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Hypertext/Cybertext/Poetext

I

1. Reading, hearing, writing, performing the linguistically innovative poetries and swept up in the enthusiasms of their deep, but lo-tech, engagements with new textualities through formal experiment and in their play of significations, there is a temptation to say to its practicing writers and readers, “I/you/we/they don’t need ‘new’ technologies or ‘new’ media.” There is so much left to be explored, that is being explored, in both codexspace and performancespace, as to suggest that it would be a waste of time to buy into some novel textgadgetry; to risk an expense of spirit in the wastes of techno-narcissism; or to subject poetics “to the trade of a calculation that dominates most tenaciously in those areas where there is no need of numbers.”¹

2. No need of numbers? This essential term, read as enclosing a contradiction, is at once the sign of art-less “calculation” and the basis of all artistic formalism. Unresolved, it becomes a necessary reminder of the romanticized dissociation of “writing” (or, more broadly, verbal creativity) from its techniques and technologies, and the elevation of the former over the latter, as if certain privileged spheres of rhetoric—literacy and its codexspace being the examples necessary here—were transparent to the content they selflessly bear, whereas other “newer” varieties are branded forever with their technological origins.²

3. The machineries of hypertext, cybertext, and poetext are still often confused with the potential rhetorics they adumbrate. Even if these transient terms (as likely to fade and die out as to thrive within a short space of years or months) referred to physical delivery media, such as those associated with the cinema, there would still be no need in critical discourse to confuse the equivalent of camera or projection device with, for example, the grammar of montage. In fact, these technologically overdetermined textualities are realized in formal engineering which is itself “authored,” and this fact provides such

textualities with many of the qualities which most clearly distinguish them from other, previous and still dominant, technologies of literary culture.

4. "It is important to make it clear that literary developments in cybertext are not constrained by hardware technologies themselves; they are constrained only by software, which is an authored delivery medium." (Although "[a]part from these constraints which are surmountable through engineering, there are those produced by, as it were, a 'false consciousness' generated by the 'ideology' surrounding the current use of computer-based systems.")³

5. "These agents [active, co-creative functions of cybertextual media] are themselves constructed, and they may be authored by the writer or designer of both given text and its modulated form (in any particular reading or performance) as an integral part of the entire 'work.' Writers may also write 'with and against and amongst' the code."⁴

6. [Thus,] the advocacy of hypertextual or cybertextual technologies in the context of innovative poetics is not the same thing as promoting a new and better word processor. It is a continuity with the development of form-in-content or indeed the creation of new forms which has always been characteristic of the ancient and various tradition of innovative linguistic art. The writer may choose to inscribe new form itself in the work, proposing a novel poe-text with each new publication. (Versions of the present chapter revisited simple, hypertextual reformations of the linear exposition, using an indexing metaphor which is both familiar and internalized in Western codex-space.) The point is, whereas I am severely constrained in my re-engineering of an essay which will appear in a bound paper collection, in software the potential is much greater, the forms are more plastic, such that the creation of the form becomes an integral and appreciable part of the creation of the work, if not a necessary part.

7. [For] there is no requirement to engineer a form for each new text, no necessity to take up the (programming) skills which are the tools of a conception of writing extended into the technologies of its production. Form—even the conceptual poetic form and certainly not the (material) delivery medium—does not necessarily, in itself, determine the nature of the textuality instantiated in a particular work.

II

8. Apart from the advocacy of textual technologies to poetics as a continuation of its own practices, there is a growing literature which represents hypertext in particular as the instantiation or embodiment of modern and postmodern critical theory.⁵ However, while this literature acknowledges a quantity of previous, chiefly prose, work, especially modernist exemplars and criticism

associated with, for example, the poetics of Barthes and *Tel Quel*, and, to a limited extent, writers associated with, Fluxus, the *OuLiPo*, poststructuralist schools, and so on, and while it has engaged radical textualities in “traditional” delivery media—codexspace—it has not, especially in its more polemical moments or when focused on pedagogical methodology, given the same degree of attention to radical poetries *per se*—for instance those of Cage, Mac Low, L=A=N=G=U=A=G=E, and so on. Even these new critics of hypertext are occasionally caught in the uncertainty as to whether they should promote a new projection device—the “new” delivery media of electronic hypertext—or continue to develop a radical cultural critique. It is as if the supposed representation of postmodern critical theory attracts special privilege when set against its representation as a function of, say, the writerly (scriptible) text of codexspace; as a function, that is, of the writer’s proposal of new textualities, regardless of delivery media, and the reader’s disposal of interpretative, intertextual engagements.⁶

9. The underlying metaphors of critical theory’s instantiation or embodiment in “new media” are seductively rich, redolent of notions of (historical) originality, novelty, incarnation. If hypertextuality is the signal of a paradigm shift in verbal culture, then better ways of representing its significance may be found in analyses of the previous shift from orality to literacy. Here, Ong’s notion of the “internalization” of literacy is useful.⁷ It was not that codexspace, especially books and printing, embodied or instantiated a latent literacy in verbal cultures which had acquired writing technologies; rather, they allowed the internalization of literacy, its elevation to the invisible, all-pervasive “ground” of verbal culture, such that today, to take two examples, in high critical discussion, papers are read out loud in a pseudo-oration which has little, sometimes nothing, to do with orality, or, in the performance of poetry, where the reading of hyper-literate production is a norm, even amongst many poets for whom spontaneous “voiced” expression is an ideal.

10. Hypertext, [then], does not instantiate, but it may well allow the internalization of textualities or modes of verbal culture which have been characterized in recent critical theory. And, with the World Wide Web growing daily, massively, in accessibility and popularity—and no more or less socially or politically marked than was the printed codex—this does seem increasingly likely.

III

[Not all of the characteristics of hypertext receive equal attention in this chapter. Brief remarks will be made about many aspects of machine modulated textuality before concentrating on its engagement with the reader’s participation in the construction of meaning.]

11. Intertextuality is often cited as the modern critical term most clearly associated with and “embodied in” hypertext, but, just as clearly, intertextuality predates, even as critical concept, its cybernetic representations by a period of time which, some might argue, is equal to the entire history of literature. Going outside a text to other texts as a way of reading and understanding is not a notion which is dependent on a particular technology or is even, for that matter, confined to literacy (if, for these purposes, the assumption of the priority of writing in the term “text” is bracketed). In contemporary writing, intertextuality seems to me a “done deal,” an accepted and necessary part of writing practice across a wide range of discourses and genres. Beyond the promise of extreme convenience which is granted by hypertextual systems like the World Wide Web, the existence of hypertext does not add, conceptually, to our understanding of intertextuality as a strategy of reading and understanding.

12. In so far as intertextuality has problematized the notion of closure, however, the situation is more complex. Despite the priority of intertextuality as a concept, the physicality of the textual object, in codexspace, contributes to a sense of closure, and the related notions of, for example, “author”ization/ity, integrity, position in the textual hierarchies of aesthetic/critical value, “primary” vs. “secondary” material, and so on. Since hypertextual forms may bracket or disrupt the physical closure of the text, they clearly have potential to “open” the text to these underlying critical problems, and to popularize, or at least make familiar, literary works which are already predicated, for many of their effects, on this field of openness. The obvious examples here are from the intrinsically non-closed serial poem, stemming from *The Cantos*: Zukovsky’s A, Olson’s *The Maximus Poems*, and Blaser’s *Image-Nations*.

13. While strategies for representing non-linear forms in codexspace can and have been devised, cyberspace provides an environment in which a non-linear poetics—perhaps even one generalized to encompass linear and time-based varieties—should find room to grow and thrive.⁸

14. The problematization of the (unitary) identity, intentionality, presence or, indeed, existence of author(ity) is already addressed in the disruption of closure which hypertext proposes, although the composition of the elements (lexia) of most currently existing hypertextual work follows, for the most part, a conventional, “authoritarian” model. The construction of procedural, generative work in cybertext does, however, help to represent and generalize a disrupted, mediated, undermined authorship, or, as some critics have recognized, a notion of “cyborg authorship,” meaning one in which engineered reading or text-generation procedures are recognized as jointly “responsible” for the work and in which the human participant acknowledges arbitrary and procedural elements of cultural (self-)construction as aspects of her manifest identity(ies).⁹

IV

15. [Before returning to the reader's participation in the construction of meaning, consider that,] there are certain aspects of (potential) textuality which are more or less specific to work which is realized as software—procedures and figures which it would be very difficult to realize in other media. Unsurprisingly, these potentialities are associated chiefly with the production and presentation of the work, rather than with the literary substance of what is produced and presented, although this distinction is more useful in outlining these figures than it is in understanding them, where it instances the same problematized relationship between “writing” and its media.

16. The permutational “power” of the computer allows an approach to process-based work in which the adjective “experimental” takes on a sense closer to that which it carries in the laboratory. The time and effort involved in producing a text through procedural or chance operations by hand can be considerable. Software can be used to generate these texts relatively quickly, such that judgments may be made concerning both the results of the procedures and the procedures themselves. The implications of these judgments can then be fed back into the co-creative process. Alterations can be made to both the given texts and the procedures used to generate the final work. All this can be done quickly enough to give rise to a fruitful feedback loop, to experiments in the creation of meaning which even a scientist might recognize as such.

17. As delivery media, computer systems also allow the real-time presentation of aleatory and procedural work, which may be both complex and radically indeterminate to a degree which is very difficult to realize in codexspace. Not that the presentation of such work is impossible in more familiar media. Even as books, *Yi Jing* (The Classic of Change), Raymond Queneau's *Cent Mille Millions de Poèmes*, Mark Saporta's *Composition no. 1*, for example, allow their readers to become the producers of their texts, to such an extent that these works properly should not be considered as fixed texts at all—neither the static record of, for example, many throws of the dice, nor the application of, say, diastich rules (as with certain of Mac Low's printed works), nor a function of some set of specific readings by particular readers—the work in these and other cases is the entire conception and the whole process of its reading. Literary objects engineered through software (especially where the software is immediately accessible to or manipulable by the “reader”) allow a more thorough realization of works with similar textual characteristics (see 28 below), potentially works which may exist only as the literary performance of the object itself—where, for example, there is no static or persistent inscription, only a writing which is presented in a particular duration.

18. This type of work also reveals the explicit introduction of a third term into the writer/reader probability space. The programmer or engineer of the procedures takes on a role that is much more than that of facilitator/technician in an unusual form of publication. As the procedural manipulation

of literary texts becomes more sophisticated, the role of the designer of processes approaches that of the writer.

19. "Each term of the writer/reader/programmer triangle is a shifter. Just as writer may be reader, and reader, writer in current (postmodern) critical perspectives, so either of these absent agents may be programmers: systematic manipulators of text and intertext, making use of software which has become intimate with poetics. Poets and readers must become intimate with software."¹⁰ At the present juncture, the distinctions between the identities or positions represented by these three terms have been subverted (rightly so) by critical thinking; they remain in place more as a function of established or preferred cultural practice, actions and behaviors associated culturally with readers, writers, and programmers. Yet without even invoking the current disruptions of programmable media, it can be seen, for example, that the roles of writer and reader are constructed within particular cultures, and even within the micro-cultures of particular groups of reader/writers—mainstream/avant-garde; British poetry/US poetry/Irish poetry—and that "programming" a text, in the sense of designing it for a suggested mode of reading, has always been at least partly within the gift of the writer, and since the advent of desk-top publishing, has progressively involved both writers and readers in acts of what I'd be happy to call "textual programming."

20. If, through hypertext or any other delivery technology, literary objects are constructed as "open," then this permeability of writer/programmer is extended to reader/programmer, as readers configure or radically change the literary objects of their attention.

21. [Finally,] the potential media represented by networked computing systems offer novel metaphors and models for some of the crucial subjects of poetic writing. To take just one simple example, in the world of networks, multiuser systems—those sharing information-processing resources across several terminals—are a commonplace. The popularization of this new metaphoric vehicle may make it easier to conceive of multiplicity or decentralization in relation to, say, the brain(s) or body(ies) of the mind(s) or person(s) seen as multiuser system(s), but without the usual associations of such multiplicity with personality disorder, mental illness or harmful, anti-social disjunctions. For, in networked computing, plurality, multiple/parallel processing, and decentralization are signs of robustness and efficiency in our attempts to represent, manipulate, and create meaning from complex inputs and interactions.

V

22. [Briefly,] how might the existence of these systems and literary objects lead to the internalization of a shifted paradigm for language art? The usual way to answer this would be to say that it would arise out of the

popularization of new forms of textuality and as a function of perceived homologies between those forms and the new structures of understanding represented by developments in critical theory. Forms which demonstrate these homologies would tend to be privileged over more traditional forms, where the new forms matched ascendant, albeit subversive, modes of thought, as formal exemplars of that thought.

23. [However,] perhaps it would be as well not to attempt to ascribe any sort of priority to forms of thought and simply to see the popularization of alternative textualities as the development of “new forms of life”—and as hard evidence of realizable potentialities—not, necessarily, as homologous with supportive theoretical structures, but evolving and proliferating themselves along with other cultural and technological developments until they finally allow the internalization of strategies for the creation of meaning which are currently difficult or rare.¹¹

VI

24. Interactivity is, on the face of it, one of the most attractive and compelling promises held out by the new technotextuality, as also by the entire multimedia thrust of networked infotainment. Apart from their more directly venal ambitions, these would-be producer/broadcasters dream of replacing passive televisual half-life with “a fully interactive experience.” Meanwhile the makers of interactive texts promise real-time reader interactivity with the substance and sense of literary creation itself, as an (obvious) improvement over the (passive) consumption of the printed word, locked into lines and bound into the structure of the codex.

25. [But] “interaction” is a term which sits happily in the phrase “complex interaction,” and it implies reciprocity and mutual influence, between persons and/or things. It is too rich a term for the programmed stimulus and response, or configurational controls which are currently offered over the limited channels of today’s electronic publishing systems—keyboard, pointing device, screen; less commonly simple voice recognition and speech-generation; full-motion video or virtual reality if you are lucky. Doubtless, the technology will improve and improve quickly. In the meantime, it is strange that there is so much willingness to apply the term “interaction” to simple human-machine exchanges when in face-to-face encounters with other persons (or animals or things for that matter) we have experiences which are truly interactive, to an extent which might make us wary of applying the term when dealing with software.

26. Transactional might be more like it, as in the phrase a “simple transaction” or the sense of transaction as “a piece of business,” not only because it would be more consonant with current systems’ capabilities, but also because it points to the underlying intentionality of many developers

of so-called interactive technologies, for they will be quite happy to develop televisual culture up to a point where certain economically “essential” transactions may be carried out, but then, suddenly, have little inclination for taking things further, pending some return on their investment in R&D.

27. Interactivity might well be one of the goals of an extended textuality, but it is not enough to be content with or to fetishize a model of interactivity which is simply the arts-pages equivalent of handing over electronic credits in the virtual intermall as a (self-reflexive) expression of “choice.”

28. The question of interactivity is, however, a useful tool in the interrogation of the “writerly” text, and its readers’ participation in the creation of meaning. Espen Aarseth, in the course of his work on textuality in its new domains, has attempted to outline a method for categorizing different varieties of textuality, regardless of delivery medium.¹² Interactivity per se does not enter into his discussion. To radically simplify his scheme, he assesses texts on the basis of their Dynamics (static or alterable); Determinability; Transience (does the text reveal itself with the passing of time or must it be looked over/worked at); Perspective (allowing role playing by the reader or not); Access (random or controlled); Linking (explicit or conditional or no linking); and (the most complex scale) “User” function (interpretative or explorative or configurative or “textonic” which implies the ability of readers to co-author the text). Such a scheme allows him not only to characterize and analyze the widest range of textual phenomena, including the extraordinary, more genuinely interactive textuality of MUD and MOO spaces, but also to make some useful broader categorizations, elaborating on those represented by hypertext and cybertext, or ergodic and non-ergodic literature.¹³

29. For Aarseth, “cybertext” is a more inclusive term capable of encompassing most of the currently conceivable aspects of what we might call interactivity—text generation (dynamics), indeterminacy, animation (transience), role-playing perspective, configurative and authorship-sharing “user” functions, and so on. Hypertext is reserved for the normally static, but linked and randomly accessible texts which are now familiar to us through the World Wide Web. “Ergodic” texts are those which demand “work” from the reader above and beyond the work of interpretation (the “success” of which is bracketed pending authoritative critical judgment), or, in Aarseth’s more considered terms, “The ergodic work of art is one that in a material sense includes the rules for its own use, a work that has certain requirements built in that automatically distinguishes between successful and unsuccessful users.”¹⁴

30. Clearly, schemes such as Aarseth’s are useful for the better understanding of textual technologies, and this is entirely within the scope of every poet’s concerns. However, poets, even the innovative variety, seem to have been primarily interested in the construction of highly sophisticated texts which nonetheless remain conservative in their exploitation of the

potential of textuality itself as a plastic medium. There are good reasons for this. The “interpretative user function” in Aarseth’s scheme is, after all, the doorway to the writerly universe. While the manifest textuality of a poem may be limited in its “technology,” it may nonetheless open out into endless readings, ramifications, inspirations, linkings, intertextualities, not only in the mind of the reader, but in her library, her own writing, her life. There is nothing stopping a reader from extending the meaning-creation of any text of any kind outside itself into radically new and indeterminate (literary) situations. Returning to the spirit in which this chapter set out: what more do you want?

VII

31. [However,] poets, even the most codextextual, have also been concerned with the notion of performance, if not of the work itself in ritual, vocalized utterance, then at least in the performance of their texts within the world of letters or, indeed, reputation. So, I want to examine those types of performance which are accessible to some basic varieties of language art, while bearing in mind the potential for interactivity which is presented by these various performance modes, aiming to arrive at a point in which the mode of performance offered by a cybertextual poetics may be perceived more clearly.¹⁵

32. Strangely, in the performance of “purely oral” language art (as Ong makes clear), there is room for indeterminacy and true listener (“reader”) interaction. The bard never—or only in the most exceptional circumstances—performs the same work in the same words; the bard is always responsive to the mood and demands of the audience, to a degree which is typically far greater than that offered by the reading poet. This is strange, because the sound of the work is all there is—it is a transient shape as language in time and space which, instantaneously, returns to absolute physical nothingness the moment the performer’s voice ceases (unlike this chapter, for example, which seems to persist because your reader’s eyes constantly, without attending to it, refresh its image in the mind and because you may return to it in a different time and place). There is no “text” or recording in pure orality from which to recover the shape of the work. Moreover, when that shape is realized again, by the same or by another performer, it is significantly different. Despite these disjunctions, listeners have no difficulty in identifying and distinguishing particular works.

33. In the “pure literacy” of codexspace—I mean the, perhaps, unobtainable ideal of applied grammatology—the text performs silently, without necessary reference to a prior or an anticipated voice. What interaction there is takes place not in relation to an author, but with the text

itself, or rather with impressions of the text which are transferred into the textual life of the reader. The text itself does not change, although the way it is constructed and printed may indicate alternate reading strategies, and the random or indexed reordering of sub-elements may be possible. However, the most meaningful extension of the text occurs through the (unlimited) interpretative function of the reader (see 30 above), who may even experience the indication of alternate strategies—where they are enforced by the writer, designer, or programmer—as an unwarranted attempt to control or contain the reader's self-liberated pleasures of the text.

34. [But] pure literacy is an unrealized state in a culture which, although it can hardly (re)conceive of pure orality—despite its continued existence on the planet and despite the fact that it precedes our own internalized literacy—is nonetheless logocentric. Typically, written texts, where they do not explicitly transcribe—as in the earliest form of text-based performance, namely, plays, or in novelistic dialogue—imply speech or verbal performance. Paradoxically, such texts, which indicate a voice and often pretend to realize their (full) potential in ritual, voiced readings, are those which seem to preserve their authorial integrity, as their readers-turned-listeners maintain absolute decorum and silence in the auditorium—which may also be an imaginary auditorium, faithfully constructed by a silent reader for the poet's voice. In poetry, the impetus to perform is strong and, in contemporary culture, it grows stronger as we hear some of the most innovative writers turning to forms which, while based on experimental literacy, nonetheless achieve their most faithful representation in oral realizations. Thus, the fruitful, suggestive oxymoron of “performance writing” swims into view, recast and partially resolved in the strongly indicative phrase, “writing as performance.”

35. [Finally, in this brief and partial sketch,] cybertextual technologies offer a potential form of pure literacy with a—currently limited—capacity to, itself, perform. The performance of literary objects may be read back into both the pure literacy of the silent text and also into text-based performance writing, but cybertextual technologies already exist which, as mentioned above, animate the generation of procedural and chance modulated work in “real time.” Although there is a long way to go before such literary objects display any depth in their appropriation of, say, the less exploited terms in Aarseth's analysis of textuality, existing works have invoked dynamics, indeterminability, transience, random access, linking, reader configuration, and reader co-creation of textual elements.¹⁶ The potential for the interaction of literary objects with both readers and also the third term, programmers, is not closed, and will continue to problematize the role of the author, who may also be an interactive reader or programmer. In the last analysis, the meaning-creation of the work is provided by the performance of the literary object itself.

36. While the instances of interactivity offered by existing texts are currently extremely limited, it is important to remember that this need not

always be the case, and remark that the type of interactivity offered is different from that offered by, in particular, the (pure) literary art of codexspace and of text-based performance. The interactivity offered by pure orality was both what I will call catastrophic/judgmental (limited to the dismissal of the work, its rejection or forcible suppression—for example, stopping a speaker, “putting down” a book) and also cooperative/critical/co-creative. Bard and audience were able to develop a relationship—not one in which skill (even mastery) was necessarily in doubt, nor a sense of the “priority” of the impetus to produce verbal art, but one, nonetheless, which allowed the work to be significantly, meaningfully changed and, in exceptional circumstances, co-created. These possibilities, which are not typically or materially available to pure literary or text-based performance (where interaction is too often consigned to its catastrophic/judgmental mode) are not only accessible but, arguably, extended and radicalized in a cybertextuality where literary objects themselves both perform to their readers and are worked with by these readers as co-authors and co-programmers.

37. In this “late age of print,” writers are tantalized by the potentiality of programming (pro-writing) which may allow cooperative, co-creational interaction with their own works.¹⁷ This is a potentiality which is already some part of the experience of all readers and writers, but it has typically been seen as allied with the (radical, subversive, occasional) practices of writers who are, at times, characterized as “innovative.” If the language-based textualities of cyberspace are not drowned out in the coming audiovisual deluge, they promise to internalize a new, but (strangely, theoretically) familiar form of literacy for a much broader community of reader-writer-programmers.¹⁸