"Take your choice of those that best can ayde your action":
Editing and the Electronic Text

David Scott Kastan contends in his piece for the 1996 *Shakespeare Studies*
Forum: Editing Early Modern Texts that "Editing has suddenly become hot, or, if not
exactly hot as an activity to undertake (it does, after all, involve a lot of very tedious,
numbingly cold, work), at least a hot topic (arguably *the* hot topic) to debate" (My
emphasis). Kastan's principal reason for this contention centers on the manner in which
many postmodern scholars approach early modern texts: "Never has the materiality of the
texts we study seemed so compelling, so unavoidable, and so exhilaratingly problematic"
(30). Whether one agrees that editing is "the hot topic" to debate, certainly much has
been written on the subject in the past fifteen years since Jerome J. McGann's *A Critique
of Modern Textual Criticism*, prompting many to reexamine the New Bibliography and
their assumptions about editing and edited texts.

Despite the controversy, few would object to D. C. Greetham s definition of
textual scholarship: "Textual scholarship is more than just 'criticism,' however, and it is
best defined as the general term for all the activities associated with discovering,
describing, transcribing, editing, glossing, annotating, and commenting on texts" (103).
Current disagreements concentrate less on the activities of editing than its methods or
approaches. G. Thomas Tanselle in "The Varieties of Scholarly Editing" provides in a
convenient chart a taxonomy of these approaches (11). Tanselle begins by distinguishing
between Nonhistorical and Historical Editing. Historical Editing is divided into editing
that reproduces documentary texts without alterations (facsimiles and literal, that is
diplomatic, transcriptions) and editing that introduces alterations into documentary texts.

This latter category differentiates between degrees of editorial alteration and applies equally to the next division between works viewed as products of individuals and works viewed as collaborative (social) products, both of which are further subdivided. All the activities described by Greetham also apply to the editing of electronic versions of the texts in Tanselle's taxonomy, whether they be electronic diplomatic transcriptions of Shakespeare's plays as they originally appeared in print or electronic modern critical editions of those same works. In this paper, I will not concentrate on the technical aspects of editing electronic texts – TEI (The Text Encoding Initiative) or the intricacies of SGML (Standard Generalized Markup Language) –I will, however, strive to demonstrate that when one edits an electronic text that editor not only performs the activities that Greetham describes but also **encodes** or **tags** the electronic text for the particular purpose or use for which it is being created, editing that "best can aid your action" to appropriate Cominius' remark to Caius Martius at the Battle of Corioles.

Shakespeareans familiar with the Malone Society facsimiles, the Allen and Muir *Shakespeare's Plays in Quarto*, and the Hinman *Norton Facsimile of the First Folio* will be delighted to know that electronic facsimiles are steadily increasing in availability. The *Shakespeare: His Life, Times, Works and Sources* CD-ROM, for example, contains black and white facsimiles of approximately 5,000 images of 169 scanned documents, including the complete texts of *Venus and Adonis* (Q1, 1593), *The Rape of Lucrece* (Q1, 1594), *Shakespeare's Sonnets* (Q1, 1609), *The true Tragedie of Richard Duke of York, and the death of good King Henrie the Sixt* (Q1, 1595), *Richard II* (Q1, 1597; Q2, 1598 title page; and Q4, 1608), *Hamlet* (Q2, 1604-5), *Pericles* (Q1 1609), and *Two Noble Kinsmen* (Q1, 1634). Other facsimiles of Shakespeare and early modern texts also appear

on the Internet. Perhaps the finest of these sites is the University of Pennsylvania's

Center for Electronic Text and Image, which offers stunning JPEG (Joint Photographic

Experts Group) images of the Furness Shakespeare Library's Q2 *King Lear* (1619) and

portions of its *First Folio*. Other facsimiles available here are the Tate (1681) and Pope

(1723) *King Lear*, Benson's 1640 *Poems: written by Wil. Shake-speare. Gent.*, passages

and woodcuts from Holinshed's *Chronicles* (1577), Heywood's *Fair Maid of the West*

(1631), and woodcuts from Foxe's *Actes and Monuments*. With electronic facsimiles,

about the only editorial decision one needs to make involves deciding on what kind of

image to use, with the choices ranging from scanned images to the highest quality JPEG

ones.

In the discussion that follows regarding machine-readable texts, I will be moving

in a progression from unformatted text (text that contains only content) to formatted text

(text that includes some descriptive information) to encoded text (text that consists of

information about the text as well as the text itself).

For a long time, the most common electronic texts of Shakespeare were ASCII

(American Standard Code for Information Interchange) texts, better know as plain or

unformatted text files. Plain text files are just that – they can be read, searched, or printed

using a file in a word-processing program, or on a CD-ROM, or from the Internet – but,

in general, they are not manipulated in any other manner. Probably the most easily

obtainable plain text edition of Shakespeare on the web is *The Complete Moby™*

Shakespeare, an edition based on *The Stratford Town* modern-spelling edition of 1911,

edited by Arthur Bullen and released on the Internet by Grady Ward. The *Moby*

Shakespeare can be download from a number of sites,

<ftp://gatekeeper.dec.com/pub/data/shakespeare/>, and is the edition upon which the MIT

"The Complete Works of William Shakespeare,"

<http://the-tech.mit.edu/Shakespeare/works.html>, and Matty Farrow's "The Works of

the Bard," <http://www.gh.cs.oz.au/~matty/Shakespeare/Shakespeare.html>, sites are

based. Both sites note, however, that "There may be differences between a copy of a

play that you happen to be familiar with and the one of this server." This is a bit of an

understatement. The *Moby Shakespeare* is derived from a text that is about ninety years

old and contains inaccuracies and unconventional pointing.

The Oxford Text Archives (OTA), <http://sable.ox.ac.uk/>, sells ASCII old-

spelling versions of original editions of Shakespeare's works, prepared by Trevor

Howard-Hill. These editions adopt limited encoding, such as the use of curly brackets to

indicate italic and angle brackets to enclose speech prefixes as seen in the OTA's Q1

Hamlet, which also uses angle brackets to include page numbers. Of course, Q1 *Hamlet*

did not, in fact, have page numbers, pages being identified in early modern texts by their

signatures. The OTA's F1 *Macbeth* contains a bit more encoding, still using the curly

brackets for italic but adding tags for such features as the title, stage directions, scene

divisions, and line numbers; other features such as ornaments, column divisions, titling

fonts, and block letters are not encoded.

The advantage that plain texts had in the early days of the personal computing

revolution was that they could be read by any word-processing program or used on any

platform from mainframe to minicomputer, from PC to Mac, and they could be

exchanged electronically by disks, e-mail, or file transfer. The disadvantage of these

same texts was that they were unformatted texts. If one wanted to represent italic or bold,

one had to use conventions like curly brackets or asterisks or other ASCII characters.

Nevertheless, plain texts were less intended for reading on the screen than for early forms

of textual analysis, with the most basic of these functions being searching for words or

phrases. The editor's task when producing a plain text is to convert that text, whether it

be a "modern" edition or an old-spelling one, from print into electronic form, usually by

transcribing it on a computer and then checking the resultant text for accuracy.

Hypertext editions, found on CD-ROMs and the Internet, look much like their

print counterparts as evident in the five plays (*MND, MV, 1H4, Ham., Oth., and Tmp.*)

included in *The Norton Shakespeare Workshop CD-ROM* and the Oxford edition of *The*

Complete Works of William Shakespeare on CD-ROM from Andromeda Interactive, yet

hypertext editions can go much further than print editions. The *BBC Shakespeare on*

CD-ROM: Macbeth and *The Voyager Shakespeare Macbeth* include imbedded

annotations, audio tracks, film clips, and commentary and notes. The BBC version that

can be packaged with the Bevington *Complete Works* is glitzier and more media savvy

than *The Voyager*, but *The Voyager* far surpasses the BBC with the depth of its

scholarship in the commentary and textual notes by David Rodes and A. R. Braunmuller.

The BBC uses the Peter Alexander text, clips from *The BBC TV Shakespeare*, a BBC

Radio audio version with Anthony Quayle, and BBC interviews with actors, directors,

and critics. *The Voyager* contains the 1993 New Cambridge edition, an RSC

Performance (Thames Productions, 1976) with Ian McKellen, and clips from Orson

Welles's (Republic Pictures, 1948) and Roman Polanski's (Playboy Productions and

Columbia, 1971) films as well as Akira Kurasawa's *Throne of Blood* (Toko, 1958). With

both these CD-ROMs, one can read the text while listening to the audio version, view

clips of various scenes, access commentary and notes at any time, and click on

highlighted words for annotations.

　　　　Hypertext editions on the Internet also encourage forms of non-linear reading.

Bernice Kilman's electronic edition of *The Enfolded Hamlet*,

<http://narp.oed.com/enfolded.html>, has text common to Q2 and F1 in blue, text only in

Q2 in green, and text only in F1 in red. One can read the enfolded version or the Q2

green text or the F1 red text. Another Internet site of scholarly interest is Ian

Lancashire's Renaissance Electronic

Texts <http://library.utoronto.va/www/utel/ret/ret.html>. The RET is a "series of old-

spelling, SGML-encoded editions of early individual copies of English Renaissance

books and manuscripts, and of plain transcriptions of such works, published on the World

Wide Web as a free resource for students of the period." The edition of *Shake-speares*

Sonnets (Q1, 1609) that Ian Lancashire and I have prepared for the RET consists of a

critical introduction, three versions of the text – HTML (for reading on the screen),

SGML (for advanced study), and COCOA (for use with TACT and OCP, text

concordance and analysis programs discussed below) – and supporting appendices. RET

editions provide significant amounts of bibliographical information embedded in each

text. Even the HTML text, the least bibliographically detailed version, records

signatures, forms, compositors, the long-s, ligatures, line numbers, rhyme schemes, and

catchwords. Michael Best's Internet Shakespeare Editions,

<http://web.uvic.ca/shakespeare/>, is more ambitious: "The aim of the Internet

Shakespeare Editions is to make scholarly, fully annotated texts of Shakespeare's plays

available in a form native to the medium of the Internet." The ISA appears to be just

what Greetham had in mind when he wrote approximately seven years ago:

> While computers have been used to research, edit, produce, and typeset printed
>
> critical editions, fully electronic texts, marketed in computer-readable form and
>
> even manipulated by the reader and used to create reader-designed critical
>
> editions, are still in the planning stages – although, there is little doubt that they
>
> will come soon. The very notion of "hypertext," a cumulative electronic storage
>
> of all forms and states of text forming that text's history, will assuredly provide
>
> the raw and combinatory materials for the production of reader- or, more
>
> correctly, viewer-created editions in the near future . . . (121)

All these varieties of hypertext editions are possible because an editor encodes them in

HTML (HyperText Markup Language), thus enabling the effects described above.

Others forms of encoding are used to produce texts for concordance and analysis

programs. The Oxford Concordance Program (OCP), originally developed as a

mainframe concordance program then implemented for micro-computers, and TACT

(Text-Analysis Computing Tools), developed at the Centre for Computing in the

Humanities, University of Toronto, require texts encoded in COCOA, whose "tags are

used to assign values to variables at certain positions in a text" (Lancashire 13).

WordCruncher, developed in the early 1980s at Brigham Young University, employs a

much simpler three-level tagging system. The editor tags or encodes texts to enable them

to be manipulated and analyzed by these programs.

I began this paper by citing Kastan's contention that editing has become a hot

topic of debate because of interest in the "materiality" of early modern texts. Stephen

Orgel notes, for example, ". . . clearly the idea of a book embodying the final, perfected

text was not a Renaissance one, and what the Renaissance practice produced was an

edition in which it was unlikely that any copy of a book would be identical to any other

copy" (23). Thus, an interest in the materiality of an early modern text entails an interest

in what Randall McLeod refers to in one place as "the iconicity of the text" ("UNEditing"

38) and in another, under the pseudonym Random Clod, as the early modern

typographical medium's "complex, ambiguous, contradictory, unhomogeneous" face

("Information" 246). Susan Zimmerman in her "Afterword to the Forum: Editing Early

Modern Texts" summarizes the position of poststructuralist editors:

> As its critics see it, the New Bibliography represents an effort to structure early
>
> modern texts in ways that are inappropriate to the conditions of their production,
>
> to impose an arbitrary order on processes that are fundamentally "unstable" . . . .
>
> According to this view, those agencies which render early modern texts
>
> "unstable" – for example, literary conventions, printing house practices, extra-
>
> authorial interventions (such as the circulation of scribal transcripts), and in the
>
> case of playtexts, playhouse revisions – simultaneously render any concept of
>
> unitary textual integrity untenable, particularly one proceeding from the "original"
>
> intention of the author. It is, then, textual instability itself that contemporary
>
> editions should try to foreground, however, imperfectly, through multiple-version
>
> editions, facsimile editions, hypertext editions, and so on. (71)

In fact, Post New Bibliographers evince less interest in "substantives" (content) and

"accidentals" (orthography) than in what McGann identifies as the linguistic codes (the

words) and bibliographical codes (the typography, layout, paper, order, and so on)

(*Critique*; "What" 23) or what McLeod refers to as lexical items and the system of

graphic codes (Clod 250). Electronic editors who wish to record bibliographical codes as

well as linguistic ones can use SGML (Standard Generalized Markup Language) and

identify every significant feature of an individual text. In the SGML version of *Venus*

and Adonis that I am preparing for the Internet Shakespeare Editions, I identify by

encoding features such as the headpiece by its reference to Plomer, the printer's device

by its reference to McKerrow, each individual piece of type by font type as well as the

long-s and all ligatures. Throughout catchwords, signatures, and forms as well as the

corresponding physical page numbers are tagged. Stanza numbers and rhymes, book

division line numbers and stanza line numbers, running titles, hung words, all are

identified by SGML tags.

Ian Lancashire has argued strongly that the Text Encoding Initiative's "firm

proposals for a standard way to represent textual knowledge in SGML" do provide

"valuable advice on most questions that arise in tagging texts, it remains to be seen

whether the humanities will accept the TEI's proposed standard" (206). Nevertheless,

SGML does enable electronic editors to "represent textual knowledge" at the very least

for archival purposes. As the electronic age continues, the importance of archiving all

these features of material books into electronic form cannot be underestimated, as

Greetham has observed:

> Another textual control over the canon occurred, and occurs, during any major
>
> change in medium. Just as the move from roll to codex (the familiar folded,
>
> stitched book) during the early Christian Era determined the survival of ancient
>
> works into the medieval canon, so later the move from script to print and now the

similar move from print to electronic publishing has determined, and will

determine, what materials are preserved for later study. (107)

In the paper, I have illustrated the variety of electronic text. These texts are made

available through different means. For all these electronic texts, electronic editors must

make all the same decisions as their print counterparts, but they must also encode those

texts for the purpose to which they are to be used and in doing so produce electronic

textual alternatives "that best can aid your action."

Works Cited

Allen, Michael J. B., and Kenneth Muir, eds. *Shakespeare's Plays in Quarto: A*

　　　Facsimile Edition of Copies Primarily from the Henry E. Huntington Library.

　　　Berkeley: U of California P, 1981.

BBC Shakespeare on CD-ROM: Macbeth. CD-ROM. London: ATTICA, BBC,

　　　HarperCollins, 1995.

Braunmuller, A. R., ed. *The Voyager Shakespeare Macbeth*. Commentary by David S.

　　　Rodes. CD-ROM. New York: Voyager, 1994.

Center for Electronic and Text Image. The Furness Shakespeare Library.

　　　<http://www.library.upenn.edu/etext/furness>.

Center for Electronic Text and Image. *The History of King Lear* [1619: Q2]. October 8,

　　　1997. <http://www.library.upenn.edu/etext/furness/lear1619/085.html>.

Center for Electronic Text and Image. *The Tragedie of King Lear* [1623: F1]." October

　　　8, 1997. <http://www.library.upenn.edu/etext/furness/lear1623/309.html>.

Clod, Random [Randall McLeod]. "Information of Information." *TEXT 5* (1991): 241-
    81.

The Complete Moby™ Shakespeare. <ftp://gatekeeper.dec.com/pub/data/shakespeare/>.

Farrow, Matty. "The Works of the Bard."
    <http://www.gh.cs.oz.au/~matty/Shakespeare/Shakespeare.html>.

Greetham, D. C. "Textual Scholarship." *Introduction to Scholarship in Modern
    Languages and Literatures*. Ed. Joseph Gibaldi. 2nd ed. New York: MLA, 1992.
    103-137.

Hinman, Charlton, ed. *The Norton Facsimile of the First Folio of Shakespeare*. New
    York: Norton, 1968.

The Internet Shakespeare Editions. <http://web.uvic.ca/shakespeare/>.

Kastan, David Scott. "The Mechanics of Culture: Editing Shakespeare Today."
    Shakespeare Studies XXIV. Ed. Leeds Barroll. London: Associated University
    Presses, 1996. 30-37.

Kliman, Bernice W. *Enfolded Hamlet*. <http://narp.oed.com/enfolded.html>.

Lancashire, Ian, ed. Using TACT with Electronic Texts: A Guide to Text-Analysis
    Computing Tools. New York: MLA, 1996.

McGann, Jerome J. "What Is Critical Editing?" *TEXT: Transactions of the Society for
    Textual Scholarship*. Eds. D. C. Greetham and W. Speed Hill. Vol. 5. New
    York: AMS Press, 1991. 15-29.

McGann, Jerome J. *A Critique of Modern Textual Criticism*. Charlottesville: UP of

    Virginia, 1992. (Originally publish in 1983).

McLeod, Randall. "Spellbound." In *Play-Texts in Old-Spelling: Papers from the

    Glendon Conference*. Eds. G. B. Shand and Raymond C. Shady. New York:

    AMS Press, 1984.

McLeod, Randall. "UNEditing Shak-speare," *Sub-stance*, 33/34 (1982): 26-55.

MIT. "The Complete Works of William Shakespeare." December 9, 1996. <http://the-

    tech.mit.edu/Shakespeare/works.html>.

Orgel, Stephen. "What is an Editor?" *Shakespeare Studies XXIV*. Ed. Leeds Barroll.

    London: Associated University Presses, 1996. 23-29.

The Oxford Text Archive. *Hamlet [Q1]*. <http://sable.ox.ac.uk/>.

The Oxford Text Archive. *Macbeth [F1]*. <http://sable.ox.ac.uk/>.

Oxford University Computing Services. *Micro-Oxford University Concordance Program

    (OCP)*. Oxford: Oxford Electronic Publishing, 1988.

Renaissance Electronic Texts. *Shake-speares Sonnets 1609*.

    <http://library.utoronto.va/www/utel/ret/ret.html>.

Rose, Mark, ed. *The Norton Shakespeare Workshop CD-ROM*. CD-ROM. New York:

    Norton, 1998.

Shakespeare: His Life, Times, Works and Sources. 1st version. CD-ROM. Films for the

    Humanities and Science, 1995.

Tanselle, G. Thomas. "The Variety of Scholarly Editing." *Scholarly Editing: A Guide to*

    Research. Ed. D. C. Greetham. New York: MLA, 1995. 9-32.

William Shakespeare: The Complete Works on CD-ROM. CD-ROM. Abingdon,

    Oxfordshire: Andromeda Interative, 1996. [The Oxford Edition].

WordCruncher Publishing Technologies. *WordCruncher*.

    <http://www.wordcruncher.com>.

Zimmerman, Susan. "Afterword to the Forum: Editing Early Modern Texts."

    Shakespeare Studies XXIV. Ed. Leeds Barroll. London: Associated University

    Presses, 1996. 71-74.