

GENETIC INROADS INTO THE ART OF JAMES JOYCE

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Seeing James Joyce's *Ulysses* into the Digital Age:

Forty Years of Steering an Edition Through Turbulences of Scholarship and Reception

The Edition

Foundations

A post-doctoral fellowship from the Harkness Foundation in New York enabled me, from the autumn of 1968 to early spring 1970, to learn the ropes of textual criticism and bibliography in Charlottesville, Virginia, the Anglo-American way. On its own terms, the discipline's name was pleonastic in those days: textual criticism was bibliography; bibliography was textual criticism. Textual criticism as a foundational discipline in the humanities had, over centuries, developed procedures to explore the transmissions of texts through and across documents. On the age-old assumption that transmission must inevitably disintegrate texts and produce error, different document texts were compared: they were collated. They would vary, sometimes less, sometimes more, in their readings. By patterns of error, the less disintegrative—less 'corrupt'—document text was singled out to provide the basis for a given edition.

In the twentieth century, bibliography brought further refinement to the identification of errors in transmission. Bibliography used to be understood as a set of techniques to explore the history of books as

artifacts. It was now harnessed to analyse the typesetting and printing of the text contents of books. Still predicated on the concept of error, bibliographical analysis encouraged inferences about what types of errors the printing-house workmen were prone to make and, therefore, how reliably or unreliably they could be assumed to have transmitted specific readings in a specific document text. Where changes between one document text and the next could not be discredited as errors, they were critically decreed to be revisions attributable to redactors or authors themselves. The assessments informed the selection of the so-called 'copy text'. An edition text was established by correcting the copy-text by readings from other text instantiations; and in particular by grafting authors' revisions from later-than-copy-text editions onto a first-version text itself. Just how to proceed in modifying a copy text into an edited text was specifically governed, moreover, by a methodology under one overriding axiom: namely, by evidence or inference, in an edition text to fulfil the author's intention. The editions so established were 'critically eclectic editions'.¹

Or so they were hailed within Anglo-American textual scholarship. From the vantage point of textual criticism and editing outside the Anglo-American province, they were seen, and rejected, as contaminated editions. It was held against them as unsound, in an edited text to mix readings from historically distinct document texts, let alone from distinct authorial versions. Rather, an edition text, while by definition edited, should still essentially represent one historically identifiable document text, purged only of irrefutable errors of transmission (scribal slips, typos, and such). In terms of nomenclature, and in contrast to 'critically eclectic editions', German textual criticism and editing yielded 'historical-critical editions', true to the historical moment of, say, a given document text's first publication, or its later revised edition—perhaps 'at the author's last hand' ('Ausgaben letzter Hand' as they were called in German).²

1 I critique the methodology in some detail in 'Beyond Author-Centricity in Scholarly Editing', https://books.openbookpublishers.com/10.11647/obp.0120/ch8.html#_idTextAnchor023

2 A representative collection of German essays on editorial theory translated into English may be found in *Contemporary German Editorial Theory*, ed. by Hans Walter Gabler, with George Bornstein and Gillian Borland (Ann Arbor: University of Michigan Press), 1995.

'Historical' was the buzzword for German textual criticism and editing from its emergence in the nineteenth century onward. The historical perspective on transmissions carried the germ of a genetic awareness. By about the middle of the twentieth century, manuscript editions—'Handschrifteneditionen'—began to establish themselves as a distinct sub-genre of scholarly editions. Interest developed in writer's workshop materials, and solutions were sought to capture from them, and editorially to present, texts in progress. These advances were as yet experimental and, to begin with, without a critical, let alone a theoretical, grasp of the implications of textual variation.

It fell to French *critique génétique* in the final decades of the twentieth century to establish a critical discourse and a framework of theory by which to engage with writing in its temporal dimension. The genetic approach to texts assumes *a priori* that it is in the nature of texts to be variant. The materialisation of text takes place in acts of writing. A text will, in the continuous progress of being written, respond to itself with variation. Its modifications commonly spring from the creative energy invested in the thought process of revisional writing. Hence, writing is dialogic, and variants are the written traces of the dialogue. The sustained interaction of composing and revising is the engine (as it were) that drives the process of text formation, and of transforming text further into variants of—or against—itself.

The writing traces in drafts and follow-up documents constitute the subject matter of genetic criticism.³ Genetic criticism, in its turn, opens up the genetic dimension of textual criticism. From the traces and disposition of the writing in a manuscript may be elicited the sequences of writing, and behind them might become interpretable the thought processes that were the impulses for that writing itself. In terms of documents of origin, it has become the basic challenge of genetic editing to edit what the documents witness not merely as sequentially readable text, but comprehensively, with justice given to the spatial disposition of the writing and the diachronic depth of the text. In terms of sequences of transmission through documents, the challenge widens because editing, genetically conceived, aims at capturing not merely the result of variation, but its dynamic movement. Thus, genetic editing seeks to

3 *Genetic Criticism. Texts and Avant-Textes*, ed. by Jed Deppman, Daniel Ferrer, and Michael Groden (Philadelphia: University of Pennsylvania Press, 2004).

transform the theoretical tenets and critical stance of *critique génétique*—genetic criticism—into innovative editorial practice: that is, to edit texts in progress.

This has deeper consequences still, both in theory and in pragmatics. The analytical exercise of textual criticism is founded no longer on the concept of ‘error’. Its fulcrum is the variant. Nonetheless, because transmissions have always, and will always, involve what goes by the age-old term of ‘textual corruption’, the identification and elimination of error admittedly remains a necessary text-critical and editorial task. Yet a wider view of the nature of transmissions recognises ‘error’ as a sub-class (undesirable, it is true) of variation that, comprehensively, carries the textual movement. Committed to enabling the experience of that movement, the editorial endeavour shifts its theoretical stance. Above all, it ceases to aim for the stable and closed text. As its attention is focused on the text in progress, its frame of perception becomes critical throughout. Critical in nature, genetically oriented textual criticism and genetic editing thus form a twin discipline focused on the intelligibility of textual variation rooted in the dynamic variability of language.

The renewed perspective must ultimately, too, lead to procedural consequences. To recognise the potential inherent in genetic criticism and genetically oriented textual criticism means to redefine and reconceive the medium in which the scholarly edition, and radically so the genetic scholarly edition, takes shape and takes place. This should no longer—and for the genetic edition it categorically cannot—be paper and the book. Material carriers were the traditional medium for preserving and presenting texts in their linearly sequenced two-dimensionality for reading. Accepting the conceptual challenge of the three-dimensionality of writing—of ‘texting’—and the temporal (i.e., fourth) dimension inferable from its overwritings, logically necessitates embracing the digital medium for the scholarly edition. Only the digital medium is capable of registering, selecting, and visualising at will the multi-dimensionality of text and texts in progress, as well as the multiple cross-relations among the several correlated discourses (introductions, apparatuses, commentaries, multi-faceted auxiliary information, and adduction of thought) that a fully fledged scholarly edition comprises, and will in the future comprise.⁴

4 See, for instance, my essay ‘Theorising the Digital Scholarly Edition’, https://books.openbookpublishers.com/10.11647/obp.0120/ch6.html#_idTextAnchor018

Ulysses: Candidate for an Edition

Midway through the years of reconceptualising textual and editorial scholarship as we understand the twin discipline today, James Joyce's *Ulysses* reached a crossroads. On its course from an author's novel in his time for the contemporary reader to a canonised literary text, it sought confirmation of its heritage quality: it reached out to be edited. In the 1970s, concerns grew loud in Joyce circles about how unreliable Joyce's texts were. The debates ran high and there was much uncertainty about what could be done about the situation. At the International James Joyce Symposium in Dublin in 1973, for instance, it was proposed, in all seriousness, to collect suggestions for text corrections and emendations for *Ulysses* and to set up a committee to arbitrate what to accept or reject. I listened with amazement to this cheerful proclamation of dilettantism. Home in Germany again after my US initiation into bibliography and textual criticism, I had begun to acquaint myself also with German editorial scholarship. I began to familiarise myself with the preserved documents carrying the written traces of the origin and growth of the text for the first edition of *Ulysses* of 1922. The nature of the materials suggested that a combination of Anglo-American and German approaches might be suited to penetrating and offering solutions for the novel's textual problems. Would a scholarly edition of and for *Ulysses* succeed within such a wider methodological framework?

With the first edition of 1922, Joyce made *Ulysses* public as a work of literature. The pre-publication documents and the successive states of their texts, however, brought to light rich evidence of multiple and variegated text slippages on the path to publication. As the book it resulted in, the first edition was very much what Joyce intended—and urged that it be published on 2 February, his fortieth birthday. The printing house, Darantiere in Dijon, complied by entrusting the first two copies to the driver of the night train to Paris, to be handed to Joyce first thing in the morning. But from a text-critical perspective, serious doubts arose from the pre-publication documents that the book's text was in every nuance of wording and phrasing Joyce's text for *Ulysses*, the work. The publisher's apology on the title-page verso, re-worded and given its rhythmical flow, as the proofs reveal, by James Joyce himself, denies point-blank that the book presents us in every particular its author's text

for *Ulysses*: 'The publisher asks the reader's indulgence for typographical errors unavoidable in the exceptional circumstances.'

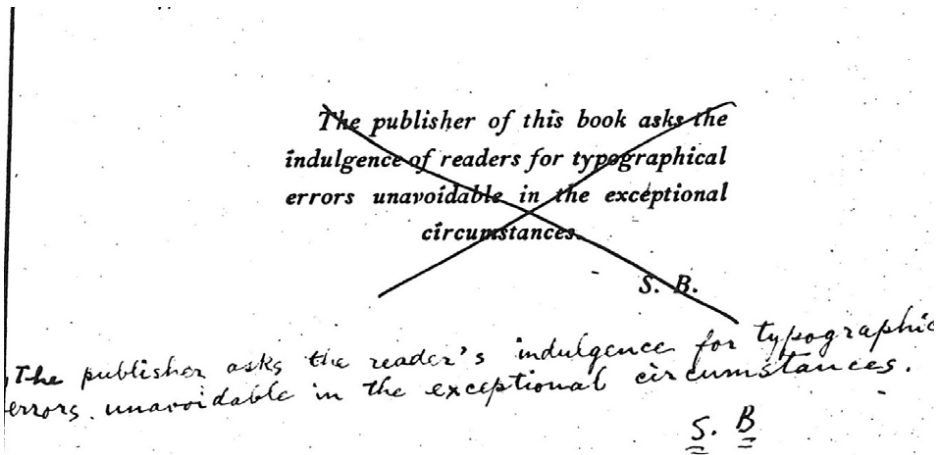


Fig. 5.1: James Joyce Archive 27, p. 305

Typographical errors? Surviving partial lists of amendments were drawn up by Joyce and assorted amanuenses over the years between 1922 and 1926, when the novel was typeset afresh and published in a second edition. These lists draw attention to a multitude of misprints that, though irritating and annoying, are by and large trivial, because they are commonly self-corrective. Yet in-depth textual scrutiny reveals that the phrase 'typographical errors' does not, by a long way, cover the range and diverse nature of the departures in the first edition's published text from the text James Joyce progressively wrote for *Ulysses*. Joyce's expressed awareness of textual blemishes in the first edition were the proverbial tip of the iceberg of a complex process of composition, revision and corruption in transmission through the pre-publication documents leading to the publication of *Ulysses* in its first-edition printing.

The Writing and the Documents

The writing of *Ulysses* in Joyce's own hand began with seminal note-taking and proceeded through successive first and intermediate drafts into final drafts and fair copy. Helpers, mostly amateur, prepared typescripts for the individual chapters (episodes) from either their

final drafts or their fair copies. For about half the chapters, the fair-copy version in the Rosenbach manuscript is the direct ancestor of the typescript text; for the other half, the fair copy is the typescript's collateral sibling: that is, for these chapters, the fair-copy text and the typescript text radiate from a common source text in documents since lost. The collateral relationship of the document texts in fair copy and typescript for this group of episodes can be determined by critically analysing the text differences between these two document texts—a regular case of analytic investigation in the mode of textual bibliography.

The typescripts came commonly in triplicate as one top and two carbon copies. Joyce instantly overwrote them with changes and more text. From the overwritten typescripts, the text passed into print. First, in 1919 to 1920, one typescript exemplar provided copy for the publication in instalments of thirteen chapters (and the beginning of the fourteenth) in the Chicago magazine *The Little Review*. This typescript exemplar is no longer extant. Then, from mid-1921 to January 1922, another exemplar, now eked out to comprise the full run of the chapters, provided copy for the printer Darantiere in Dijon whom Sylvia Beach, a bookseller in Paris, had entrusted with manufacturing the book under her imprint—total lay woman though she was as a publisher undertaking such an enterprise. For Chapters 1 to 14, Darantiere's printer's-copy exemplar carried most, but not all, of the revisions made in the typescript exemplar used for the *Little Review* pre-publication. The *Little Review*'s printed text reveals that the journal's printer's copy must have contained a few changes unique to that (lost) typescript exemplar. Occasionally, too, revisions in the *Little Review* from its printer's copy were differently worded from corresponding entries in Darantiere's printer's copy; this exemplar of the typescript was, in addition, studded with further overwritings evidently entered before it was handed over for typesetting in 1921. The autograph changes to Chapters 15 to 18 in Darantiere's typescript exemplar are self-evidently first-time overwritings. Notably, however, these latter chapter units are intermittently mixed from (sometimes several) retypings. Where this is the case, the differences observable between the state of the text in the Rosenbach manuscript and the extant typed text, if not simply mistypings, are variants originating, as must be presumed, as overwritings on an earlier typing attempt discarded when retyped.

One would have thought, and Darantiere presumably thought, that his printer's copy, compositely comprising basic typing and autograph additions, constituted the author's considered final text. But this was not so in Joyce's view. Seeing his text as developed to the fair-copy/ typescript stage then transposed into book print seems, on the contrary, to have acted as a stimulus to continued composition and revision. The proofs with their ample white space held out just too much temptation for further writing.

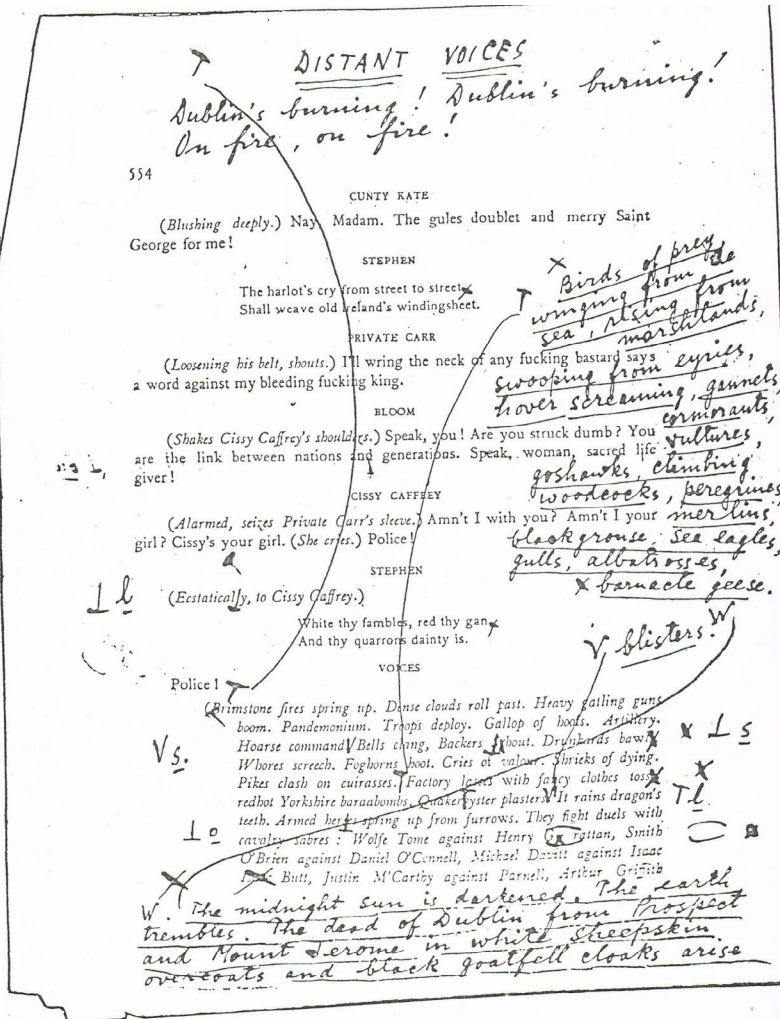


Fig. 5.2: James Joyce Archive 26, p. 304

Consequently, first the *placards*—i.e., ‘galleys-in-page’, meaning sheets on which eight typepages were lined up on one side only—and subsequently the successive sixteen-page gatherings were repeatedly sent back and returned, on occasion up to ten or twelve times, before they were approved for printing. Measuring the difference in sheer extension between the fair-copy (or near-fair-copy) manuscript of the eighteen *Ulysses* episodes and the book reveals an increase of text of about one third. What is essential to note is that not only is the holograph fair copy by definition Joyce’s, but that all the overwriting in the typescripts and proofs are also in his hand. The entire text that James Joyce wrote for *Ulysses*, both as fair copy and thereafter as overwriting into the successive documents of the pre-publication transmission, exists thus literally, because materially, in autograph.

This document situation provides rich evidence of the processes of writing *Ulysses*. At its core, it shows two things: on the one hand, indeed, the multiple and variegated text slippages on the path to publication already mentioned; yet on the other hand, the creative and dialogic process of the writing itself. The identification of the text slippages serves the textual critic and editor in their efforts to bring into focus the authentic text for the book, at the point in time it was published, to represent *Ulysses*, the work. The material evidence for the text in its continuous process of variation, in contrast, supports the critic delving into the diachronic depths, into the text’s development within the entire compass of the author’s labour of composition and revision.

Considerations of Method and Procedure

It will be apparent how the full range of methods of textual criticism and editing initially sketched out in this essay should prove applicable to the path *Ulysses* took through its pre-publication documents toward publication in its first edition. Common copy-text editing practices, standard according to Anglo-American methodology, seem at best clumsy to handle the matter. Choosing, say, the fair-copy text as copy text would be thoroughly impractical. It would lead absurdly to treating all text variation and extension intervening between the fair copy and the first edition in a mode of emendation. Nor would the first-edition text be eligible as copy-text. To attend editorially to its ‘typographical

errors' as earmarked in the correction lists to the first edition would, of course, be easy, but it would be superficially corrective only. What, furthermore, would stand in the way of copy-text editing on the basis of the first edition are the first-edition divergences from the text as Joyce actually wrote it in the pre-publication documents. These divergences would need reversing by emending the copy text, but copy-text editing as a method offers no rule for handling even just the pragmatics of bringing pre-copy-text readings to bear on a copy text. The authentic Joycean readings for consideration as emendations to the first-edition text if used as copy text are spread over multiple documents; these documents all precede the first edition; and, still more problematically, they do so at an increasing reverse distance from the first edition. Pragmatics aside, copy-text editing as a fundamental mode and method of editing is founded on a concept of closure, of text as product, not as process. By definition it focuses exclusively on the final result of text writing. This would mean that an edition of *Ulysses* established on and from the first-edition text, while of course rightly accepting and confirming all Joycean text that successfully arrived intact in the first edition, would be systemically, and so quite radically, at a loss for how to make evident and analysable all progressive writing that preceded the first-edition text. On the very grounds of its preconceived method, such an edition would most likely elide, and keep silent about, the creative dynamics of the writing of *Ulysses*. Yet how could a scholarly edition in our age justify not making the genetic dimension of the text for *Ulysses* accessible to critical scrutiny?

Once the unfolding of the processuality of the text writing for *Ulysses* is perceived and accepted as an overriding demand on text-critical analysis and editorial skill of method and presentation, the fact that the evidence of the writing process is spread over multiple documents need not faze the editor. For me, it was the genetically oriented mindset of German textual scholarship and editing that helped me, initially, to deal with the situation. The solution was to build, from all the text, and all the text overlay across the real documents of the pre-publication transmission, a continuous text collocation as if inscribed on one imaginary manuscript. That text collocation was 'stratified': that is, it was genetically layered. In assembling the several document texts and their respective overlays to merge them into the heuristic construct of the one imaginary manuscript

text, we differentiated the successive layers and overlays according to their document source. Each layer and overlay was 'earmarked': that is, it was given a unique markup tag indexing its provenance (pointing to the document witnessing it). The ruling distinction between 'layer' and 'overlay' is this: 'layer' = base text as inscribed on its document of original entry; 'overlay' = overwritings over the base text in the given document of entry. This implies an understanding that text carried forward identically through several successive documents is and remains, always, text of its document of first inscription. Its multiple identical copying through successive documents is seen as redundantly accidental. For the collocation of the continuous manuscript, its layering was distinguished and indexed through markup—just as would be the case with an author's real working manuscript multiply worked over. The layering from the several revision campaigns that went over such a manuscript would, in a digital transcription, be indicated through markup in just the same manner.⁵

Contiguously layered, the imaginary manuscript's text was, in essence, continuous, but it was as such a raw text, a heuristic construct. It was not yet an edited text. Yet it held a double potential for editing: it could be, and was, developed toward two separate targets. One target, yet by the edition's overall concept its secondary one, was indeed the customary 'end product' of scholarly editing: an established reading text,

5 The notion that 'text carried forward identically through several successive documents is and remains always the text of its document of first inscription' has important corollaries. It implies that what is text of a given document is only what is originally and uniquely written on it, not also what it repeats identically from its document predecessors. A given proof, for instance, is 'witness', in the traditional sense of the term in editorial scholarship, only to the autograph deletions, changes, and additions inscribed on it. The textual layer for which these deletions, changes, and additions are constitutive—that is to say, *become* constitutive—is materially in evidence in the typesetting of the proof following. In a conceptual sense, therefore, the fresh textual layer that the autograph interventions on their proof document of origin generate is constituted (hidden in the wings, so to speak) between their proof document of origin and the proof document on which they appear as integrated into the typesetting of that (follow-up) document. The theoretical significance of this distinction is the logical separation of document and text. In our cultural environment of writing and reading, texts and their carrier documents form a symbiosis—leaving oral transmission aside, we cannot pragmatically receive and experience texts other than through and from documents. Yet logically, text and document are distinct and separable entities. Otherwise, texts could not be materially transmitted through series of documents, nor could, for example, the imaginary continuous manuscript of *Ulysses* I posit be conceived of.

that is, its editor's proposition of a reliable text (as the term goes) for the titular work. The other and, in fact, primary target was the presentation of the development from fair copy to first edition of James Joyce's text for *Ulysses*. The raw-text assembly and markup of the continuous manuscript allowed us to generate a synopsis of the text development in and across the documents in which it was successively in evidence. It was this synoptic text presentation that was to constitute the edition's true core: an edition text both genetically fully stratified and critically established. Achieved, it was eventually laid out on the left-hand pages of the edition in book form. From this was to be derived—to be filtered out by what today would be called 'style-sheets'—what the edition proposes as its reading text. This runs parallel to the presentation of the edition text, and face to face with it, on the right-hand pages in *Ulysses*. *A Critical and Synoptic Edition* of 1984.⁶

Harnessing the Computer

The 1984 publication came as book in three volumes. Yet over the seven years it took me and my team to prepare and build the edition, we realised it from scratch with computer assistance. All original data representing Joyce's writing and text, as well as all auxiliary data of our own making and configuration were, over seven years, computer-inputted, computer-organised and multiply processed, and at the conclusion, digitally archived. The book volumes were generated entirely by computer typesetting from the processed data. From today's perspective, it seems a paradox to have worked on an edition entirely with computer assistance and then nonetheless to have published it in physical book form. However, considering the matter historically, to rely on computer assistance in scholarly editing was something thoroughly new in the late 1970s/early 1980s. A working environment other than transcriptions and notes on paper, and eventually the physical book as the output, was then unimaginable. No digital format was at the time deployable either to store or to access a product of scholarship of the complexity of an edition. This means that our edition was not, or could

6 James Joyce, *Ulysses*. *A Critical and Synoptic Edition*, prepared by Hans Walter Gabler with Wolfhard Steppe and Claus Melchior, 3 vols. (New York: Garland Publishing, 1984; 21986).

not yet have become, what today we are on the way to conceiving of as a digital edition.

Harnessing the computer was something new and, more importantly, innovative. It was so, moreover, only accidentally because of the technical requirements of easing the text-critical and editorial work. Where it became essentially innovative was in multiply reconsidering the very object of the edition—its text and text elements—and equally so in re-thinking the trajectories and efficiency of editorial workflows. This amounted, at times, even to discarding age-old stages of editorial procedure altogether.

'Preparatory to anything else' (*U* 16, 1) came, encompassingly, the task of inputting the text to render it machine-readable. Digital scanning of typed or printed text was at the time not an option; scanning handwriting was absolutely out of the question. The way to go was to transcribe the text—essentially just as had been done in editorial work through the ages. To transcribe text into a machine-readable format was new, however. It meant to type it on an electric typewriter with a golf-ball writing head studded with OCR characters—characters as they were used in the banking business for capturing data from checks and the like by means of scanning devices specialised to read and digitally convert the typed script. The OCR golf-ball printed uppercase lettering only. Hence, in the transcription, letters intended as uppercase had to be individually tagged in order to remain uppercase when the digital conversion of the OCR transcript was converted into raw data for the edition.

But how then were our own mistypings in the course of the transcription to be detected? A traditional editorial workflow would, on completion of a transcription, have scheduled time for manual proofreading. Resorting to computer assistance, however, meant essentially leaving behind proofreading by hand and eye for good. We were extremely lucky to be able to use a system of text-processing routines, TUSTEP, developed in Tübingen, Germany in the 1970s and consolidated over the years since, and further refined by user requests, including ours. Quite simply: we would have been unable to realise the project without the TUSTEP toolkit. Thus, it was right from the outset that the TUSTEP collation routine, interlinked with an updating routine procedurally cog-wheeled into it, was deployed for proofreading and correcting the initial text input.

Our first raw-text input was the text of the first edition. As already discussed, this was not intended to serve as the edition's copy-text. However, and despite all its textual errors, it provided the most comprehensive reference base. It comprised all of Joyce's text that had 'made it' through to the first edition, and provided also the structure of the pagination and line-fall of the first edition as book. Against this base, the edition text could be assembled through the subsequent computer-aided workflow. Of course, the typed transcription could not be expected to be 'letter-perfect'. If, as noted, eye-and-hand collation was ruled out, a second full transcript was needed against which to machine-collate the first. Hence, we also typed and OCR-inputted the second edition of *Ulysses* as reset and published in 1926. This seeming redundancy of input paid off as the basis for machine-collation-supported proofreading. The TUSTEP collation identified every difference between the two inputs. So computer-assisted, human-intelligence proofing quite simply amounted to checking divergent readings against the original texts. Either their difference was genuine because the texts in the respective editions differed, or they differed due to faulty transcription in one input text or the other. In these instances, the transcription error was corrected—but not by hand. Instead, the amendments earmarked were fed as a set of correction instructions into the ensuing TUSTEP update routines to obtain corrected text files of both the first and the second *Ulysses* editions.

Collation—the comparison of two document texts for their identities and differences—has always been the opening move in textual criticism and editing. In the manuscript- and print-based environment of transmissions, it meant comparing by eye and hand texts inscribed in their carrier documents and compiling lists of their differences. No text transcription preceded such conventional first collations. In our computer-assisted work toward the *Ulysses* edition, however, the fact that transcription took first place in the workflow necessitated, as described, a preliminary round of automatic collation to verify our input. Only then could we proceed to successive collatings of the digital text records as the established representatives they now were of the material document texts. Thus, in our workflow, the mode of collation, which conventionally used to be the first phase of text-critical labour, came second. However, from our procedure we had already gained a significant spin-off. Storing our initial, verified transcriptions

of the cornerstone document texts electronically meant securing them letter- and punctuation-perfect once and for all. Such spin-off repeated itself through all subsequent, collation-supported steps in the editorial workflow. It rendered ultimately redundant, too, the grand final proof-reading campaigns characteristic of editorial projects in print.

The Building of a Continuous Manuscript Text

To establish the edition comprehensively in the digital medium and environment, we progressively eked out our digital input of document texts, stored in separate files. Firstly, these comprised, together with the fair-copy text and the 1922 first-edition text, the *Ulysses* text materialised in the typescripts and the instalment texts from *The Little Review*. These, as will be explained shortly, were to be fused into the heuristic construct of an 'early-version' text. Secondly, over and above the text of the reset 1926 edition text that we had transcribed and input at the project's start, we stored digitally the texts from the 1932 Hamburg edition, the 1934 Random House (New York) edition, the 1936/37 private and public Bodley Head (London) editions, and the 1961 Random House (New York) edition. This latter sequence of text instantiations for *Ulysses* was intended for supplementary reference in the course of establishing the edition text and, at the conclusion of the project, to enable the collocation of the historical collation.

The advantages of computer assistance perhaps made themselves most significantly felt in realising the edition's conceptual centre: the building of a continuous text collocation as if inscribed on one imaginary manuscript. To this end, what we established first was the stepping-platform of an 'early-version' *Ulysses*. We constructed it as a heuristic counterpart to the *Little Review* serialisation by merging into one digital file the fair copy text and the typescript text as typed, together with its first overlay. We checked this merger against the *Little Review* pre-publication text in order to catch all first overlay in its (lost) printer's copy. The 'early-version' *Ulysses* already carried the markup for the phases of the text progression it covered. This construct became the point of departure from which we sought to encompass the subsequent text changes and accretions towards the first edition. Its formal counter-mooring was the computer-stored and verified first-edition text. This we

cloned into a copy of itself, designated to become the digital basis of the continuous text collocation as if inscribed on one imaginary manuscript.

Computer-collating the early-version construct against this first-edition clone yielded as output every element of change and accretion beyond the early version. Predictably, the output revealed errors for correction in the first-edition printing against the early-version text. Where nothing else was called for than putting right something that, untouched by revision, should never have gone wrong, the respective list entries in the collation result were tagged for updating. The main cull of variation from the collation of the early-version construct against this first-edition clone was, of course, an accumulated assembly of all revision and augmentation elements as they extended from the second overlay to the typescript to the final overlay in the respective last proofs. What this accumulation lacked was a markup stratifying the writing progression. Besides, coming, as it did, from the text realisation in the first edition, it was infested, one might say, with typesetters' misreadings of Joyce's overlays, or their misplacing them, or overlooking them altogether in the documents. The errors needed to be eliminated and the markup provided.

It seemed to make little sense to touch up separately each individual revision and augmentation element as shown in the accumulated assembly delivered from the collation run. This would have been too error-prone a procedure; and the genetic marking-up of the elements—including a marked-up splicing-in of text deleted somewhere along Joyce's writing campaigns—would still require separate attention. What we did instead was to build a complete mirror text as a double, so to speak, to the revision and augmentation output from the computer collation of early-version text against the first-edition clone. To assemble the mirror text, we repeated, as it were, the typesetters' labours all over again. From the original documents⁷ we transcribed Joyce's overlay

7 From the original documents' meaning: from their high-quality reproductions in the facsimile of the Rosenbach manuscript and the photo-reproductions in the successive volumes of *The James Joyce Archive*, ed. by Michael Groden, *et al.*, 63 vols. (New York and London: Garland Publishing, 1977-79). Spread out as the originals are between (in the main) Philadelphia; Buffalo; Cambridge, Massachusetts; and Austin, Texas, we were fortunate to be able to work day-by-day from the reproductions. I had personally seen all originals before our project began, and I returned to them repeatedly for on-site inspection during the years of editing.

modifications—deletions, additions, deletions-and-replacements—into individual lists, double-checked our transcriptions textually with the help of suitable computer collation subroutines, and provided each listed group of entries (those, for instance, from the second typescript overlay, or from the placards, or, say, from the fifth proofs) wholesale with their respective level-defining markup. The individual lists were then pleated together. The composite transcription list thus comprised not only an authenticated text of all revisional change and accretion of the text for *Ulysses* between the printer's copy and the final proofs for the first-edition book. It held also, through its markup, all requisite information for that change and text increase as a genetic text progression. By design, moreover, the composite transcription list ran parallel, unit by unit, with the assembly of all revision and augmentation elements gained from the collation of the early-version construct against the base of the first-edition clone. These revision and augmentation elements, in their turn, although they were not marked up and were textually unreliable, here carried the precise first-edition page.line,word numbers of the collation base-text. As mentioned, an output element from a TUSTEP collation is (because of its reference specifications) re-deployable as an update instruction for the TUSTEP updating routine. The page.line,word numbering is the operative element of each update instruction. These operative elements alone could consequently be re-used: they would 'simply' need to be prefixed to the text elements required, namely those from the lists of our own re-transcription of the Joycean overlays in the documents, just as we wanted them for the continuous manuscript text. Thus, we removed from the output protocol of the collation the real first-edition text elements and left standing as pointers the page.line,word numberings only. To these we freshly attached the textual units as assembled, verified, and marked-up in our composite transcription list. This became the command list for the TUSTEP updating routine. It was eked out by the readings and reading configurations (for example, the mark-up) of the early-version text. Text and mark-up in conjunction were so grafted into the first-edition clone; added to the list of update commands, too, were the instructions, previously tagged, for the necessary corrections to the text rendering from the first edition. The update realised digitally the continuous text collocation as if inscribed

on one imaginary manuscript. This was to form the raw foundation upon which subsequently we would build our critical edition text.⁸

What we had procedurally achieved, thanks to our encompassing deployment of the computer, was really quite a feat of abstraction. The assembling of the continuous text of an imaginary manuscript in one digital data file resulted from grafting that multiply marked-up text onto the matrix of the computer-stored transcription of the real first edition. That transcription was, in this operation, however, not embraced for its text, but for offering the 'empty form' of its reference structure, its stable page.line,word numbering. Paradoxically, one might say, we threw out from the digital transcription the real first-edition text and replaced it with the essential raw-text version of *Ulysses* as Joyce progressively wrote it through the pre-publication documents.

Critical Editing

The graft represented a continuous text as-if-transcribed from one imaginary manuscript. As collocated, it was born digitally, yet it was but a raw text assembly that still required conversion into the edition text. This was where editorial operations resembling copy-text editing began.

The continuous text collocation assumed the position of a base text to be subjected to critical editing. On the technical side, this can be taken literally. We installed the continuous text collocation as base text in a set of TUSTEP collation runs. Against it we collated, one by one, the successive published instantiations from our store of digital transcriptions. The individual collation protocols were fed into a visualisation module that fused them and printed the composite results from the several collations in parallel lines with the text agreements or differences arranged in vertical columns. In these 'editing scores', as we dubbed them, we assessed every variant in a later instantiation for its

8 Midway through the project, my team and I reported on it at a TUSTEP colloquium in Tübingen. For the minutes, see Hans Walter Gabler *et al.*, 'Computer-aided critical edition of *Ulysses*' (1979) at <http://www.tustep.uni-tuebingen.de/prot/prot18e.html>. This account details quirks of procedure I have not specified here. In relation to the present essay, it illustrates stages and formats of computer output with which we worked. As it so happens (considering the decades that have passed since we did the original work), these minutes give also the only illustration still digitally accessible of core stages of our editorial workflow.

acceptability as emendation to the base-text collocation of the continuous manuscript text. Emendations began at trivial levels. An overwriting in Joyce's hand may on a proof page appear as a sequence of words only. The typesetter spliced it in with punctuation marks into the previously set text. The punctuation in the first edition is thus a feature not of the text as Joyce wrote it, but of the text as transmitted. Deeming it critically acceptable or even necessary, we used it as emendation to our raw base text. Where the later instantiations of *Ulysses*, too, feature touch-ups that are critically justifiable as emendations to the continuous manuscript text, they generally cause no ripple (as it were) because they concur with the pre-1984 tradition of *Ulysses* in print. The case is different, and was in the early reception of the 1984 edition at times quite controversial, when the critical editing affirms the continuous manuscript text against the *Ulysses* instantiations in the publication history from the first edition in 1922 onward. Affirming the continuous manuscript text by critically accepting its readings against the publication history meant rejecting the *textus receptus* of *Ulysses* in print since its first publication. Critical editing always means either judgmentally departing from the chosen base text by amending and emending it, or affirming the base text by rejecting deviations from it documented in competing text instantiations collated. Under such premises, our endeavour was to establish the edition text as closely as possible in accordance with the text written and thus materially evident in and from the documents of composition and pre-publication revision. This resulted in a text from which all published texts, beginning with the first-edition text, were revealed to depart. The perspective was thoroughly unconventional and was, in early reception, as often as not re-accommodated to the conventional: *Ulysses. A Critical and Synoptic Edition* was mistakenly seen as amending and emending the first-edition text. But for our approach, it was not the first-edition text, but the collocated continuous manuscript text that was the base-text norm from which either critically to depart, or else critically to confirm.

Critically confirming the continuous manuscript text began again, in relative triviality, with capturing word forms or spellings that had not survived from Joyce's inscription into the first-edition text. For example, Joyce makes Bloom ruminate—if that is the word—on cheese: 'Cheese digests all but itself' and to add: 'Mity cheese' (U 8, 755). The adjective

arrives in the first edition as 'Mighty'—with the pun orthographically lost. Joyce's spelling is 'mity', thus evoking cheese-mites. Sometimes the critical search for the text as written involved shifting whole passages correctly into position, as originally documented in the writing, from where by a typesetter's mistake they stood in the first edition.

By such archaeology of the writing process, even text lost in the pre-publication transition between documents was retrieved, most spectacularly so Stephen Dedalus's highly charged inward reflection during the 'Shakespeare debate' in the ninth episode, Scylla & Charybdis: 'Do you know what you are talking about? Love, yes. Word known to all men'. (*U* 9, 429–430) Because they are critically based, such retrievals naturally needed to be argued. In this particular instance, both interpretatively critical and strictly bibliographical reasoning was required. On the critical plane, an interpretable correspondence is relevant with the dialogue in the fifteenth chapter, the Circe, or nighttown, episode, between Stephen Dedalus, thoroughly drunk, and his dead mother, phantasmagorically re-arisen from her grave. At one juncture, the dialogue turns on the charged phrase. Stephen asks of his mother, '*eagerly*': 'Tell me the word, mother, if you know now. The word known to all men'. (*U* 15, 4192–3) Yet from this instance in the fifteenth episode, it is not sufficient to support by critical argument alone the restoration to the ninth episode of the lost manuscript passage—for perhaps the phrase is lacking in the first-edition text of the ninth episode not by error, but because it was deleted at a document stage not preserved. To minimise the likelihood of this option, therefore, the relationship between the fair copy and the typescript inscriptions for the text progression in question in the ninth episode needed to be bibliographically analysed.

The pattern of underlinings for italics, together with an assessment of the variation between the respective document texts in the fair copy and the typescript, helped the analysis. The fair copy narrates an interruption of Stephen's monologue about Shakespeare, fathers, and daughters by a murmur from Mr Best: '—The art of being a grandfather, Mr Best murmured.' Stephen speaks on audibly, but after a couple of sentences recedes into the stream-of-consciousness mode that embeds the self-dialogue in thought, 'Do you know what you are talking about? Love, yes. Word known to all men' and ends in a long quote in Latin. The

quote in Latin is in the fair copy carefully underlined. The typescript, by contrast, lacks both the couple of sentences spoken by Stephen and the whole stream-of-consciousness passage, including not only the self-dialogue about 'love', but also the quote in Latin. Leading up to this lacuna in the typescript, we find (in seeming compensation?!) Mr Best's murmur extended by a quote in French: 'L'art d'être grandp . . .'. The quote in French is underlined in ink, and to all appearances underlined by Joyce himself.

Such underlinings in ink for emphasis occur regularly sprinkled over the typescript. Checking back, moreover, we find them correspondingly patterned in the fair copy, where they are positively Joyce's. It is this non-textual feature of underlining for emphasis that permits hypothesising what happened. The typist worked from a Joycean holograph. We assume that this was a lost final working draft and take this hypothesised document to have been the common source of both the fair copy and the typescript. It was characterised, we also assume, by the same features of inscription as the fair copy and the typescript; we infer this, in particular, from the congruence in underlinings in the fair copy and the typescript. The hypothesis then is this: the typist typed Mr Best's 'L'art d'être grandp . . .'; these words in French were, we presume, underlined in the final working manuscript; the typing then resumed after an underlining in the final working manuscript for words again in a foreign tongue (this time in Latin), but occurring two paragraphs later. The typist so inadvertently skipped, after Mr Best's murmur, the sentences Stephen audibly spoke and his silent reflections thereafter. The spoken sentences are necessary to carry forward his Shakespeare argument. The Latin quote is a beautiful narrative illustration of the convolutions Stephen gets into when giving associations of thought a free rein. It is untenable critically to argue that this double embedding had to fall by the wayside in order to eliminate from the author's valid text for *Ulysses* Stephen's silent self-dialogue, 'Do you know what you are talking about? Love, yes. Word known to all men.'

The bibliographical argument alone is equal to the case: the text lacuna in the typescript resulted in the heat of the typing from an eyeskip from one foreign-language underlining to the next. Where a critical argument is always potentially bidirectional—either of two readings could be 'intended'—a progression from correct to incorrect on the grounds of

a material feature bibliographically evident can only be one-directional. In the present particular case one must also supportively adduce the strong critical argument that restoring Stephen's speech and his ensuing silent reflection restores an essential link in the run of his Shakespeare argument in the National Library. But it is the bibliographic assessment that provides the editor's lynch-pin—or you may say, buttresses his defence for critically retrieving the phrase as part of Stephen's inner reflection in the Scylla & Charybdis episode for the edition text of *Ulysses*.

The retrieval in this instance, be it nonetheless noted, is of text from a document, the fair copy, which is collateral to the typescript and thus not in the direct line of descent of the *Ulysses* text down to the first edition. The assumption must therefore also be that the fair copy replicates in identity text that was in the lost final working manuscript, in the first place, and thence made it, or rather, but for the typist's eyeskip, should have made it into the typescript. Moreover, while the editorial decision is both bibliographically supported and critically tenable, the example still captures in a nutshell that our edition text, as an edited text, establishes Joyce's text as critically assessed against its transmission in print. It remains simultaneously true that, as an edited text, it is, as always, the editor's text. An editor's edited text should not, for in truth it cannot, be given out to be the author's text, however close the editor's text might, and by-and-large in practice should, come to the author's text as documented.

Where, in our case, the edited text ends up as other than that in Joyce's writing, showed, alas, also in the errors we committed in response to the authorial inscription and thus incorporated in the edition text as published in the 1984 first impression of *Ulysses. A Critical and Synoptic Edition*. The instances were amazingly few where we had misread the autograph inscription. We adjusted and reported some half-dozen cases in the second impression of 1986. Somewhat spectacularly also, and mistakenly, the fifth chapter at first featured a 'Captain Culler', and the tenth had a cyclist by the name of 'H. Shrift' among the quartermile flat handicappers. These became again correctly 'Captain Buller' (*U* 5, 560) and 'H. Thrift' (*U* 10, 1259) in the 1993 reprint of the reading-text-only editions from Random House/Vintage. It was thanks to the vigilance of early users of the edition that we were able to eliminate these

first-impression errors. As evidenced by these alerts, the edition was clearly fulfilling an edition's range of commitments right from the start; with the edition text it offered, it provided also the customary evidence record and tools of control to check its quality and performance.

The edition's evidence record, in conclusion, extended also to its incorporation of a traditional 'historical collation'. Once again, we set up a multiple collation procedure. Its base text this time was the edition's reading text as derived by 'style-sheet' extraction from the full edition text. The collated texts were the 1922 and 1926 first- and second-edition texts, and, in addition, the texts from the editions already mentioned, the 1932 Hamburg edition, the 1934 Random House (New York) edition, the 1936/37 private and public Bodley Head (London) editions, and the 1961 Random House (New York) edition. The collation protocols were merged and fused into one composite file. This passed through a judiciously submodified series of reformatting routines in the TUSTEP modular system to emerge in the end untouched by human hands in its substance, as a thoroughly conventional historical collation ready for printing.

The Impact

The Estate and the Estate's Advisers

The whirlpool activity during the edition's seven years of preparation was fueled by the reorientations of methods and media I have described. These were, in terms of conception and methodology, creative turbulences. This remained true regardless of the fact that, toward the end of the preparation phase, our concept and its textual outcomes met non-publicly with objections. From its beginnings, the edition project had operated with the good will of the James Joyce Estate. This good will had its origin in a brief but momentous exchange with Peter du Sautoy, trustee of the Estate, at an encounter in Paris. Peter du Sautoy was also, as it happened, a director of Faber & Faber publishers in London. At the International James Joyce Symposium in Paris in 1975, I had laid out my conception of a critical *Ulysses* edition. When we talked privately afterward, du Sautoy took the position that, 'As publishers, we receive texts from their authors and have the obligation to safeguard them as

we received them'. My response was, 'I can accept this in principle. Yet in a case like that of *Ulysses* with its history of serious text corruption, manifest in the first edition and increasing further through its successive publications, you, as the James Joyce Estate, have a prior responsibility to the integrity of Joyce's text'. It was, I am happy to say, a counter-argument he fully accepted. With circumspection, at the same time, he appointed a triumvirate of advisers to the Estate to assess the editorial work and its outcome. The Estate wished to be guided by the triumvirate in understanding the scholarly scrutiny our endeavour lavished on *Ulysses*. Needless to say, the advisers to the Estate were also a significant support for me and my team in our work on the edition. They were, by name and standing, Richard Ellmann, the Joyce biographer; Clive Hart, an encyclopaedic Joyce critic and scholar with both great factual knowledge of things Joycean and editorial experience of his own; and Philip Gaskell, renowned book-historian and textual bibliographer of the British school. Peter du Sautoy, for the Estate, convened us repeatedly for critical scrutiny of progress made. The meetings set in after we had, in 1979, produced, and offered for discussion at the International James Joyce Symposium in Zurich that year, a prototype of the edition-to-come for the eighth chapter, the Lestrygonians episode. From our workshop in Munich, we brought to the meetings—or rather, circulated to the advisers beforehand—chapter printouts of both the edition text and the reading text as derived from the edition text, together of course with the respective apparatus listings. The live discussions of these materials—regularly attended, too, by Gavin Borden of Garland Press of New York, our prospective publisher—were fruitful and, in many an instance, seriously helpful in enabling us to affirm or reconsider editorial assessments. For well into the third year of consultations with the Estate's advisers, our exchanges were without controversy, which gave us the comforting impression that what we were doing not only found approval but was also well understood. Yet toward the end of the penultimate year our comfort was shattered. The advisers were discovering that the edition in the making did not conform to their expectations of an edited *Ulysses*. Apparently, it jarred increasingly with their traditional notions of 'the scholarly edition'. This put us in a quandary—and even the edition as such in jeopardy. The whole point of the edition was, after all, that it was to be innovative beyond conventional

editions. It was a fundamental reversal of an edition's perspective on the text for a work to establish the edition text not from the first edition text and in observance of the author's intention, but instead from a genetic perspective according to the very evidence of the author's progressive writing in the successive pre-publication documents. Nor had it previously been heard of that the text of a first edition was defined as a departure from, and thus, by the nomenclature of textual scholarship, as the first corruption of the established edition text. But this was what formed the basis of, and followed from my, and our, approach to editing *Ulysses*. The Estate's advisers had, alas, been somewhat slow fully to take this in. But they now balked at it even to the extent of temporarily resigning their commission. The Estate's chief trustee was left alone to decide whether to follow their advice (implicit in the resignation) not to agree, on behalf of the Estate, to the publishing of the Critical and Synoptic Edition—which, by this time, was all but ready. I made it clear that the edition must not be seen as, or declared, the Estate's edition. As its scholarly editor, I laid claim to sole responsibility for it. At this sensitive juncture, I also received support and measured guidance from Michael Groden and A. Walton Litz at Princeton University.

Emotions subsiding, the advisers returned to the fold. It was not only the edition's (and, I suppose, my own) autonomous assertiveness, furthermore, which succeeded in bringing the edition before the public. What was essentially salvaged—all-important at the time when *Ulysses*, the work, was still in copyright—was that the edition was published with Estate consent. Nonetheless, it was unambiguously understood to be the edition prepared by Hans Walter Gabler with Wolfhard Steppe and Claus Melchior. The clear division of responsibility between the Estate and the editor rendered moot from the outset, too, all suspicion (variously voiced for a while within a few years of publication) that the edition, in the guise particularly of its reading text from which the first-edition text so notably diverged, had been established to favour the Estate's copyright interests.⁹ Enterprisingly, in succession to his

9 The decade was the 1980s. It was a time when modernist writers' estates were seeing the end looming of the (then) fifty-year post-mortem copyright protection of their respective authors' works. The expectations, tenable or not, were that edited texts would create new copyrights. This was, to my knowledge, the wishful thinking, too, on the part of the James Joyce Estate. But the initiative to establish the Critical and Synoptic Edition of *Ulysses* did not come from the Estate, nor did they, or the

singularly pioneering sixty-three volumes of *The James Joyce Archive* out of Garland Press of New York from 1977 to 1979, Gavin Borden published the three-volume *Ulysses. A Critical and Synoptic Edition* in 1984. As the imaginative publisher he was, he infused into its formatting distinct ideas of his own. The facing-page arrangement of edition text and reading text, specifically, was his design solution. At the public launching of the edition at the International James Joyce Symposium held in Frankfurt in 1984, he and I jointly presented the symbolic first copy of the edition to Stephen James Joyce, James Joyce's grandson.

Initial Reception

Ulysses. A Critical and Synoptic Edition received highly positive and elated responses upon publication—even though for a time thereafter considerable streaks of adverse criticism came to overshadow the initial euphoria. The *New York Times* carried the news of the edition's publication on its front page with a good understanding of the edition's problematics and objectives.¹⁰ As one of the journalists' pre-contacts via transatlantic telephone, I was impressed by their astute questions. Their German colleagues, by contrast, came nowhere near matching their sharp US colleagues in comprehension. Foremost among academic reviewers, Hugh Kenner, the eminent Modernism and Joyce critic, grasped the edition's central quality: the edition gave us not a new *Ulysses*, he emphasised, yet very much a text in which all blurring of textual detail from its descent through the pre-publication documents, exacerbated further during its decades of trade-driven transmission through printed editions, had been brought again into the clear focus of that text's first invention.¹¹ Jerome McGann, then and still today a

publishers, at any time take me into their service and pay, 'for hire', as the legal term would have been. The enterprise of the edition was solely my conception. It was comprehensively financed by German public grant money from the Deutsche Forschungsgemeinschaft. While always grateful for the James Joyce Estate's backing and moral support, I assumed and assume sole responsibility for the edition as an achievement of scholarship.

- 10 *The New York Times*, 7 June 1984, front page and continued on Page C19, Column 1. Hugh Kenner's essay 'The Computerised *Ulysses*' in *Harper's Magazine*, 1 April 1980, 89-95 may have helped the *Times* journalists to gain an advance understanding.
- 11 I believe I correctly remember Hugh Kenner on at least one occasion so characterising our edition—yet I regret to be unable to give a precise citation. On 13 July 1984, the

notable authority in the field of textual scholarship, was the earliest respondent to comprehend both concept and theory of the edition's genetic perspective on the writing and text of *Ulysses*.¹² A few years later, George Bornstein drew from the edition's genetic disposition a stringent interpretative discourse. For the benefit of Joyce criticism and literary criticism at large, he showed what insights into Joyce's art, and what critical appreciation of the work, could be drawn from the full edition text of the critical and synoptic *Ulysses* edition.¹³

Within two years of the publication of the three-volume edition, the commercial publishers with prior exclusive rights under copyright to *Ulysses* eagerly wished to realise the option held out to them in the contract for the Critical and Synoptic Edition (to which they were co-signees). For their general markets, they brought out the edition's reading text separately. Wholly subservient to educated cultural preconceptions, they advertised this as the 'definitive text'; soon, this catch-term was modified to the 'corrected text', and eventually to the 'Gabler text'. With the edition so named, the controversies that in the late 1980s broke out with the aim of sinking the edition were clearly seen to possess an advertising appeal.

As to the broadcasting of the buzzword 'definitive', this is an echo of the expectation to which scholarly editing has traditionally been held. It shows a total lack of awareness of a fundamental contradiction. A critical edition cannot, by definition, be definitive. Textual criticism requires 'the application of thought', as A. E. Housman over a century ago memorably phrased it,¹⁴ and hence establishing an edition demands throughout the exercise of critical judgment. Reciprocally, reading and using an edition demands critical assessment. Ever since textual criticism and editing were academically established about two centuries ago, however, this twin discipline has also developed into a highly authoritarian branch of scholarship. Editors deferred to 'authority', that of texts and of authors,

Times Literary Supplement carried his review of the edition under the delightfully Kennerian title 'Leopold's bloom restored'.

12 Jerome J. McGann, 'Ulysses as a Postmodern Text: The Gabler Edition', *Criticism*, 27 (1985), 283-305.

13 George Bornstein, 'Joyce and the Colonial Archive: Constructing Alterity in *Ulysses*', in *Material Modernism. The Politics of the Page* (Cambridge: Cambridge University Press, 2001), 118-39.

14 A. E. Housman, 'The Application of Thought to Textual Criticism', *Proceedings of the Classical Association*, 18 (1922 [August 1921]), 67-84.

and, in compensation, established for themselves and their editions the aura of being 'authoritative'. This led easily to the assumption that their edited texts were definitive. A dynamic critical dialogue with edited texts as 'texts' and as 'edited' was effectively subdued, if not outright smothered and cut off. Thus, the reading text for *Ulysses* as published by itself commercially was, by being labeled 'definitive', pushed into the corner of conventional expectations for editions. To skew the perspective further, the edition text on the three-volume edition's left-hand pages, moreover, was only dimly recognised, if at all, for its conception and critical potential. In the wake of the early death of its publisher, Gavin Borden, and the dissolution, in consequence, of the Garland Press, it went out of print and so withdrew, one might say, into hibernation. Yet currently it is re-awakening as a Digital Critical and Synoptic Edition.¹⁵ The paradox of publishing a digitally assisted edition in book form is being overcome.

A Decade of Controversy

Tempests erupted over the edition in the late 1980s and early 1990s. Public opinion, initially enthusiastic, was for a time seriously swayed by publicity-seeking attacks. Their main spokesman was John Kidd, a young scholar affiliated with no academic institution, moved by a distinct Joyce craze, highly intelligent, and possessed with a collector's passion and knowledge about the material heritage of Joyce's texts in mainly their published forms. What he had no training in, let alone personal hands-on experience of, was textual criticism and editorial scholarship—nor did he have a genetic perspective on textuality. As the self-appointed adversary, for unfathomable reasons of his own, of *Ulysses. A Critical and Synoptic Edition*, he put fierce energy into pursuing the edition's self-documentation for its leads to and into the source documents. In principle, that is, he put these materials to uses that they were designed for. Yet what he clearly did not sufficiently fathom was how investigating the edition with these facilitating aids presupposed professional understanding of the editorial rationale and its pragmatics of procedure. What would have been required to critique

15 Ronan Crowley's and Joshua Schauble's Digital Critical and Synoptic Edition has been under development since 2015/2016.

the edition justly was an independent pre-knowledge of existing systematics of scholarly editing, in particular those of the German and the Anglo-American schools. Aside from Kidd's insinuations about the incompetence of an editor, foreign (German) to boot, his materially massive attacks, viewed in sober retrospect, went essentially no further than stating that 'the edition does not conform to critical editing of Anglo-American conception' or 'the edition does not exemplify in pure consequence German genetic editing'. True assessments, for what they were worth, in both cases—yet largely unconnectable to the inundation of purported 'errors of execution' adduced, but never argued, in their support. The intellectual achievement that the edition claims for itself lies, by contrast, in the synergetic fusion of the systems that differ in some underlying principles, while agreeing in others, and so in their different ways result in coherent and valid scholarly editing. In our case, they do so in fusion together.¹⁶

Significantly, there was between, say, 1985 and 1995, and at places spread out between New York and Copenhagen, Miami, Monaco, and Dublin, a lively succession of Joyce meetings, and similarly of conferences

16 The first public onslaught of John Kidd's was launched in April 1985 with a *Washington Post* exclusive interview, accompanied by clandestine circulation of a conference paper to be delivered at the New York meeting of the Society for Textual Scholarship, where I was present to respond. Having had the pre-circulated paper 'clandestinely' leaked to me beforehand, my response was prepared and was, to the distinct consternation of the session moderator at the STS meeting, not civilly diplomatic. (*Studies in the Novel* named its volume 22, no. 2 [summer 1990] 'A special Issue on Editing *Ulysses*'. This included, from the 1985 STS meeting, John Kidd's paper, 'Errors of Execution in the 1984 *Ulysses*' [243-9] and my 'A Response to John Kidd's 'Errors of Execution in the 1984 *Ulysses*' [250-6].) In the meantime, and after the commercial reading-text-only edition had been published, Kidd found an editor of *The Papers of the Bibliographical Society of America* willing to undertake bringing the bulk of his indefatigable note-taking sufficiently into form for publication in these *Papers*. (See: John Kidd, 'An Inquiry into *Ulysses*: The Corrected Text', *Papers of the Bibliographical Society of America*, 82 (1988), 411-584. My response to this was Hans Walter Gabler, 'What *Ulysses* Requires', *Papers of the Bibliographical Society of America*, 87 (1993), 187-248.) After similar midwifery, the *New York Review of Books* had, in its characteristic vein of sensationalism, already carried Kidd's article 'The Scandal of *Ulysses*'. This was in June 1988. The piece was published in time for tall piles of copies of the issue to be set up outside the conference venue at the International James Joyce Symposium held around Bloomsday that year in Venice. It was somewhat ironic that, at this large gathering of Joyceans, the opponent did not turn up in person. But he had his spokesmen and spokeswoman at the event, with some of whom I had the opportunity to debate publicly. I suspect we tended to talk at cross-purposes, as well as over the heads of many in our audience.

on textual criticism, that incorporated discussions of our *Ulysses* edition. It has been said that very rarely had a scholarly edition received such attention in academia, as well as non-academically. It brought home to the discerning that there was such a thing as textual criticism and editing, that texts were not immutably given, and that the fact of life that texts in composition and transmission were variant was something essential that could be understood to matter. Yet in the short run, the attack, as it began to multiply and diversify, burgeoned into something popularly labeled 'the Joyce Wars'. This escalation was exacerbated by the circumstance that the attacks, personified in the original attacker, tended to be taken at face value. Nowhere was there a discernible, independent, and knowledgeable double-checking of the material of mass destruction heaped on the edition. The media broadcast the controversy worldwide, not necessarily with increased understanding of what, rationally, the whole dissent was about. Stephen James Joyce, the grandson who had in the late 1980s become the first member of the family to assume the trusteeship of the James Joyce Estate, felt helpless about it and pronounced on myself and John Kidd together Mercutio's curse from *Romeo and Juliet*: 'A plague on both your houses'. Doubtlessly, the controversies over the edition increased his distrust of, and aversion to, Joyce studies, particularly where they involved Joyce's texts themselves. Over the years, until the oeuvre came finally into the public domain on 1 January 2012, the James Joyce Estate was, by its extremely restrictive granting of permissions, the fiercest dis-enabler of Joyce studies involving original textual material. The regrettable 'Joyce Wars' label may, alas, have played a part in fossilising that mindset.

The US publisher, Random House/Vintage, was seriously unsettled by the negative press that broke out in the wake of their publishing in 1986 the reading text from the Critical and Synoptic Edition to replace outright their old *Ulysses* edition, with its US publishing history since 1934. They appointed a committee to investigate the integrity of their new edition, ours. As it turned out, the committee disbanded before ever getting down to business. The abortive attempt to have the new text adjudicated had one fundamentally welcome side-effect: in the early 1990s, Random House New York returned their pre-1986 edition to their list, without removing ours from it. In the UK, similar decisions were taken. The hardback publisher of the reading text from

the Critical and Synoptic Edition was The Bodley Head (they have meanwhile become a division of Random House UK). They licensed Penguin UK to issue this in paperback. The license was returned in 1992. Instead, Penguin UK took it upon itself to publish The Bodley Head's pre-1986 text of *Ulysses*. While these moves no doubt at the time bowed to the dissent then rampant, they illustrated through *Ulysses* that works of literature may be represented publicly by competing editions variant from one another—something that the multitude of, say, Shakespeare editions regularly cohabiting on the market should have made us aware of long ago.

The fierce antagonisms against the edition in the late 1980s and through the early 1990s had as bottom lines furthermore, however, two noxious insinuations. One addressed unwary Joyce readers, students, and critics: 'Don't bother about this edition. It is a bad edition'. The other was aimed at textual scholars and editors: 'This is an edition unfit to be followed. It is both methodically unsound and replete with "errors of execution"'. Their dispersal can be dated to the meeting of the Society for Textual Scholarship in New York in 1995. With significant moves having taken place through the early 1990s to reorient and widen the professional horizon of Anglo-American editorial scholarship, it was a European society member, J. C. C. Mays, who at that meeting came to, as one might say, the final rescue. From his understanding gained from his own infusion of conceptions of German genetic editing into his editing of the poetry of Samuel Coleridge, he persuasively vindicated *Ulysses*. A *Critical and Synoptic Edition* to the gathered community of text-critical and editorial professionals.¹⁷ Peter Shillingsburg, the voice of American textual scholarship at the meeting, did not gloss over the fact that give-and-take arguments between the Anglo-American and the German views and practices of textual criticism and editing formed an ongoing and at times controversial dialogue—one in which he was, has been, and indeed still is, a leading participant.¹⁸ Speaking for James Joyce studies at the STS meeting in New York in 1995, it was Robert Spoo, erstwhile editor of *James Joyce Quarterly*, but since a professor of law and a highly

17 J. C. C. Mays, 'Gabler's *Ulysses* as a Field of Force', *TEXT*, 10 (1997), 1-13.

18 Peter L. Shillingsburg, *Textuality and Knowledge. Essays* (University Park, Pa.: Pennsylvania State University Press, 2017). Particularly pertinent is Essay 10, 'Scholarly Editing as a Cultural Enterprise', pp. 145-65.

regarded copyright expert, who analysed the reception deficits of Joyce scholarship and criticism toward the Critical and Synoptic Edition. Spoo also explained the somewhat defensive and aggressive helplessness of 'Joyce studies' in the wake of the edition.¹⁹

The Generation Shift

It was, I will admit, a source of quiet amusement to me to observe deeply read Joyceans balking at wordings in the critical reading text of *Ulysses* to which they were unaccustomed because they were so deeply familiar with the *Ulysses* they had always read, and, often over considerable stretches, memorised. I remember reflecting at the time that the edition we were presenting was really an edition for the next generation who would encounter the work directly in this edition. Laying open, as Robert Spoo did, how Joyceans were caught unprepared by what the edition offered, points to how the general public also found itself at a loss—and how the edition itself may from the outset have failed to make its objectives sufficiently clear and intelligible to its prospective and hoped-for users. Our edition did not adequately anticipate the disorientation arising from shocked first encounters of even knowledgeable readers with the 'otherness' of the edition and its edited text.

The edition did not, frankly, meet its readers and users where they were, back in the 1980s. It did not, alas, set out in plain language how and why the edition in its entire format, and most directly in the reading text in which it is first encountered, differs from the non-edited text for the novel alternatively available on the market. It assumes instead a pretty thorough prior understanding of the critical discipline of scholarly editing. My Afterword to the edition, as I conceived it at the time, is in tone and argument very much the editor addressing co-professionals in the trade. The Afterword speaks more about the edition's material basis and how this was dealt with, than about how the edition could be used. If we consider, in particular, that the edition would find its main audience among lay and professional users in the English-speaking world, the Afterword should have been more articulate and more explicit than it is about the genetic perspective the edition incorporates and its

19 Robert Spoo, 'Ulysses and the Ten Years War: A Survey of Missed Opportunities', *TEXT*, 10 (1997), 107-18.

critical potential. The core of the edition is, after all, that it presents the processes of the text's development from its fair-copy to its first-edition instantiation. The Afterword would thus have done well to be very clear about what this means.

It is the edition's underlying conception that the text of the work *Ulysses* extends in time over the range of its material inscriptions. Hence, the edition offers the text of *Ulysses* in two guises: as a reading text, yes; but mainly as an edition text to be experienced diachronically, that is, in its temporal depth. To present text in its diachrony in an edition and so to present it as open in its manifold variation over time, is an editorial undertaking thoroughly unfamiliar to a cultural mindset in which texts are effectively synchronous and so essentially closed. In the Anglo-American environment, certainly, at the time the Critical and Synoptic Edition came out, there was no awareness either of perspectives on editing already well developed in Germany, or of genetic criticism as it was just emerging for instance in France as *critique génétique*.

Genetic criticism represents an approach to the material evidence for texts that does not take the material as vicarious, as one might say—that is, does not regard documents reductively as witnesses, to be exploited merely for the purpose of editing texts from them. Genetic criticism must not be mistaken, moreover, for a branch of scholarly editing. It is a method of literary criticism. It faces text, and the processes of its writing, on site, on the sheets of paper where it happens, or happened. The expanse on which the genetic critic works is the original papers or their print-facsimile, or digital-facsimile, reproductions.

The explorative processes of genetic criticism are analytic. They will, it is true, commonly involve manifold 'liftings-off' of the traces of writing from their material support: a copying-off, or transcribing, of all that is readable in the original papers, as well as somehow encoding what is otherwise discernible, such as positions (positioning of segments of writing above or below the main writing lines, or in the margin, or as overwriting with pencil over ink and such like), as well as doodles, coffee stains, and what have you. These procedures are commonly, too, preparatory steps toward editing. Yet for genetic criticism, they are properly auxiliary toward developing the genetic critic's interpretative argument. The similarities of initial operations led to mutual misunderstandings. For a long time, the German genetic

editors never quite grasped that what the genetic critics were after were not editions, but critical interpretation. In the service of their own ends, the genetic critics did see, it is true, that somehow they needed to formalise their gathering of the ammunition for their critical argument and so made gestures toward organising it in a manner reminiscent of genetic editing. But their note-taking organisation of the material traces of writing and text must be understood as a mere stepping-stone toward critical interpretation of the intellectual and aesthetic essence of the processes of composition and revision.

By contrast, the genetic editors' representation and presentation of the materialised substance of writing and text was an end in itself. It constituted as such the core of the editorial endeavour, the edition. But just what this meant under changed theoretical conditions was not in itself much reflected. Millennial traditions of the craft of editing and its relation to criticism tended to go unquestioned. 'We, the editors, provide you with reliable texts; you, the critics, do something with them'. Yet neither genetic editors, nor critics traditionally trained, were as yet sufficiently competent 'to do something' with diachronically conceived edition texts. Behind the 'synopsising'—that is, the telescoping of the textual development of *Ulysses*, from fair copy to first edition, on the left-hand pages of *Ulysses. A Critical and Synoptic Edition* of 1984—lay, it is true, a considerable amount of genetically critical analysis. Yet what critical argument could be drawn from it never got articulated in critical prose. The edition, being an edition, left it to critics to develop this critical discussion from the synoptic presentation as editorially devised. It did this, however, at a time, four decades ago, when the genetic was not commonly yet a dimension of criticism. Since then, the situation has changed. Our fundamental notions of 'text' have shifted. In terms of theory, 'text' today is not conceived of as a closed and synchronous structure. It is open and extends in time. This implies that variance and variation are integral to it and not some mere external noise from its workshop environment.

Yet to realise and to deal with this, a commensurate medial access to 'text', so conceived, is required. The medial solution devised by German 'manuscript editors' and modified further into the left-hand pages of the *Ulysses* edition, however, was—if the truth be faced—fundamentally impossible. It is impossible to represent three- and

four-dimensionality—the disposition of text-in-composition on paper, and its growth in time over perhaps whole sequences of documents—on a two-dimensional book page of an edition in print. ‘Synopsis’, it is true, is a high intellectual exercise, as well as a notable technical achievement of the Gutenberg era: think of ‘seeing together’ the Four Gospels in parallel columns on a facing-page book opening—and by analogy, ‘seeing together’ the states of a text development in editions by Hans Zeller of the poetry of Conrad Ferdinand Meyer—with those of *Ulysses* on the left-hand pages of our edition.²⁰ But synopsising text on paper pages fundamentally means levelling its diachrony into synchrony. However, nothing else was feasible until very, very recently. But now it is. The digital medium, as the originating site for modelling the genetic dimension of text, provides also the technical means for representing and presenting text as developing in time through dispositioning it into acts and spaces of writing in progress.

Reception and critique of *Ulysses. A Critical and Synoptic Edition* over close to four decades have on balance affirmed its success as a scholarly enterprise. The edition has moved scholarly editing in general innovatively forward. It has become apparent of late, furthermore, that its preparation forty years ago comprehensively with computer assistance laid the ground for the edition’s full migration today into the digital medium. Our digital input and encoding of the *Ulysses* data was, back in the late 1970s and early 1980s, carefully prepared. This was at a time before even SGML, let alone XML as such, or XML differentiated for text encoding by means of XML-TEI, were recommended templates for marking-up text structures. From the early 1990s onward, our original data were first converted into an SGML format,²¹ subsequently into XML-TEI P4, and most recently into XML-TEI P5 v 2 and 3, the TEI versions that incorporate diachronic encoding.²² The advances that digitality has

20 See the web presentation of the Polyglot Bible: https://archive.org/details/PolyglotBiblepolyglottenBibel/5_Volumes_or_Figures_15.25_and_15.29_in_my_essay_/_Argument_into_Design:_Editions_as_a_Sub-Species_of_the_Printed_Book_/https://books.openbookpublishers.com/10.11647/obp.0120/ch15.html#_idTextAnchor051.

21 Even from the SGML format, an early attempt was already successful in displaying digitally the diachrony of the left-hand-page edition text in its individual layering, thanks to Tobias Rischer’s astute deployment at the time of Peter Robinson’s visualisation software, *Anastasia*.

22 Gregor Middell and Joshua Schauble were successively at the controls of this crowning phase of conversion.

made since we first deployed the computer as our machine assistant has enabled turning the Critical and Synoptic Edition, published in its time in book form, into a Digital Critical and Synoptic Edition, usable and explorable, and so living dynamically, in the digital medium. The fresh realisation in Ronan Crowley's and Joshua Schäuble's Digital Critical and Synoptic Edition in progress, available at www.ulysses-online, has been under development since 2015–2016. With the (still) new wine of the novel's text edited with genetic awareness now properly maturing in this fresh bottle, I feel that James Joyce's *Ulysses* has successfully advanced into the digital age.