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## **"A RETROSPECTIVE SORT OF ARRANGEMENT": ULYSSES AND THE POETICS OF HYPERTEXTUALITY**

Hypertextuality is a term that we have come to associate with digital connectivity, hypertext and the computer revolution. It is also a term that has, in retrospect, be applied to James Joyce's *Ulysses*. Indeed, David Gold, in a detailed case study of the text, suggests that *Ulysses* is "the perfect hypertext subject."<sup>1</sup> Such a view assumes some kind of correspondence between *Ulysses* and the emergent electronic architecture of hypertext, an acknowledgment that *Ulysses* is somehow like hypertext. On the basis of this homology, *Ulysses* is seen to be eminently eligible for hypertextualisation. However, the relationship between a literary work such as *Ulysses* and electronic hypertext is a problematic one. While the nomenclature of hypertext and hypertextuality dates back to the late 1960s, it was for many years unknown to literary criticism. Nevertheless, its association with literature as a form of poetics can be traced back to those formative years of hypertext research and development. Ted Nelson, author of *Literary Machines* and originator of the term hypertext, had clearly defined it in 1965 as a literary phenomenon. The importance for *Ulysses* scholarship of thinking of the literary in machinic terms, and the broader logic of hypertextual poetics, will hopefully become apparent in this paper.

Two critical works on *Ulysses* published after 1965 stand out in terms of their sustained attempt to come to terms with qualities of its textuality that would, two decades later, be canonised as generic features of hypertext. These works, David Hayman's *Ulysses: The Mechanics of Meaning* (1970) and Hugh Kenner's *The Stoic Comedians* (1974), developed a number of key concepts that articulate a discontinuous textual poetics that clearly anticipated the paradigmatic non-linearity of hypertext theory in the 1990s. These works can also be said to have laid the foundations of a practice of Joycean hypertext criticism, of which this paper is itself an instance. However it is important to stress a caveat to do with any association of *Ulysses* with hypertext. It is by no means the case that with the vocabulary of hypertext and the computer network we have found a readymade critical language to apply to *Ulysses*, to reanimate it as an honorary hypertext.

It is actually more constructive to think of hypertextuality as a way of characterising textual behaviour: in other words, as a form of poetics. In this respect, the idea of a textual poetics, which we can call hypertextuality, is a more useful device for thinking about the relationship between *Ulysses* and hypertext culture. That said, it is nonetheless a term to be applied to *Ulysses* with great care. Hypertextuality can be defined as a timely formulation of a more general, theoretical approach to understanding the way certain kinds of texts work. Such texts, whether they be Michael Joyce's *Afternoon*, or James Joyce's *Ulysses*, actively foreground disjunctive structure, thematic multi-layering and a machinic tendency to generate prodigious systems of meaning that are in excess of the sum of its parts. Reading such texts is an indeterminate and highly differential process that frustrates any sense of an ending or closure. It is rather an intransitive sense of unending, the building up of a rich mosaic of understanding that develops over time through many re-readings. On the basis of such a theory it is clear that *Ulysses* is already hypertextual. It is therefore misleading to simply apply the term to it, as if the prefix "hyper" somehow endowed the work with qualities that we didn't think it possessed, or helped us to see more clearly those qualities that we knew about, but didn't have an adequate term for. A theory of the mechanics of disjunctive structure and meaning can be found in the work

of Kenner and Hayman well before hyper-terminology was in vogue. Even if they were aware of its currency in the rarefied circles of computer science, it would not have given them anything more resourceful to work with than they already had at their disposal. It can be argued, therefore, that both Kenner and Hayman had theorised, in advance, what would later be referred to as hypertextuality.

While published in 1974, Hugh Kenner's *The Stoic Comedians* was based on lectures originally presented between 1960 and 1962. Ostensibly a discussion of the work of Flaubert, Joyce and Beckett, the unifying theme in this work is actually the cultural technology of the printed book. Kenner's interest in the theme of "the book as book" stems, initially, from his fascination with the dynamics of encyclopaedism, of what the great book of knowledge makes feasible. A feat of organising, rather than understanding, it assembles thousands and thousands of solitary, fragmentary items into an exhaustive inventory of everything that we know.<sup>2</sup> "Nothing," Kenner asserts, "except when a cross-reference is provided, connects with or entails anything else".<sup>3</sup> The cross-reference, as a point of connection between discrete, spatially remote fragments in a large work, is an important figure, to which I will return. It is in *Ulysses* that Kenner finds a profound and extensive exploitation of this mechanism of connection between remote details. The collation and assemblage of specific details is active and dynamic and depends upon the very existence of the book as book, in which the reader can "turn to and fro."<sup>4</sup> The idiomatic simplicity of such a decisive formulation, turning to and fro between different parts of the text, is vital to an understanding of the complexity of *Ulysses'* textuality. It is another key figure to which I shall also return.

Kenner's attention to the book as a means of organising material "discontinuously in space rather than serially in time"<sup>5</sup> was also informed by a number of interrelated disciplines that, integrated in the work of John von Neumann, contributed to the development of the digital computer. Through a variety of direct and indirect invocations, Kenner evidences the aptness of number theory and cybernetics for his anatomy of *Ulysses* as a closed, generative system or feedback loop. In this Kenner is interested in the book as a machinic assemblage.

In *Ulysses: The Mechanics of Meaning* (originally published in 1970), Hayman also focuses on the technical structures of arrangement within the text, the linkages and points of connection between and within its different sections, different styles and overall fragmentary structure. Hayman is sensitive to the strangeness of *Ulysses*, noting that it "still defies definition, remaining open to each new reader and susceptible to new approaches."<sup>6</sup> Wanting to move beyond "stream of consciousness" and Homeric analogies as the epitome of Joyce's innovation, Hayman was interested in the paradoxical features of the text that tended towards systematic fragmentation and "a rage for order."<sup>7</sup> In focussing on this quality of the book as a quality to be properly analysed rather than criticised, Hayman noted that as the book becomes more difficult and fragmented, particular types of control over the material can be identified. His concept of the Arranger is one of the more memorable and decisive formulations of this work. It is, for Hayman, a figure of arrangement and organisation responsible for the forging of connections, cross-references and associations within its overall fragmentary structure.

In his "After Thoughts" to the 1982 reprint of the book, Hayman develops the concept further, referring to the Arranger as "a significant, felt absence in the text, an unstated but inescapable source of control."<sup>8</sup> Its centrality in cohering the disjunctive structure of the text is heightened, but so too is Hayman's sense of the dramatic, unprecedented dynamics of *Ulysses'* mechanics. It is apparent in his observations ten years down the track that what he had previously referred to as the text's "mechanics of meaning" were even more complex and strange, despite his articulate attempts to name and categorise them, largely through the Arranger. While the Arranger is reassuring to the struggling reader as a force of organisation and control, Hayman was in no doubt that with *Ulysses* we are dealing with a "strange new medium," an "unpredictable narrative space."<sup>9</sup> To attempt to name and describe this strange new medium, Hayman conjoined the grammatical notion of parataxis with textual disjuncture. His "paratactics" became a focal point for his ongoing study of the ways in which *Ulysses* operated dynamically and unstably as a perpetual interplay of disarray and order, in which gaps and absences of connection between remote elements are required to be filled by the reader, who becomes, in Hayman's words, a

"necessary and active, if sometimes unwilling, presence."<sup>10</sup>

Like Hayman, Kenner also took the concept of the Arranger further by developing an adjunct concept, the aesthetic of delay. In Joyce's use of the optical concept of parallax, Kenner found a means of explicating the temporal as well as spatial dimension of Joyce's method of cross-referencing, now referred to as a "network of coincidence" or "points of correlation."<sup>11</sup> Kenner sees in Joyce's manner of providing at least two versions of the same detail a parallax method, in which events are not merely repeated but intensified.<sup>12</sup> Kenner uses his discussion of parallax to account for more extensive points of connection between remote parts of the text to consolidate a radical portrait of the volatility and indeterminacy of Ulysses' textuality. The moment of epiphany, when all elements suddenly fit and cohere into a logical system of understanding, may or may not ever occur for any given reader. This is Joyce's aesthetic of delay; an indeterminate interplay of one detail now, one possibly later, one here, one possibly there. Kenner's theory of reading, like Hayman's, had by this stage of inquiry into "Joyce's strange book," located the reader as a collaborator, and the reading process as an unpredictable, Heisenbergian "symbiosis of observer with observed." It was this principle of creative unpredictability that, in Kenner's words, marked the "radiant novelty of Ulysses."<sup>13</sup> Hypertextuality is a term that has been appropriated to describe this novelty.

A number of common ideas to do with the textuality of Ulysses emerge from this summary of Kenner and Hayman. To recapitulate two central figures signposted earlier, both Kenner and Hayman are interested in the forging of relationships between different parts of the text. The notion of Ulysses as a kind of machinic assemblage that is built up, bit by bit, to and fro, from elaborate arrangements of its constituent parts, foregrounds a creative tension between the synchronic particularity of individual detail and the diachronic linking of details into systems of cross-reference. Ulysses works by systematically arranging a varied but finite lexicon of details into larger systems or networks of contiguity. The effects of recognition and recapitulation, the pleasure and surprise of encountering the same details again and again, contribute to the sense of patterning and orchestration. The concept of the Arranger is grounded in this interplay between local detail (the virtuoso, graphic treatment of individual words and phrases) and remote cross-reference (the self-conscious recollection of earlier parts of the book, often signalled by the repetition of specific words).

In this respect we can describe the synchronic/diachronic patterning between different parts of the book as vectoral. I am invoking the term here as it has been used in recent media theory to describe the effects of technologies of distance, their ability to construct complex and intimate relationships of communication between remote participants. The thematic cross-reference is a vectoral event, an exchange or link between the local and remote, immediate and mediated objects of narration. For example, think of the way in which Bloom's whereabouts are located at the start of "Wandering Rocks." On page 291 of the 1960 Random House edition, our immediate context is Thornton's, where we find Boylan flirting with the assistant and buying fruit for Molly. The Arranger intrudes with a mediated glimpse of a remote "darkbacked figure" scanning books under Merchants' arch (U 291). Eight pages on, Lenehan and McCoy pass under Merchants' arch, having just referred indirectly to Bloom, before espying him scanning books. The identical phrasing ("A darkbacked figure scanned books") suggests, in turn, that Lenehan and McCoy were also passing under Merchants' arch, but not identified, at the time of the previous sighting of Bloom. So much for the idea of print as a linear medium. Two pages on we are introduced to Bloom on his own terms as an immediate object of narration, turning "over idly pages of The Awful Disclosures of Maria Monk, then of Aristotle's Masterpiece" (U 302). It is therefore inappropriate to speak of events occurring one after the other in these episodes, in the linear, concatenated Forsterian manner of "and then, and then." It is more appropriate to describe the vectoral cross-links in terms of syncopation, of "elsewhere and elsewhere." What we experience as synchronicities are non-linear instances of convergence and juxtaposition, links within a discontinuous narrative space.

The idea of Ulysses as a kind of "grammar for being elsewhere" (to borrow Porter Abbott's phrase)<sup>14</sup> hopefully demonstrates why it has proven to be so attractive to hypertext theorists as a precursor to a theory of hypertextual poetics. I hope it also

reveals how easy it has been to simply endow Ulysses with the nomenclature of hypermedia. I have deliberately introduced some of the defining terminology of hypertext theory in the preceding discussion of "Wandering Rocks" and "Sirens" to show that while such terms will work in the context of a discussion of Ulysses, they work by substitution. The conceptual frameworks of Kenner and Hayman are perfectly adequate for accounting for the unprecedented complexity of Ulysses' textuality. While it could be argued that they were, in fact, inventing a theory of hypertextuality, we need to remember that the "hyper" paradigm has a historical context, one largely associated with the last decade of the twentieth century. What is more important to stress is that both Hayman and Kenner intuited that the kind of approach they were taking to Ulysses was likely to precipitate new critical approaches to the text. If hypertextuality is an example of such an approach, and it is, it does not follow that it is a superior or more accurate one. In fact, as parallels between the truisms of hypertext theory and their parallactic/paratactic precursor suggests, there is a remarkable degree of conceptual overlap.

In his case study of Ulysses, David Gold, in attempting to define hypertext, cites the following quotation:

A hypertext system is one in which links may be specified between different places in the text. Whereas books do offer a primitive sort of linking process (in that notes may refer to footnotes, which may refer the reader to further texts), a computer-based system, which is what we are interested in for the purposes of this inquiry, takes the reader or user directly to the linked material, or, if you prefer, brings the linked material to the reader.<sup>15</sup>

Gold's "simple working" definition of the mechanics of hypertext, as a spatial environment contoured by links between different places in the text, is indicative, in a fundamental way, of some of the axiomatic descriptions of hypertext:

George Landow: Hypertext [...] denotes text composed of blocks of text [...] and the electronic links that join them.<sup>16</sup>

Ben Shneiderman: a database that has active cross-references and allows the reader to 'jump' to other parts of the database as desired.<sup>17</sup>

Jakob Nielsen: hypertext consists of interlinked pieces of text (or other information).<sup>18</sup>

The vectoral relationship between local detail and remote cross-reference that I have generalised from the work of Hayman and Kenner, is clearly the defining structure of hypertext. Jakob Nielsen's now canonical, diadic structure of node and link encompasses the idea that a network of linked information in a hypertext is based upon a vectoral relationship between an immediate node and ensembles of other nodes elsewhere.<sup>19</sup> The link is the pointer or indicator of cross-reference between local and remote nodes. It is, as Steven Johnson has noted in his *Interface Culture*, "a way of drawing connections between things, a way of forging semantic relationships."<sup>20</sup> In Joycean textuality, it is alterity within thematic and metaphoric systems of reference that constitutes the link that points to connections to be made elsewhere. One example, noted by Kenner in this very context in *The Stoic Comedians*, will suffice to make the general point.<sup>21</sup> Virtually at the commencement of the text, Stephen, prompted by a remark of Mulligan's, recalls the incident of an Oxford ragging:

Shouts from the open window startling evening in the quadrangle. A deaf gardener, aproned, masked with Matthew Arnold's face, pushes his mower on the sombre lawn watching narrowly the dancing motes of grasshalsms. [U 7]

Elsewhere, a full four hundred and eighty-seven pages elsewhere, in the phantasmagoria of 'Circe,' we encounter Philip Drunk and Philip Sober, "two Oxford dons [...] masked with Mathew Arnold's face" (U 635). Both have lawnmowers that purr "with a rigadoon of grasshalsms" (U 635).

Issues to do with interactivity, non-linearity, and retrospective backtracking all stem from this fundamental, vectoral configuration of textual behaviour. For Joyce such concepts were implicit in his inventive strategy of "applied Aquinas." In particular, the principle of consonantia, the exact interrelation of parts within the whole, motivated the momentous potential in the text for cross-reference, incidence and coincidence.<sup>22</sup> In electronic hypertexts, such qualities are endemic to connectivity

and the fluidity of digital code. What is striking, however, is the degree of conspicuous overlap in relation to the way such texts are read. Kenner, for instance, observes how we "reread in quest of patterns, finding them aplenty, largely created by ourselves from selective observation of cues, often cues planted by Joyce."<sup>23</sup> Jay Bolter, in his *Writing Space*, notes of the hypertext experience: "In general, the reader of an electronic text is made aware of the author's simultaneous presence in and absence from the text, because the reader is constantly confronting structural choices established by the author."<sup>24</sup>

We can, perhaps, in retrospect, even credit Kenner with inventing the locutions of interactive criticism most frequently associated with works such as *Afternoon*. Of *Ulysses* he observes:

Its universe is Einsteinian, non-simultaneous, internally consistent but never to be grasped in one act of apprehension: not only because the details are so numerous but also because their pertinent interconnections are more numerous still.<sup>25</sup>

What I have hopefully achieved in demonstrating here is that our reading of hypertext, our navigation of hypertextuality, is not so much a novel, but rather a familiar experience. The complex textuality of *Ulysses*, which depends upon the technology of the printed book, has prepared us for the hypertextual poetics of nodal screens. Espen Aarseth, in his *Cybertext. Perspectives on Ergodic Literature* (1997), reinforces the principle that hypertextuality is not a quality endemic to the computer but a form of textual behaviour, a poetics forged out of the tradition of print technology. Furthermore, Aarseth convincingly argues that we need to move beyond the clichés of linear book and non-linear hypertext. Instead, he proposes a broad media category, "cybertext," as a "perspective on all forms of textuality"<sup>26</sup> that require an interactive, combinative approach to reading, which he describes as "ergodic."

One of the greatest textual precursors of the hypertextual, Jorge-Luis Borges, described Joyce as "the intricate and near-infinite Irishman who wove *Ulysses*."<sup>27</sup> We would do well to remember that this weaving was done in a classical temper and was far from hyper. Joyce's text is what hypertext wants to be, "proteiform yet bounded,"<sup>28</sup> bounded yet proteiform.

\*A version of this essay was presented at the XV11th International James Joyce Symposium, Goldsmith's College, London, June, 2000.

## NOTES

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- 3 Kenner, *The Stoic Comedians*, 3.
- 4 Kenner, *The Stoic Comedians*, 34
- 5 Kenner, *The Stoic Comedians*, 41
- 6 David Hayman, *Ulysses. The Mechanics of Meaning* (Madison, University of Wisconsin Press, 1980; revised and expanded edition of the original 1970 text): 11.
- 7 Hayman, *Ulysses: The Mechanics of Meaning*, 83.
- 8 Hayman, *Ulysses: The Mechanics of Meaning*, 122.
- 9 Hayman, *Ulysses: The Mechanics of Meaning*, 124.
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- 11 Kenner, *The Stoic Comedians*, 75; 79.
- 12 Kenner, *The Stoic Comedians*, 76.
- 13 Kenner, *The Stoic Comedians*, 154.
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- 19 Nielsen, *Hypertext and Hypermedia*, 2
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- 22 Kenner, *The Stoic Comedians*, 60.
- 23 Hugh Kenner, *Ulysses* (London: Allen & Unwin, 1980): 155
- 24 Bolter, *Writing Space* (1991): 30.
- 25 Kenner, *Ulysses*, 81.
- 26 Espen Aarseth, *Cybertext. Perspectives on Ergodic Literature* (Baltimore, Johns Hopkins University Press, 1997): 18.
- 27 Borges, 1999, 393.
- 28 Kenner, *Ulysses*, 173.

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