furlong in 1842. (figure 9). The text incorporates both aspirated capital and lower-case letters, however, a close examination of this feature reveals that the dot, while consistently fixed on the lower-case letters, moved from left to right on certain capital letters, perhaps indicating that it was introduced during the type setting process over the relevant capital letters, while the lower-case accented letters were cast from adjusted matrices.

Furlong seems to have given the matter of the most suitable type for Irish much consideration, for while in 1839 he had an *Irish Primer* stereotyped and printed using Irish type, three years later a second edition was produced for him not as a reprint as would perhaps have been more expedient, but using roman aspirated type. In a note to the reader Furlong explains this choice: “To those who speak the Irish, and can read English, this little elementary treatise on the Irish language will be found of the greatest use, to facilitate the reading of that Idiom. Since the publication of the first edition of it, experience has proved that the chief difficulty is, to persuade persons that the reading of the Irish is so easy as it really is. Surely nothing can be acquired without some trouble; and if the trouble which, with the aid of this primer, is required for reading the Irish be considered in the ratio of effect, it may be a matter of some difficulty to point out any other acquirement so easily obtained, so interesting, and so useful, as that of the reading of our native dialect; which in the short space of one hour, hundreds have accomplished since the publication of the first edition of this primer. This second edition contains the same matter as the first, but the arrangement is somewhat altered, in order to render it more suitable to the capacity of even a child.”¹³

While neither the Neilson or the Furlong adjusted roman type found much favor among printers of Irish, this did not deter Canon Ulick J. Bourke from embarking on a similar experiment.

Bourke held some very particular opinions regarding the proper letterform for printing Irish: “To write Greek in the characters of any foreign language is to destroy half its worth ... Greece has never really suffered the disgrace of having her national language thus paraded in alien costume. Ireland has. Her written language has been tortured into a thousand ignoble shapes, which have made it appear to the eyes of some the penciled jargon of slaves ... the Irish language has been unmercifully mangled in endeavoring to make it look neat in its foreign anti-national dress. English letters and English accent, however grand they may appear to some, are, to say the least, quite unceltic, and therefore most unfit to display the natural grace and energy of the Irish language. Hence no Irishman ought to write his native tongue in any other than in Irish or Celtic characters.”¹⁴ Over the next seven years, however, Bourke had reason to change his

¹⁰ HIBERNIAN BIBLE SOCIETY, 26.

¹¹ HIBERNIAN BIBLE SOCIETY, 30.

¹² MASON, HENRY JOSEPH MONCK. 1854. *MEMOIR OF THE IRISH VERSION OF THE BIBLE*, 61. IN FACT THE 1827 EDITION, RATHER THAN FOLLOWING A POCKET-SIZE FORMAT, WAS PREPARED AS AN OCTAVO. SUBSEQUENTLY THE POCKET-SIZE EDITION WAS PRINTED IN 1830.

¹³ FURLONG, JONATHAN. 1842. *AN IRISH PRIMER*. DUBLIN, PREFACE.

¹⁴ BOURKE, ULICK J. 1856. *THE COLLEGE IRISH GRAMMAR*. DUBLIN, 19.

mind, for in his major work *The Aryan Origin of the Gaelic Race and Language* he used a new adjusted roman type which he called Romano-Keltic and asked: "What is the origin of that letter or character, which, as present is usually called old Irish character."¹⁵ In answering himself he points out "it is Roman; and, as a historic fact, proved by numberless manuscripts, it is Roman. Therefore, it is a misnomer to call these letters in printed Irish books and manuscripts *old Irish character*, whereas, in real truth, they are old Roman characters ... Is there any portion of the so-called Irish character to which Ireland can lay claim." He suggests "There is the (•) dot, or diacritical mark alone which points out to the eye the phonetic fact, that a change has taken place in the sound of the radical consonant. That portion of the character, and that alone, is Irish." He continues in support of the roman letter: "The present writer then suggests, and he himself adopted the plan, to make use, like most of the peoples of Europe, of modern Roman character, retaining, the while, the dot over the letter to note to the eye the change of the sound which the affected consonant represents. Thus the new letter is Roman, while it is Irish."

Two years later in his introduction to the vocabulary appendix to his edition of *Sermons in Irish-Gaelic*, (figure 10). Bourke again explained: "The modern letter in use amongst us, such as I am penning, can be employed, merely super-imposing the dot or diacritical point on the letter to be aspirated. When I wrote the 'College Irish Grammar' I was under the impression, from all I had heard and known, that the form of the letter called the 'old Irish character' belonged actually to the Irish race, as special to their written speech, just as Greek letters are special for the language of the Hellenic race. A wider range of reading and greater experience proved beyond all doubt that the 'old Irish character,' as such, was old 'Roman' the parent of the Anglo-Saxon, and the German, and like them borrowed from the Romans."¹⁶ He continued by suggesting: "It is only fair to come to the conclusion that, as the 'old Irish character' is really Roman and the modern so-called 'English letter' is Roman also, therefore, we, to be up to the age, ought, like men of sense, to adopt that letter which is best, the most pleasing to the eye, the readiest in writing, and that which from practice is to our own hand ready and easy. To supply the required 'dot' or diacritical point in a smooth modern Roman letter is as easy as to supply it on the angular or squared letter known as the 'old Irish character.'"

In the later part of the nineteenth century the various, well-intentioned, views of those interested in the Irish language during this period of decline in its spoken use, established extreme positions regarding its printed form, with very little concession given by either side. In attempting to provide a compromise solution, the dilemma was addressed by the Reverend Edmund Hogan, who states: "As to Irish type 1) it is beautiful to look at, though like German and Greek it is more trying to the sight than the Roman; 2) its d, f and t bear the dots with more grace than does the Roman; 3)

AN CEUD PUNO:

An uair a tig bam-rígan air bí go nuadh éum rígaíta
no éum caíraí, bí spéis agus dúil air an uile dúrne í a
feicsint; teid an t-uasal agus an t-ísiol, an lag agus an
laidir, an boít agus an saibhir, 'nna áraicis agus 'g a
fáiltugad; ní bídeann níd air bí le feicsint aít féastaíd 'g
a g-caríeaid; fíonta 'g a n-dórtad, gunnaíd móra 'g a
sgaoilead; cruit agus orgáin 'g a semm; brontanais mór-
luaid 'g a b-pronnaid do 'n bam-prionsa, ann aon focal
an uile cneál solomann agus subailce gnítear le linn
Prionsa no bam-prionsa íeact a glacad saib air an
g-coróin.

figure 10.

ULICK BOURKE'S ROMANO-KELTIC TYPE FROM HIS EDITION OF O'GALLAGHER'S *Sermons*, 1877.

ní rugabar orm; rugadar ar a chosaib-sion.	ye laid no hold on me; they held him by the feet,	<i>m. 26, 28.</i>
beirid air agus tabraid lib; cionnas do beuraíds a b-feill air-sion; rugadar na hógánaig air.	take and lead him away; how they might take him by craft; the young men laid hold of him.	<i>mk. 14, 15, 14.</i>
ar m-breith do Pheadar air do thionngain achmusán do thabairt dó.	Peter took and began to rebuke him,	<i>mk. 8.</i>
rugadar na sgoíoga orra, agus do gabadar ar fear díob agus do gabadar do chlochaib ar fear eile.	the husbandmen took them, and beat one and stoned another,	<i>m. 21.</i>
ag sínead a láime ar an m-ball d'íosa, rug sé air.	Jesus immediately stretched forth his hand and caught him,	<i>mk. 14.</i>
ann sin rug Diarmaid ar Ghráinne	then Diarmaid caught Gráinne	<i>dg. 146.</i>
do breith ar dreanguid.	to catch a flea.	<i>b. 221.</i>
má beirhear é aiseocaid sé seacht n-oirid.	if he be caught, he shall restore sevenfold,	<i>pr. 6.</i>
ar m-breith ar leanb dó do chuir sé ann a lár é.	he took a child and set him in the midst of them.	<i>mk. 9.</i>
beirim ort, <i>Lucerna Fidel.</i> 338	I hold you, I have you.	
do breith air a m-bréig folluis.	to take him in a flat lie.	<i>b. 220.</i>
do rugad orm go cealgach.	I brought my hogs to a fine market.	<i>b. 216.</i>

figure 11.

IRISH ASPIRATED ROMAN TYPE FROM EDMUND HOGAN'S *Irish Phrase Book*, 1891.

15 BOURKE, ULICK J. 1875.
*THE ARYAN ORIGINS OF THE
GAELIC RACE AND LANGUAGE.*
LONDON, 302.

16 BOURKE, ULICK J. 1877.
*SERMONS IN THE IRISH-GAELIC
BY THE MOST REV. JAMES
O'GALLAGHER.* DUBLIN, 388.

it is our own Irish character, and should be as patriotically preserved as are the German and Greek; 4) a people so conservative as the Irish ought to cling to their characters at all costs."¹⁷ Notwithstanding the above considerations, Hogan suggests that the Irish type might best be used for the publications of learned societies where "they have plenty of money and their writers have plenty of time ... I deem it useful and patriotic not to employ Irish letters in elementary books" since as he suggests the Irish letters are "old Roman, which Rome, and the world, except Ireland, have discarded for the improved modern Roman ... They are the type which Queen Elizabeth was the first to get cast [and thereby] struck at the Irish language and literature a blow under which it has reeled for three centuries." He considers that, writing in Irish letters was more time consuming and thereby more expensive to set; mistakes were more likely to occur in Irish type; Irish fonts were not "supplemented by italics or their equivalent." He considered that pupils required more time learning to write the Irish character, and "as a rule, the writing was so wretched as almost to deter a person from reading it." He suggests, furthermore, than many "are deterred from reading Irish books by the strange look of the letters" and concludes his observations "Since I feel that for these reasons Irish type is not as good as the modern Roman, I do not employ it, as I would not use an old Roman or Irish plough, or go in a boat, like St. Brendan's, from Kingstown to Holyhead, or in a 'chariot' like Cuchulaind's from Dublin to Cork; or give up coal, gas and electric light for turf, rush lights and candles."

Hogan used as aspirated roman type which attempts, (figure 11) through compromise, to please those favoring the retention of the dot with roman, and those preferring the use of the h. He explains his scheme: "In books the nine aspirated consonants are marked with dots, or with h's (as in O'Brien's Dictionary); so that the pages are crowded with dot's or h's. By printing ph, ch and th, as they are written in old Irish, I diminish the dots by one-third or more and lessen the proverbial danger of omitting the dots; by dotting the other six letters I diminish the h's by about one-third. I propose this compromise to the partisans of both methods of aspiration."¹⁸ This experiment also, would seem to have failed, for rather than please all, it seems to have found favor with none, although it must be said, that the roman

17 HOGAN, EDMUND.
1891. *IRISH PHRASE BOOK*.
DUBLIN, 6.

18 HOGAN, EDMUND, 7.

used was a rather well proportioned type and the overall color on the page was even.

Despite the many arguments for the roman letter, the major publishers of Irish, namely: the Society for the Preservation of the Irish Language, the Gaelic Union and later the Gaelic League, all favored the irish character. It should be noted, however, that the editor of the *Gaelic Journal* had the policy that: "Our contributors are free to use their own judgment as to the characters in which they write."¹⁹ The debate continued. Standish O'Grady made an interesting comment regarding the choice of roman type for the initial volume of his *Silva Gadelica*. He states at the conclusion of the preface: "Nor must I omit hearty tribute to the good-will and intelligent interest manifested by all concerned in the material production of this book: the Irish was printed as readily and as correctly as the English, and throughout there has not been a hitch. This leads me to briefly account for non-use of Irish type: the reason is a business one simply; it was commercially impossible. The old character is the best for texts such as I have printed, in which aspirations abound; scientifically, it is not suitable for the oldest texts: for them italics are essential, and in Irish type you have them or not."²⁰

On his inaugural address to the Society for the Simplification of the Spelling of Irish in 1910, Osborn Bergin strongly recommended the use of roman type for printing Irish, he states: "Once you admit that the use of the ordinary international form of the Roman alphabet will not turn Irish into English, any more than it will turn Irish into French, the way becomes clear for considering some of the advantages of the course we recommend."²¹ He outlined the disadvantages of the Irish character: "the modern form of the Roman alphabet is in possession; no publisher finds it worth his while to lay in a large stock of Gaelic type of various shapes and sizes, and no typefounder can be expected to experiment in new founts." He asks "how many newspaper offices in Ireland can afford double sets of linotypes?... Can you imagine any firm going to the expense of double sets of typewriters, and cutting itself off from the telegraph system of the world?" Furthermore, he states: "As for using the Medieval alphabet in scientific

19 EDITOR'S NOTE. 1883.
CORRESPONDENCE. *THE*
Gaelic Journal 1:9, JULY,
292.

20 O'GRADY, STANDISH H.,
EDITOR. 1892. A COLLECTION
OF TALES IN IRISH. *SILVA*
GADELICA 1, PREFACE, XXVIII.

21 BERGIN, OSBORN. 1911.
IRISH SPELLING — A LECTURE.
DUBLIN, 14.

work, I need only say that, in dealing with my own subject — the scientific study of the earlier forms of the language itself and the literature produced in it — the Roman alphabet is the only one in use." He adds that "I hold it to be educationally unsound to teach children to read or write in two different alphabets, or two different forms of the same alphabet at the same time." He continued with some observations that reflected the concern of many of his fellow advocates of the roman letter: "It is a question of type. On the other hand, the capitals and lowercase letters are too much alike, and too much [interlinear] space is wasted in order to leave room for aspiration marks in case they should be wanted. On the other, you have, as I have said, the fruit of centuries of experiment in many lands in the direction of clearness and convenience, with all manner of special types — italic, clarendon, egyptian, and so on — to draw on when necessary."

Writing in 1969,²² Brian Ó Cuív points out that: "On the setting up of the Irish State in 1922 there was a tendency from the outset to use Roman type in official documents and especially in the work of the Oireachtas. Indeed Roman type had been used to some extent in the official printed reports and documents of the first Dáil Éireann in the period 1919–1921 and, one might add, for the Irish words and names in the printed proclamation of *Poblacht na hÉireann* in 1916.²³ However there was no definite rule requiring its use in all the government services after 1922 and official policy vacillated, especially in the Department of Education where a change of government was sufficient to bring about the abandonment of a plan for an ordered change-over in the schools from Gaelic to Roman type. In the last two decades there has been a more realistic approach to the problem and there now seems to be general agreement in publishing and educational circles that it would be to the advantage of the Irish language that Gaelic type should be laid aside to take its place with *Ogam* as something belonging to another era, or, at most, should be used in inscriptions and the like where its antiquarian and decorative features can have appeal on aesthetic and sentimental grounds." Despite this popularity of the roman type for official publications in those years following the foundation of the modern Irish State, when the new Irish Constitution of 1937 issued it was printed in Irish type.

²² CUÍV, BRIAN. 1969. *THE CHANGING FORM. THE IRISH LANGUAGE*. DUBLIN, 26.

²³ CUÍV LATER STATES ON PAGE 151 THAT THE USE OF ROMAN TYPE ON THIS OCCASION WAS PROBABLY DUE TO THE LIMITED AMOUNT AND VARIETY OF TYPE AVAILABLE RATHER THAN TO A DELIBERATE AVOIDANCE OF IRISH TYPE.

²⁴ MCKENNA, LAMBERT. 1935. *ENGLISH-IRISH DICTIONARY*. DUBLIN: PREFACE, XI.

²⁵ JENNETT, SEÁN. 1958. *IRISH TYPES: 1571-1958*. *BRITISH PRINTER* 71, 52.

²⁶ PROSPECTUS BY WILLIAM BRITTON ANNOUNCING THE NEW IRISH TYPE IN 1964.

In the context of adopting a system of simplified spelling for his dictionary of 1935, Lambert McKenna makes reference to this uncertainty: "The question as to whether Roman or Irish letters should be used in writing Irish is a debatable one, strong reasons and weighty authorities being available on both sides. In the earlier stages of our work we used Roman letters, being instructed so to do ... When, subsequently, we had received instructions to adopt the Irish letters, the reasons for any simplified system of spelling seemed less urgent."²⁴ The limited range of styles available in Irish typefaces led Seán Jennett to observe in 1958: "It is problems of this sort that are helping to drive much Gaelic printing into the framework of roman characters. A great deal of Gaelic is already printed in roman, and no doubt more will be eventually." He proposes that some attempt should be made to extend the existing Irish fonts to include italic and small capital letters and that new Irish types be designed, but concludes more pragmatically: "This is a pipe dream and not likely to be realized. The alternative is much more simple and practical. It is no less than to abandon the Irish letter. Though I love it, I cannot in reason argue that it has a place in modern society. It can never now achieve anything like the variety of design and expression that modern conditions demand, and its use only serves to keep the printing of Gaelic out of the mainstream of European and American typographical progress."²⁵ He then proposes that existing roman be adjusted to include aspiration and accents, very much in the style of those adjusted roman types that have already been examined: "This would be a comparatively simple matter for the typefounder and the composing machine companies. If this could be done, all the typographical treasure of the roman letter would be made available to the typographic in Gaelic."

Perhaps influenced by the above article William Britton of the Leinster Leader Ltd. in the early 1960's addressed himself to this problem. He explains in a printed statement: "A method was then sought by which Roman types could be availed of without making reading more difficult or interfering with the general character of the typeface in use ... At the outset it was decided to endeavor to achieve these aims without any major alteration to the design of the basic Roman typeface. This type retains two of the letterforms of the Gaelic face which are designed to harmonize with the Roman letters and it is felt that they impart a distinctive appearance to the text without interfering with legibility."²⁶ To achieve this result Britton collaborated with the eminent typographer and publisher Liam Miller, who had a keen interest in this matter. A solution was arrived at which involved the use of the Monotype Times Roman with adjusted characters for lowercase t and f. Miller produced rough drawings for these letters and both he and Britton gave considerable thought to the positioning of the aspirant dots which were to be incorporated into the face to avoid the repetitive use of the h. Finished drawings were prepared by Britton in 1963 which show the new characters and the proposed position of the dots. (*figure 12*).

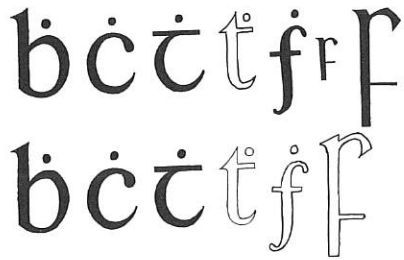


figure 12.

DRAWINGS PREPARED BY WILLIAM BRITTON FOR HIS ADJUSTMENTS TO MONOTYPE'S TIMES ROMAN.

Dfán mé balb, gan caoi agam an éicist a freagairc. Annsan, connac an duine marb—má's marb abí sé nó suaice go smior le cuirse na biocáille—ag iarai é réin a sócrú ar a súioacán cloíce, an dá spág á sahad i dtreo na ceine, agus a sceadamán a réiceac cun seancais. Tháinic an glóirín déireóil aris uaid, agus is beag nar caillead le neart scanartha mé.

"Ni fios crec ra a tucaid in Capitin ar in per monbuidé cneisgel becnertaig gur ba loc ocus aitreb ocus buanbaile do in tec bec aolban in escal in glenna. Fa gnat ris in bliadain do caitem .i. o beltane so samain for in draplas in nAlpain ocus o samain co belltine for in draplas in Erind. Feac n-aen ...".

figure 13.

SAMPLE OF TEXT USING ROMAN AND ITALIC TIMES ROMAN GAELIC WITH THE REVISED LOWER-CASE I AND F, FROM THE DOLMEN'S EDITION OF *An Béal Bocht*, 1964.

A note to this drawing indicates that "Times Roman was chosen as the basic font. Letter t to be cast, dots to be $\frac{3}{4}$ width of thick strokes and their own thickness in distance from top of letter. To ensure a uniform line of dots drop f to line and change serif to kern, shorten this to avoid overhang. If serif were retained letter would have a squat appearance. If it is decided to retain dot over the letter i it will be necessary to have re-cast with aligning dot."²⁷

Britton explains his efforts: "I approached the (h) problem in Irish from a purely typographical angle, taking into account, however, the historical development in reproducing the language. The (h) came into general use with the development of the Linotype machine when printers were confined to two fonts of Gaelic type 8pt and 10pt and had no display faces on the machine. Mechanical setting is about five times as fast as type assembled from the case and printers took the easy way out. In fact nobody came forward to direct the printers and a policy of drift ensued which was most regrettable ... One of the difficulties facing a typographer was the aesthetic effect of placing dots over letters which were not designed for this purpose. Also for easy reading all dots would need to be on the same visual line, Secondly the dots on a number of lines of caps printed consecutively would not be typographically pleasing. As you are aware the letters (t) and (f) are not in alignment with the x-height and needed to be re-designed to conform to the roman font and to carry the dot at the same visual level as the other letters."²⁸

Although decisions had already been made to use the ordinary roman character for Irish, to the disappointment of the advocates of the irish letter, Britton's proposal went some way towards easing this disappointment while adhering in principal to that decision, with a particularly effective result. Miller explains in a publisher's note to the only book to use this type that "within the language movement itself, there are two major schools of thought about the printing of the language, one adhering to the so-called tradition of *Cló Gaelach* and the other to *Cló Rómhánach*, or the use of the ordinary printer's repertoire of so-called 'Roman' typefaces with the addition of vowel accents and the use of lower-case 'h' to indicate aspirated consonants. There is right on both sides, for the lower-case 'Roman' alphabet of everyday print derives directly from the Irish half uncial of our historic manuscripts and is, in typographical terms, a practical expression of that alphabet."²⁹

Under the heading "New face for Gaelic type" the *Sunday Independent* announced in December 1964: "A new Gaelic typeface in which two characters — t and f — have been specially cut in Gaelic style is used in the printing of 'An Béal Bocht' by Myles na gCopaleen. (figure 13). The use of 'h' to indicate aspirated consonants is dispensed with. Mr. W. Britton, Leinster Leader Ltd. Naas, and the Monotype Corporation have co-operated in the production of the type, which may revolutionize Gaelic printing."³⁰ The lowercase i was not initially recast to align its dot with the other aspirant dots, and those on b and d were placed higher than those on the other consonants. Britton intended that should this development have proven popular, it could be applied to any roman face as required. This, as it transpired, turned out to be unnecessary. Apart from being used in a few pamphlets the only major use to which Times Gaelic was put was in the Dolmen Press edition of *An Béal Bocht* in 1964, for about this time, the irish character was finally and officially replaced by existing non-adjusted roman type for printing Irish, putting an end to the vacillation that for centuries surrounded this fascinating typographic dilemma.

27 NOTE ON DRAWINGS FOR "TIMES ROMAN" IRISH TYPE, WILLIAM BRITTON, 1963.

28 LETTER FROM WILLIAM BRITTON TO PÁDRAIG Ó MATHÚNA, DECEMBER 9, 1964, COPY MADE AVAILABLE BY W. BRITTON AND PERMISSION TO QUOTE THEREFROM GIVEN BY THE RECIPIENT.

29 [O'NOLAN, BRIAN.] 1964. *AN BÉAL BOCHT*. 3RD EDITION. DUBLIN: DOLMEN PRESS, PUBLISHER'S NOTE.

30 NEW FACE FOR GAELIC TYPE. 1964. *SUNDAY INDEPENDENT*, DECEMBER 6, 27.

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ERROL MILLER

HAS BEEN WRITING SINCE
 1972, THOUGH HE ADMITS
 TO BEING DORMANT FROM
 1978 TO 1986. HE HAS
 PUBLISHED WIDELY IN
 VARIOUS POETRY REVIEWS
 INCLUDING *RHINO*, *OYEZ*
REVIEW, *PUERTO DEL SOL*
 AND *MIDWEST QUARTERLY*.
 WORK IS FORTHCOMING IN
AMERICAN POETRY
REVIEW, *WEBSTER REVIEW*,
RHINO, *PAINTED BRIDE*
QUARTERLY . . . AND A
 CHAPBOOK, "THE
 DOWNTOWN DINER" IS
 FORTHCOMING FROM GOD'S
 BAR UNPLUGGED PRESS.
 HE LIVES IN LOUISIANA.

DESIGNER'S NOTE

In considering the layout for this issue of *VISIBLE LANGUAGE*, the common thread between the articles became the important element. In our present time of rapid change, we stand on the crest of a wave riding it to shore. The computer has changed forever the way we create, view and use written communication. These changes that occur, as the present moment becomes both the future and the past, also change social structures. Will we be better off? Will communication skills, thought processes and the ability to learn be enhanced? We can not know the answer until the wave reaches the shore. What we do know, is that eventually the wave will reach the shore. Change can engage us in a tug of war between the past and the future. Tension is created, but the outcome is already known — the future will become the present. By being caught up in this struggle, the

answers we seek are often overlooked. It is during these times of uncertainty that the poetic inspires us to look deeper. As we do, bridges of understanding become visible and the present moment becomes more meaningful. This frees us to join together as co-creators in our future, and notice that the tides continue to flow in and out, just as they have done for centuries.

The publication is divided at the center of each spread. This is the present moment to which the past and future are linked. The spreads further the idea of our struggle with time/change, by the movement of the text as it flows in and out of balance. This also makes reference to the flow of the tides. The beginning spread of each article makes use of a fixed grid, typography and hierarchy to indicate our human need for structure and our fondness

for the familiar, which has its roots in the past. As the pages are turned, the instability of the text becomes noticeable. At first this may cause some concern. (As does change.) But there is a grid. It just takes longer to recognize the rhythm. The poems are also rhythmically placed within the publication. They break with the established structure of the articles. The spacious layout for the poems represents the moments we are fully grounded in the present, held neither by the past nor preoccupied with the future. The outside cover imagery shows the struggle of the present moment between the past and possible future, while the inside represents the strength of the present moment when we ourselves are present in it.

Barbara Louise Skelly

to THE EDITOR

In the typographic mode of natural language, two sets of ratios are critical in establishing the underlying rhythms on which we construct patterns of meaning. At the risk of teaching my grandmother to suck eggs, they are:

1) In the horizontal dimension (the x-axis of typographic space), the beat is established by the width of the vertical stroke of the letterform relative to the interval between them. If the initial construction of the character set is such that the norm for this beat varies inconsistently and haltingly, the carrier wave, as it were, cannot be modulated efficiently.

2) In the vertical dimension (the y-axis of the page or screen), the beat is established by the ratio of the vertical dimension of the x-height ribbon to that of the vertical dimension of the ribbon of white which obtains between the x-height ribbons in consecutive lines of prose. If this ratio is subjected to arbitrary change, the opportunity for meaningful change is reduced. Again, meaning is a function of controlled change from the norm.

Before the advent of the adjustable mould for casting the standards in lead, the scribe had personal control of this pair of fundamental ratios, and learned to manipulate them meaningfully to great effect. With the development of letters and spaces cast in lead, movables were born of the mould fully formed, not assembled from parts as had been the case in the scribal mode of production. As a consequence, direct control of the ratios I have mentioned ceased to be in the gift of the assembler of the characters. As a consequence 'leading' was invented in an attempt to regain control of the ratio which obtains on the vertical axis of the language system. Near Enough soon became Good Enough and the rot set in.

A problem for today's systems designer who aims to improve on old-fangled ways, is to allow ready access to x-height dimensions expressible in human scale-units of measurement and discernable when viewed at reading distance. Designers of character sets, and the dimensions of the spacing system associated with them, might then take this facility into account when designing character sets for general reading purposes. This would allow typographers to specify both line-feed and x-height for the considered determination of at least one of the two basic rhythms I have mentioned. Then perhaps we can begin to take on board the advice of Mozart's dad to the lad, which was to take care of the spaces between the notes and the notes will take care of themselves.

Peter Burnhill
Staffordshire, United Kingdom

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