

**Designing the Oxford Shakespeare:
an interview with Paul Luna**

Edward Ragg & Paul Luna

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Designing the Oxford Shakespeare: an interview with Paul Luna

The Oxford Shakespeare is the most authoritative, and radically revised, collection of Shakespeare's work. This interview charts the genesis of the first computer-generated Shakespeare and the design issues faced by Paul Luna and his colleagues at OUP. The texts discussed are:

William Shakespeare, *The complete works* (Oxford: Clarendon Press, 1986, large edn. released in both old- and modern-spelling versions) (figure 1)

William Shakespeare: *a textual companion* (Oxford: Clarendon Press, 1987)

William Shakespeare, *The complete works* (Oxford: Clarendon Press, 1988, compact edn. in modern spelling only) (figure 2)

All are under the general editorship of Stanley Wells and Gary Taylor, apart from *William Shakespeare: a textual companion* by Stanley Wells, Gary Taylor, John Jowett, and William Montgomery. Single editions of plays with individual editors are published in the Oxford World's Classics series under the general editorship of Stanley Wells. (figure 3)

The interview was conducted on 12 August 1999 at the Department of Typography & Graphic Communication, University of Reading, as part of research toward an MA dissertation in Publishing at Oxford Brookes University: Edward Ragg, 'Controversies of the iconic: the Oxford Shakespeare 1978–1987' (Shakespeare Institute Library, Stratford: catalogue no: q PR 3071).

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ER Were you employed as a designer at OUP prior to the Oxford Shakespeare or were you called in specifically for the project?

PL No, I was already at OUP. It had a centralized design department for all its academic and general books, and I was appointed senior typographer shortly after the point at which the project began to pick up steam. The first designer to work on the Shakespeare project was George Hammond who had joined from HMSO; he worked on it for about a year.

ER Was that prior to Stanley Wells's arrival?

PL No, that was after Stanley's appointment.

ER So at some point in 1978?

PL That's right. At that stage it was assumed somebody would be key-boarding the text on a conventional composition system. George had been preparing specifications for the printing division of OUP, when I took over. However, that more or less coincided with the decision to work from the tapes of Shakespeare plays that already existed in the university, and to process the text through a computerized typesetting system.¹ I took over the design at that point.

ER So what were the major differences between those systems and these tapes – the tapes that were used to construct Trevor Howard-Hill's concordance – how were these keyboarded?

PL I don't know. I assume they were keyed in by either research assistants or other people in the university. The university then had a centralized computing service which used to handle the bulk of the computer work. Obviously people then did not have PCs or Macs on their desks. So any computing they wanted to have done, whether it was on the scientific or the humanities sides, had to be done centrally.

ER When you began work on the project, how did you establish a design brief or working set of conventions? Did you draw on some of the previous attempts to construct an Oxford Shakespeare going back to R. B. McKerrow and Alice Walker, or were entirely new

1. For a more detailed history of the overall Oxford Shakespeare project and the setting of both old and modern spelling editions from the Howard-Hill tapes, see Edward Ragg, 'The Oxford Shakespeare re-visited: an interview with Professor Stanley Wells' *Analytical & Enumerative Bibliography* 12.2 November 2000 (Illinois: The Bibliographical Society of Northern Illinois, 2000), pp. 73–101.

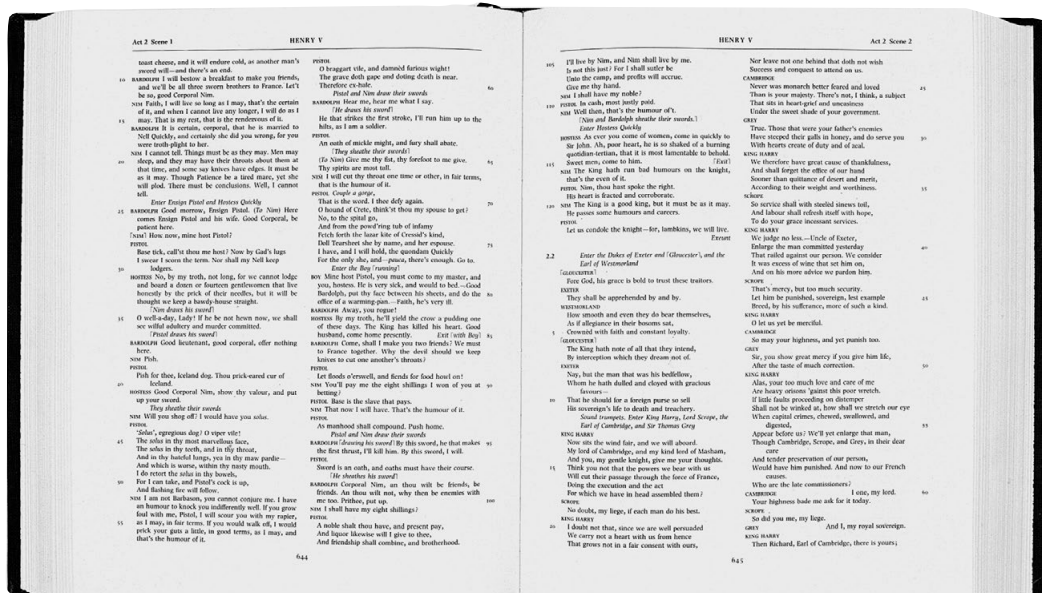


Figure 1. The Oxford Shakespeare: *The complete works*, modern-spelling version. (c.30 per cent linear)

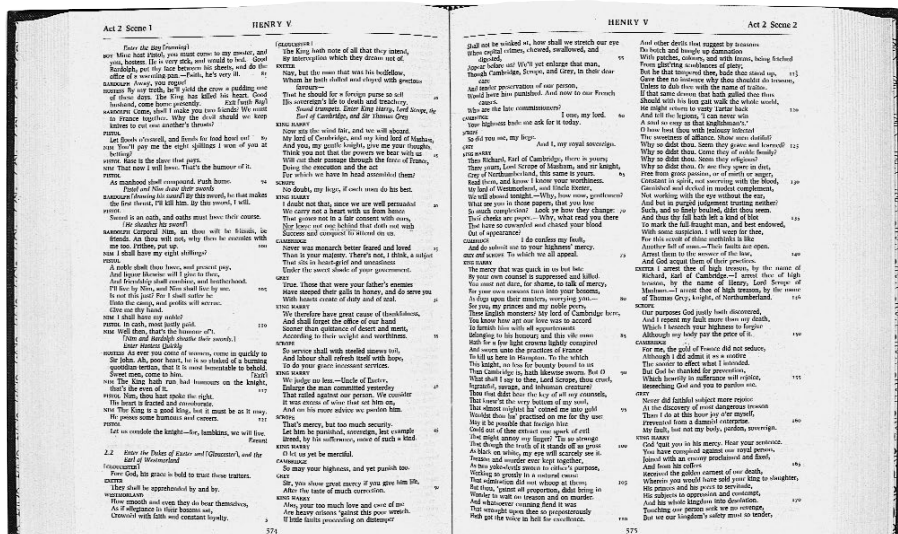


Figure 2. The Oxford Shakespeare: *The complete works*, compact edition. (c.30 per cent linear)

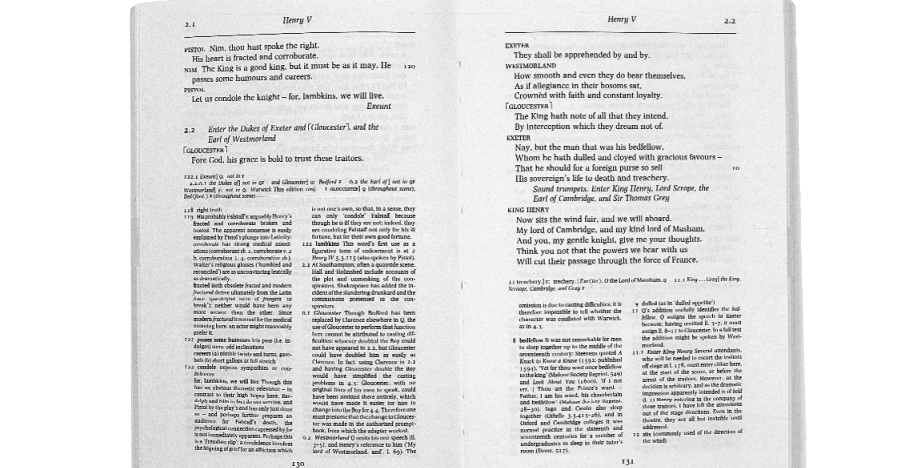


Figure 3. The Oxford Shakespeare: *Henry V*, paperback edition. (c.30 per cent linear)

criteria involved? After all, this was, editorially speaking, supposed to be a very new, a very revisionist edition.

PL There were already plans for different editions which would involve different versions of the plays. But you have to understand the publishing background really. At that point there were two publishing businesses: there was the business in Oxford which published academic books and there was the business in London which published general trade books. There was the Clarendon Press in Oxford and the University Press in London. My arrival at OUP coincided with the gradual merger of those two businesses, the transfer of staff from London to Oxford and the beginnings of the merger of the academic and general trade publishing sides. One of the things that the trade publishing department expected was a compact, royal format, continuing-sale edition. For a long time that was called the *Oxford Standard Authors Shakespeare*.

ER So that was supposed to be the format for the Complete Works?

PL Yes, the *Complete works* in a single volume, that would be unannotated, and physically compact. The other editions they envisaged were a set of annotated single-play volumes. They were called the Oxford English Texts Shakespeare because they followed the editorial principles of the other OETs. OSAs had formerly been edited in London, but were then moved to Oxford; OETs were always edited in Oxford. So publishing precedent determined what the different departments wanted to get out of this project. The big volume *Complete works* was originally envisaged as the annotated edition with its major sale as a college text in the States. There was originally intended to be an annotated edition, both in a larger format and in royal OSA, an old-spelling edition, and an unannotated edition. Stanley Wells could probably confirm this.

ER Yes, he said that because the British tradition of producing Shakespeare single volumes of the *Complete works* involved unannotated editions, the idea was that OUP would surprise the British market by doing an annotated edition which could also be used to glean substantial American sales. But I'm not sure that both annotated and unannotated editions were envisaged.

PL Well, even the 'American college edition' ended up being unannotated.

ER Yes, because the Americans pulled out at the last minute, apparently on the grounds that there was a feeling that the Press would not be able to compete with *The Riverside*.²

PL Yes. We started designing a one-volume annotated edition that was very similar to the *Pelican Shakespeare*, designed by Hans Schmoller, with a similar format (figure 4).³ The small format was, I think, royal (that's 234 × 156mm) and specimens were done for both. We certainly produced specimen pages trying out different styles of speech prefix, indent, and note sizes, to show the notes in one column and whether that was on the inside or the outside of the page. The single-play volumes were always going to be 216 × 138mm

2. *The Riverside Shakespeare*
ed. G. Blakemore Evans (Boston:
Houghton Mifflin, 1974)

3. *Complete Pelican Shakespeare*
ed. Alfred Harbage (Harmondsworth:
Penguin, 1969, 1981) 3 vols.

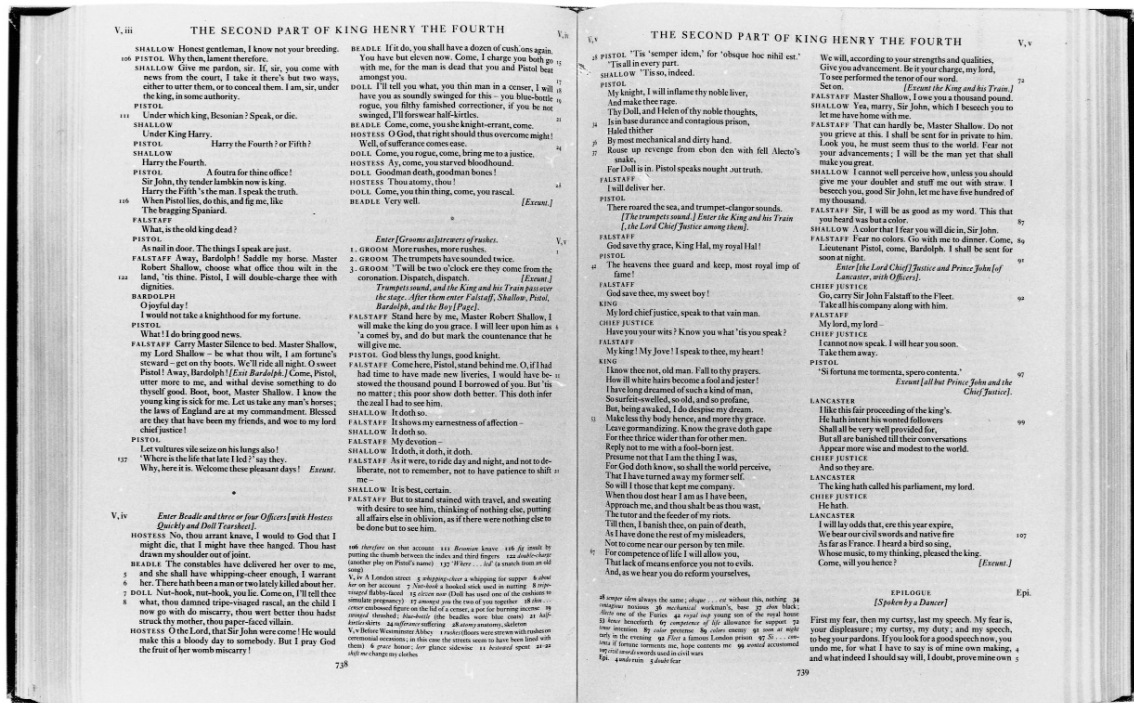


Figure 4. Double-page opening of *The Complete Pelican Shakespeare*. (53 per cent linear)

because that was the standard format of the OET series. These were envisaged as single-column, with multiple banks of annotations: collations explaining textual variations together with the more general commentary. Those single-play editions were the ones that changed least in their design concept, although they did have to come into line with the typographic design of the two *Complete works* editions because we were trying to design those at the same time. Also we were trying to design the things in the abstract; none of the texts had been edited. In fact many of the OETs still haven't been edited. So we were working with sample material that Stanley and Gary Taylor passed on to us – Gary was very much the engine of ideas and Stanley directed the way it would be played.

ER You've mentioned the influence of the *Pelican Shakespeare* and Schmoller's typography. I was wondering whether the *New Penguin Shakespeare* texts, those single-play editions, whether you ever considered adopting their practice of putting the notes at the back which can be an aid for some readers. Was there ever the idea of adapting the OET design in that way?⁴

PL No, I don't recall that. There was never any attempt to make the OETs less academic. They were always the flagship of literary scholarship at OUP. They were supposed to announce their scholarship and they do. If you look at Gary Taylor's *Henry V* there are many pages on which there are only a few lines of text at the top of the page and the rest of the page is taken up with annotation (figure 5).

4. The New Penguin Shakespeare series, general ed. T. J. B. Spencer, associate ed. Stanley Wells (Harmondsworth: Penguin)

ER Wouldn't that, though, be something of a problem for designers? It might look scholarly but it is in fact quite a hindrance to the reader.



Figure 5. Page from *Henry V*, paper-back edition, showing minimum amount of text and maximum amount of annotation. (40 per cent linear)

It's certainly a frequent problem in the layout of, say, the *Arden Shakespeare*.⁵

PL Well, it was quite difficult to make up that volume. I checked all the proofs for it and was responsible for how the text and notes fit on the page. It had such a large ratio of notes to text that you had to make quite a lot of adjustments at proof stage to get things to work. But it wasn't just the scholarly material that proved complex. By today's standards the actual process of getting to see how things would look was frightfully protracted. We did specimens, we drew specifications, we marked up copy and then gave everything to the in-house typesetter who typeset them, output them to film, made ozalid proofs and only then could we look at the results. We eventually did all of this on our in-house typesetting system, but the OETs were always typeset outside.

ER Why was that?

PL It was to separate the OET work from the work on the OSA edition because the OETs had outside editors. Although Gary Taylor did edit *Henry V* most of the OETs were done by outside editors who prepared their own texts and notes – in those days people weren't using word processors, they were just preparing typescript. So the OETs were set from typescript rather than being processed on the text system.

ER So when it came to establishing a design brief, what kind of specimen did you set up? Presumably it was a piece with stage directions, act divisions and so on? I would be interested to know if you worked with a particular play.

PL We used *A midsummer night's dream* because it shows all the normal elements: it has songs and a play-within-a-play.

ER Yes, that's the play they chose as sample for the *Pelican Shakespeare*.

PL However, there was a lot of uncertainty about the final size of the Complete Works. The decision to do it with the final trimsize was taken quite late in the day. The idea was to be big, to appeal to the US market. I don't think anybody took on board the fact that it was going to be that thick. I do remember the absolute horror in the sales department when we had these bulking dummies made up and said 'This is the book you're going to get in the format you have all agreed!' Both Barry Townsend, the production director, and myself thought it was a bit over the top.

ER In that it would be too long and too bulky?

PL Yes, it's just too big, which makes it a desk book; it has to sit on a table. It's not really a portable book. But the pressure seemed to be from the US office: American college textbooks were large format. I think that what you report Stanley Wells as saying is correct. The Press wanted to make a splash, to make a statement that here was an Oxford Shakespeare. I'm sure that's why it must have been so large. But I felt that when the decision was made nobody had

5. The Arden Shakespeare Series, general ed. Richard Proudfoot (Walton-on-Thames: Nelson)

actually sat down and worked out how bulky and frankly how unwieldy an object it would be.

ER What is the actual format of that first hardback?

PL It's a format that we could print at the American printers. It's 279×216 mm.

ER And how does that compare with the smaller, compact version of the *Complete works* that appeared in 1988?

PL That was printed in the UK. That's 234×172 mm. The original format was somewhere between those two. It was 246×189 mm, which is a standard UK trimsize. That's what we would have worked from.

ER So you were working to a format that was not used for either of these two published editions?

PL Yes, for a long time we worked to a format that was between those two.

ER Was it solely a result of marketing and the American market that the larger, unwieldy format was adopted?

PL Yes. I must say that the original design was closer to the 1986 *Complete works* than the 1988 compact edition. The 1988 *Complete works* involves the compromises of a compact version. The layout in the 1986 edition, however, represents Stanley's ideal of a page. For example, the compactness of the 1988 edition results in line numbers being put in the text, which is less satisfactory than in the margins (figure 6). You can't always number the fifth line because the numbering is within the measure, if the line length is too long. But when you have a marginal system there are no constraints.

ER Is it just with verse lines, then, that you have this problem and not prose passages which could be tracked differently?

PL Well, you have got a problem with prose. More often than not you

Figure 6. Comparison of type size, measure, leading, and line-numbering from the 1986 edition (left) and 1988 compact edition.

of it. If I do it, let the audience look to their eyes. I will
move stones. I will condole, in some measure. To the
rest.—Yet my chief humour is for a tyrant. I could play
25 'erc'les rarely, or a part to tear a cat in, to make all
split.
The raging rocks
And shivering shocks
Shall break the locks
30 Of prison gates,
And Phibus' car
Shall shine from far
And make and mar
The foolish Fates.
35 This was lofty. Now name the rest of the players.—
This is 'erc'les' vein, a tyrant's vein. A lover is more
condoling.
QUINCE Francis Flute, the bellows-mender?
FLUTE Here, Peter Quince.
40 QUINCE Flute, you must take Thisbe on you.

QUINCE A lover, that kills himself most gallant for love.
BOTTOM That will ask some tears in the true performing
of it. If I do it, let the audience look to their eyes. I will
move stones. I will condole, in some measure. To the
rest.—Yet my chief humour is for a tyrant. I could play
'erc'les rarely, or a part to tear a cat in, to make all
split. 26
The raging rocks
And shivering shocks
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Shall shine from far
And make and mar
The foolish Fates.
This was lofty. Now name the rest of the players.—
This is 'erc'les' vein, a tyrant's vein. A lover is more
condoling. 37
QUINCE Francis Flute, the bellows-mender?
FLUTE Here, Peter Quince.
QUINCE Flute, you must take Thisbe on you. 40

can only fit your line numbering into the last line of the paragraph. We wrote a routine that stated ‘If you can’t number line 5, then number line 6’.

ER So that was one of the regrettable design aspects to the compact edition?

PL Yes. I think that the page size is certainly better in the 1986 edition. We did experiment with photographic reductions for the 1988 compact, but they didn’t look right. The type was just too small in relation to the competition.

ER Yes, *The Riverside* is fairly large by contrast in terms of type size.

PL Yes, that’s the one set in Janson, isn’t it? We did look at *The Riverside* – we had all these volumes in the office of course. *The Riverside* was the kind of touchstone, I think, particularly for the US side. They would say ‘*The Riverside* has this feature, so why can’t we do the same?’ You can see its influence in having half-tones in the text. They never reproduced that well. They are informative, I suppose, but I think that there we were pretty much driven by what other people had done, not in the way we designed it but in the elements we had to use in the design. I think we drove a nice line with the actual page design.

ER I was wondering whether there were any markedly contrasting design factors when it came to preparing both an old-spelling edition and a modern-spelling edition?

PL We had to prepare extra characters for the old-spelling edition because the typeface we were using was Photina. The original designs were done in Ehrhardt, George Hammond’s specification. But when Richard Russell, who was the Assistant Printer, saw the designs in Ehrhardt, he suggested that he’d like to set some pages in Plantin. In the end we didn’t use either typeface, we used Photina, partly because it drives a line down the middle of those two typefaces. It’s more even than Ehrhardt, its thicks and thins are less exaggerated, but it’s not quite as heavy as Plantin.

Another reason for using Photina was it was a relatively new typeface. Oxford put it in immediately after it was released by Monotype. We set quite a number of books in it and it hadn’t been installed by many other printers. So while it wasn’t an exclusive typeface, it still had some cachet. It was a slightly unusual choice. It also has some very good features: it’s got very small capital letters in relation to its lower case, so where you’ve got a lot of verse, the capitals don’t create a separate vertical line at the left of the column. The italics are even in slope. Photina also works very well in small sizes and we knew that we were going to have to set the annotation in the OETs at 7pt (figure 7). We knew that the range of point sizes was going to be between 7pt and 10pt, so we had to choose a typeface that would be right for that. Also, because Photina was one of the first typefaces for photo-typesetting, the actual fitting of the characters is really much tighter than many other faces, so it’s very compact.

11 sworn brothers ‘companions in arms who took an oath according to the rules of chivalry to share each other’s good and bad fortunes’ (*OED*). At 3.2.43. they are called sworn brothers in filching; but that later qualified phrase does not justify the common interpretation of this unqualified one as ‘brotherhood of thieves’.

Figure 7. Monotype Photina, 7/8 pt.

EHRHARDT PHOTINA

Figure 8. Comparison of Photina and Ehrhardt small capitals (24 pt).

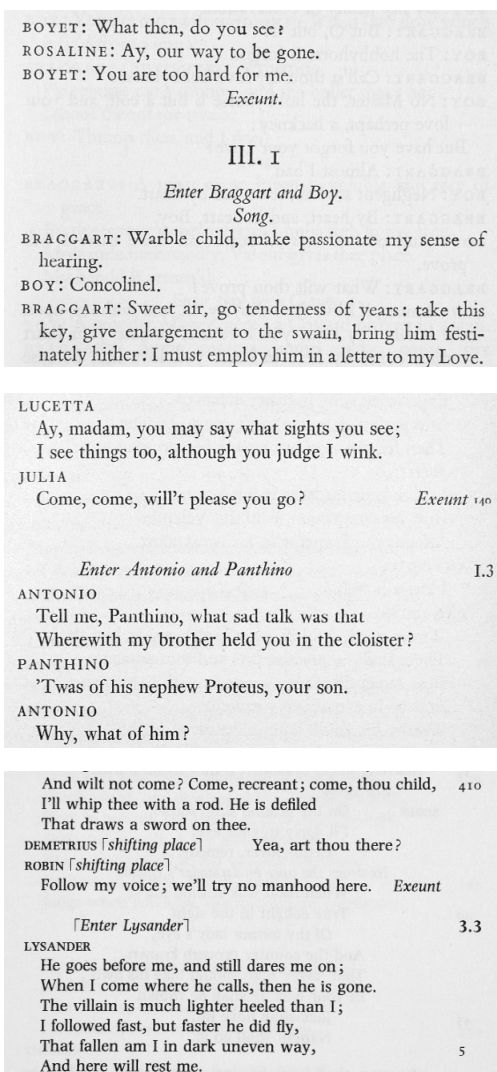


Figure 9. Comparison of scene divisions from the Penguin Shakespeare *Love's labour's lost*; New Penguin Shakespeare *Two gentlemen of Verona*; Oxford Shakespeare *Complete works*. (67 per cent linear)

- ER So there weren't many problems with kerning, then?
- PL No, the character fit is very good. We used the fonts without any kerning pairs. Photina also has these loosely fitted, quite broad figures which in normal book work would be a problem because they stand out from the text, but for Shakespeare are ideal because there are never any figures in the text and you really want nice clear figures for line numbers and references. Photina also has excellent small capitals which we could use for speech prefixes. All the original designs had letter-spaced speech prefixes. But when it came to the pre-production, Ken Beckley, who was then a manager in the composition department at OUP, said 'If there's any way you can avoid letter-spacing those, it will save a lot of time'. You see, they couldn't automate the keyboard commands. They would have had to key any spacing that was different, and that value changed at the beginning and end of every speech prefix. So Ken said 'If you can design it without letter-spacing, we'd be awfully grateful'. Ehrhardt looks dreadful if you don't letter-space the small caps, but Photina's small caps are okay (figure 8).
- ER So it really emerged as the ideal typeface for the project?
- PL Yes, it had a lot going for it.
- ER How symbiotic was your relationship with Stanley Wells in terms of the evolution of design? He described you as a very good and very accommodating colleague. What I'm getting at, I suppose, is what was the real driver, given that it is hard sometimes to distinguish between purely editorial and purely typographic features?
- PL Well, there was some tension between Stanley's editorial principles and what OUP had been used to selling: very traditional-looking, compact single-volume editions with very clear act and scene divisions and tucked-in line-numbering, abbreviated speech prefixes, little differentiation between verse and prose, all the things that Schmoller had been looking at. This was what was expected by the people who were going out to sell these books. So there was a feeling that we were producing something that was a bit too academic, too far from the norm: for example, not having big act and scene divisions but making it look as if the whole play ran on. To be honest, as a designer, you did feel that your scope for doing something glamorous on the page was removed. There wasn't the opportunity to punctuate a page with a nice act-scene division, or use the space to group elements off and make them look more separate. So this very minimalist approach, just a line-space between various sections, did go against the grain. People felt it was a bit laid back. I think Stanley had quite a job to get across the idea that he was trying to present the flow of a performance, the fact that in Shakespeare's day there weren't these great big breaks between scenes in a stage performance, that the curtains didn't come down between the acts (figure 9).
- ER Also I suppose one of the things the Oxford Shakespeare was radical in was redefining the actual positioning of some of those act and scene divisions as, for example, in the final act of *Macbeth*.

PL And in *Pericles*, I think.

ER Yes, well that was an entirely reconstructed text.

PL Then there was the issue of the two versions of *Lear*. If you think of the book trade and the side of publishing that connects with the book trade: ‘Two *Lears*, Oxford must be mad!’ But they got the coup of the new poem, ‘Shall I die?’

ER Yes, of course, Gary Taylor’s discovery in 1985.

PL But there were compromises. Stanley’s single-page concise introductions to each of the plays were added at the last minute because Simon Wratten, the Sales and Marketing Director, said OUP could not publish a single-volume Shakespeare without plot synopses. Stanley Wells wrote them to fulfill that function.

ER It’s an odd decision though, even from a Sales perspective, because some people do not want to know the plot of a play before they read it. But to return to the actual production of the text, could you tell me more about the typesetting and proofreading parts of the projects?

PL We had a central electronic database of the texts. OUP then bought a complete composition system based on the requirements of this project and the on-going requirements of other projects, particularly dictionaries. It was foreseen that there would be a need for in-house text editing and composition. (The Press thought that there was going to be more of this going on than actually happened in the end). Word-processors didn’t exist then, or were more trouble than they were worth. So you had to have a computer system that could drive the typesetting system. There had been various experiments at OUP with doing text-setting on standard mainframe computers, on the computers that did the accounts and payroll and which could perform data-capture and receive typesetting commands. But the interface between the mainframe and the typesetting side, although it was done quite expertly – Richard Sabido, was manager for EDP and Ken Beckley on the film-set side – was quite a painful process because nothing was dedicated. Everything had to be written from scratch every time you wanted to do something.

In fact there was a period of experimentation with one of the very first IBM PCs. Jamie Mackay wrote routines that would number the lines and make the column breaks; and he wrote programs that effectively transformed the coding of the Howard-Hill tapes to provide a drive tape for the OUP film-setting department to send to the Lasercomp, to typeset the pages. Now he did do that. But whether it was because they projected the man-hours it was going to take across 38 plays and realized this was crazy, or whether the Press felt that it would be worth investing in a better system for the long-term, OUP then produced a tender-document and approached different suppliers to procure an editorial system that could cope with the amount of work. Basically, the Press were after something very similar to the systems that were then being installed by American metropolitan newspapers: where journalists could enter copy directly, subs could format text, operators could

make up pages and the whole editorial process could be generally sped up. I recall that OUP went to Bedford Computing, to Miles 33, to Penta; and in the end it was Miles, based in Bracknell, that got the contract. They installed a Miles 300 system, later upgraded to a 400 system. This consisted of a central processing unit and what were called nodes, which were boxes of local processing units, and a number of dumb terminals: units with a screen and a keyboard but no hard-drives and no disk-drives. The hard-drives were down in the IT department along with the back-up drives and the main processing unit.

The whole system was a batch-processing system. So you would log on to your terminal, call up a file, it would eventually come up on your screen – this did in fact take time, because each terminal only had a little local memory – and so it would put just a small amount of text into your screen memory for you to work on. If you then wanted to do something to it, such as change all the spellings of ‘labor’ to ‘labour’, you would set up that command and you would have to go through quite a number of screens to do that, so it was quite command-intensive. If you put me in front of a Miles keyboard now I could still probably remember the key commands! Then you sent the file away, it went into a job queue and it would sit there for ages, you would go and do something else to another file and every now and again you would look at the job queue to see what had happened to the initial file. Eventually it would tell you that it was ready, that the processing had been done. It really was incredibly longwinded. This was fine if you were doing things where you knew what the result was going to be. But it was extremely frustrating if you were designing something and you wanted to see what it would look like. For example, if you thought ‘If I put a bit more space between each of these paragraphs, what will that do to the number of pages?’ you’d have to set it up, send it away and if there was another job going through, it could be hours until the file came back to you. If you do that now in Word, of course, it tells you the pagination immediately. That’s certainly the way the editorial assistant, Christine, had to work: Gary would come along and say ‘Change all *these* to *that* and all *those* to *that*’ and the text would usually have to be modified overnight. You would come back in the morning hoping that there had not been an error – for example, an unexpected end of file – otherwise you’d have to do the whole thing again!

ER So this must have been a very laborious process, particularly when it came to producing old- and modern-spelling texts where you would have had to have had entirely separate files presumably?

PL I think I’m right in saying that the original texts were the old-spelling ones, weren’t they?

ER Yes, they edited the plays in old-spelling first using the concordance tapes and then using a particular ‘search and replace’ program to modernize the spelling.

PL But the modern-spelling text was the first that went into production. We certainly started on that first.

ER But if the old-spelling texts were edited first, why weren't they the first to be composed?

PL Because I suspect that the old-spelling text wasn't publication-date-critical. The people who wanted it would wait for it. Certainly all the primary effort went into producing the modern-spelling *Complete works* for publishing reasons. Also the modern-spelling print quantity was much larger and it was printed in the States. The old-spelling *Complete works* was printed in the UK, which would have meant a shorter lead-time and no shipping time. If there had been a four-month print-bind-ship time for the modern-spelling *Complete works*, there might have been only a six-week print-bind time for the old-spelling *Complete works*. It could have finished two months later and still have been published at the same time. Everything had to be more planned then. Each play went round several rounds of proof. You didn't have laser printers printing everything out in the right typeface. You had generic printers with just one typeface which was distorted until it fitted the character widths of the typeface you were actually using. If a word was in italic it simply got slanted and if it was in bold it got struck twice!

ER So this is what hindered you in attempting to realize what the texts might eventually look like?

PL Yes, what you had to do then was to send a file away to the composition department and wait for a piece of bromide [photographic paper] which would look exactly like the page. The original idea was that we would proof everything on thermal printers (which were rather like fax machines, or halfway between a xerox machine and a fax machine). These proofers were cheap in relation to bromide, but because they were so smudgy and you couldn't write on them, if you xeroxed them they looked even worse. So toward the end of the project I think we just bit the bullet and paid for bromides because otherwise proof-reading for detail would have been very difficult. It's fine making your macro-level decisions, but after a couple of rounds of proof you've got beyond that, you are into fine tuning: 'Will that word fit on that line? If I were to hyphenate it there would I pull that bit back up?' You couldn't tell from the thermal proofs, but you could on the bromides. But the really clever bits were done by Jamie Mackay, the programmer, because the Miles system was nothing like Word or QuarkXPress. You didn't just click 'B' for bold and so on. Although there were commands that did everything, they were commands that were called by codes that you had to type in around the word you wanted in bold. For example, <cf3> meant 'this is a command, change the font to font 3 (which is bold)' and so on. If you wanted to put a special character in like a 'ct' ligature or something, you'd have to type the command for 'change font 11' and then '5', or whatever key had been assigned to that special character. So the actual keying-in of the commands was quite complex.

Many commands were converted from the code on the tapes which designated speech prefixes, prose lines, verse lines, unassimilated verse lines and so on. There was already a great

document describing all the different elements. George Hammond started the design process and I completed designing a typographic format for every element in the book: a speech prefix, a speech prefix that was dubious, an exit stage-direction and entrance stage-direction and so on. All these had specifications. I couldn't key these into the system. Jamie had to write 'formats' for all the specifications, long strings of commands saying: 'change to small caps, change the point size, change the leading, do this, do that, flush it left, flush it right'. You got to know, for example, what the job format code was for an exit stage-direction. But otherwise the text was just littered with job format codes.

The other thing was that the Miles system was programmable to a degree that word processors simply aren't, even with macros. In other words, the line-numbering is handled by a routine which says: 'you will insert the line number, when the line number is five, if the space available for the line number is more than so many points, and if it isn't you number line six' and these were obviously very, very complicated. Plus the text for each play had to be processed overnight and it did take all night for this processing to take place. So in order to make the thing as flexible as possible, in case there was a change-of-mind about anything, the way Jamie wrote the routines was that he never made an 'absolute' command where he could set up a series of 'relative' commands. So he would say 'what you do *here* is based on the point size *there* and the measure *there* and the amount of space left *there*'. That was very computing intensive, because every time the system came to such a point it would have to look back and see what it had done in order to do the right thing. But you can imagine that that is, of course, enormously flexible, because all you need to do to change all those instances is to go back and change that one thing you did in the first place and that worked extremely well.

There was also a pagination routine. Once we had produced galleys to a constant number of lines, Christine Avern-Carr would go through them. Now you've got to have a logical end to a column. For example, you can't have the last line of a speech at the top of a page, or an entrance stage-direction at the foot. There are precise ways of deciding how you can break up text into columns. Though we tried to automate this to some degree, in the end we got Christine to go through manually doing all the marking up on equal-depth galleys. We agreed that there was a minimum and maximum number of lines that would fit into a column. We made the columns equal by $\frac{1}{8}$ pt adjustment to the leading. So if the norm was 59 lines we could either have 58 lines or 60. The proviso was that if you have a 58 in one column you should try to avoid having 60 in the next column. That way we optimized the pagination of every play. We were already checking the line-ends and concluded that we would not let the text-system divide words in the text. I think there are some word-divisions which were manually inserted, but there are not very many of them. We did set the optimum standard word-space to produce even-looking pages and set minimum and maximum word space values.

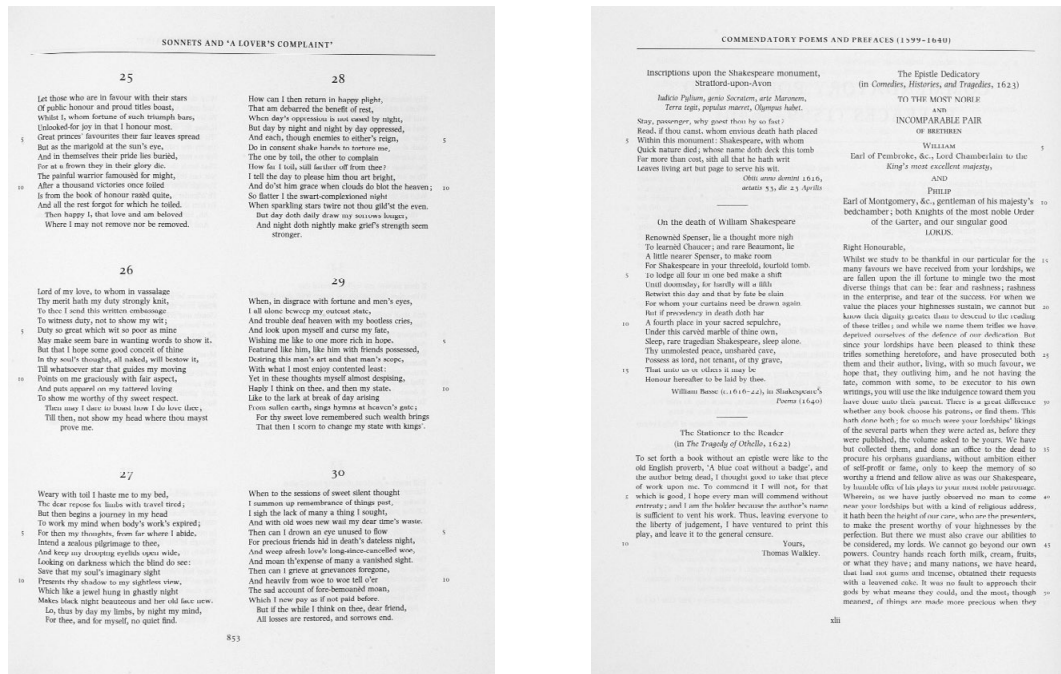


Figure 10. (left) Sonnets 27–30 from the 1986 edition. (40 per cent linear)

Figure 11. (right) Commendatory poems and prefaces from the 1986 edition. (40 per cent linear)

ER So how were those criteria modified for producing the sonnets or the non-dramatic verse? Was that generally less troublesome for the design?

PL Yes, but I don't think that the way the sonnets were laid out was quite ideal (figure 10).

ER I see there is a turned line in sonnet 32.

PL Yes. In retrospect I think I would have preferred to have kept constant alignments for the first line and the numbers, and let the sonnets hang with different amounts of space between them. In fact we set up a format that would justify each column vertically and put the line numbers in the right place by adding or reducing space at the points between the sonnets. But that was relatively easy. It was the 'Commendatory Poems & Prefaces' which involved more hard work.

ER Why did those take so long?

PL There are a large number of short items, and although everything else is so standardized, each one of these is quite different (figure 11). They contain odd things like centred lines, and it was a case of deciding how they were to be set. There must have been an editorial reason for the sequence of them. But it meant that to make the best fall on the page we had to decide what to take over or what to leave complete on any particular page. The text is obviously 'normal', but these pages required headings that do not exist in the plays. This is the sort of interactive design that the systems were least good at. It's easy to do on a desktop system, whereas we had to plan the whole thing in pencil layouts, key it in, see how it came out – whether it actually looked like the pencil layouts – and then, if it was wrong, it would be quite a tedious job to change it. Of course,

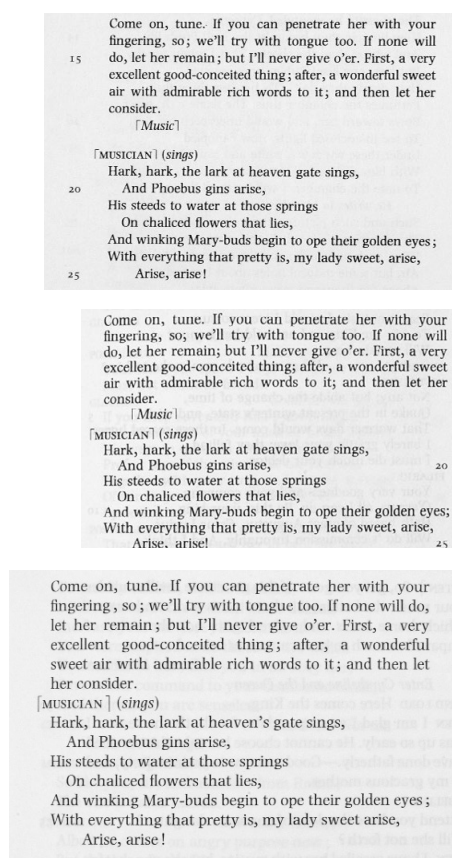


Figure 12. *Cymbeline* 2.3.13–25. Modern-spelling version, 1986 (top); compact edition, 1988; single-volume, 1998. Note the original half-brackets and the later, larger versions; and the inconsistent justification of lines. 16–18 in the single-volume edition. (67 per cent linear)

when you're doing great reams of text the more automated, the more batch-orientated your system is the better it is because you don't have to change everything so frequently. And the commands for elements in the main text could be very complex. For example, with a three-part line, the lines have to overlap to fit the measure. So you would have three lines, one flushed left, one centred and one flushed right, but the overlap would have to be calculated and again Jamie would have written a routine for that. I suppose what I'm trying to emphasize is that each of these features didn't come as an off-the-shelf feature of the composition system. Instead you had to work out what you wanted to do and how to do it.

ER So entirely new routines were having to be generated in order to carry out these design modifications?

PL Yes, that's right. As I said, this programming was done by setting up various job formats which would call up a series of sub-routines. That's how it could be done effectively and efficiently. To avoid error the whole thing was broken down, as a programmer does, into step-by-step stages; and by making sure that you only define as much as you need to in each step. Then you just call up the next step to do the next bit of work. It did mean that Stanley Wells would say 'I want to have this looking like that', in general terms, and I would say 'That means we have to specify everything in terms of typeface, point size, spacing and so on'. Jamie would write the routines that would make that happen, and then Christine would key in that particular set of formats, and then we would go through the loop again.

ER So there were several layers of consciousness as it were?

PL Yes, exactly.

ER So when you started to get through the programming and the type-setting phases and you actually started to get ozalids back, can you remember any particular modifications that had to be made at that stage or did the design start to appear as you had envisaged it?

PL I think it did. I think we must have set at least a complete play in the subsequently abandoned smaller format before we proceeded. Most of the development was carried out in that format, then we went around and scaled everything up.

ER So the change in format was in fact one of the major design changes, or at least resulted in a good deal of modifications?

PL Yes. Another thing that we had to resolve was the fact that the line-ends of the large and small *Complete works* and the line-ends in the single-play volumes would all have to match (figure 12). Of course, this was difficult because the OET texts were edited separately so you have substantially different texts. But you have to get the designers to jump through some hoops, so we did the necessary calculations and we made sure that the point size-measure relationship was a constant across all editions and that all the indents related. Also, the word-spacing parameters were set in such a way that we could guarantee, as closely as one could, when things were being

done in different composition systems: that speech in prose, for example, would line-break in the same way as on the Miles system in Oxford.

ER One thing that Professor Wells mentioned when I interviewed him was his regretting the use of broken brackets within the stage directions. Did that cause a design headache?

PL Yes. Again it was much less easy to produce special sorts in those days. You couldn't just do them in Fontographer. You had to decide what something would look like and then order it from Monotype, wait for it to be drawn and digitized, and if you didn't like it then you would have to pay for something else. That is, we prepared drawings to Monotype specifications, which they then amended and digitized. What I can't remember is what Stanley would have preferred instead of the broken brackets.

ER I think in retrospect that he just wanted to do the directions without the broken brackets because they were pretty confusing. It was found that they conflated the needs of the specialist reader and the general reader detrimentally.

PL Yes, I think that using angle brackets is more usual in a scholarly edition. Originally we intended producing half brackets that were more like quotation marks except with the vertical stroke lengthened.

ER Why were they felt to be better?

PL Well, we had looked at angle brackets, but I felt they looked really aggressive.

ER And they would presumably look quite dogmatic as well?

PL Yes. We had called them half brackets and it may have just come about as a result of a character on someone's keyboard in some system somewhere. I don't know. I do know that many square brackets, including Photina's, have horizontal bars that are too short and I prefer square brackets that have horizontal strokes that are elongated and slightly bolder. So broken brackets look like a kind of hockey stick, don't they? And the horizontal bars are slightly weightier. I don't think that in the end we were terribly happy with them, but they were required. I don't suppose that the average reader will understand why it's a half bracket as there aren't, as far as I can remember, any normal square brackets in the book. But I think that there was a desire to have something customized, or specific to the Oxford Shakespeare (figure 13).

ER It's certainly unseen in any other Shakespeare edition and I suppose, as well as the typeface chosen and the inconspicuous act and scene divisions, it was another way of signalling what was a very radical and rival edition.

PL Yes. The other special character we used was the little Tudor rose for certain act divisions. That was just an off-the-shelf Monotype special sort. That was used to indicate a stronger act/scene division than the normal blank line.

[Exit]
<Exit>
<Exit>
[Exit]
[Exit]

Figure 13. Comparison of brackets (from top): square brackets and angle brackets in the Monotype Photina Postscript font (top); narrow angle brackets from Linotype Mathematical Pi font; square brackets from Monotype Imprint 'A'; and the special half brackets designed for the Oxford Shakespeare.

ER Were you still at OUP when it came to producing the compact edition?

PL Yes. It was like pouring water from one cup into another until it fitted! The good thing was by that time we had set the whole text and I was completely up to speed on what was in it. So it was simply a case of seeing if we could produce the thing. First we tried photographic reductions of the full-size text. But there was still the idea of doing the book in royal and that would have been a huge reduction. In fact the compact ended up in a wider format that Barry Townsend and I developed.

ER Even that makes the text pretty compact already.

PL But importantly it's still 234mm high. We argued that the important thing would be to rack it on the shelves with royal books. It would stick out but all that was needed was the right height. It is 16mm wider than a normal royal book but the same height. We needed the same measure relative to point size, of course, to retain the line-ends. So I calculated combinations of point size and measure that would generate the same lines. That's why the line numbers – although they are set within the column measure – are not allowed to push text on to the next line. They have to move rather than the text because that would change the line-ends.

ER And you would have had unsightly turned lines as well.

PL Yes. However, all of this effort does collapse if somebody says: 'The Oxford Shakespeare Romeo and Juliet act 1 scene 2 line 32' because you don't know whether that person is talking about all these consistent ones or whether they are talking about the separately edited OET text. There were other things that we changed in the compact though. We made the headline relatively more prominent. But the main difference is in the point size/line-feed ratio.

ER I suppose that was to maximize the usage of space whilst drawing attention to the title of each play.

PL Yes. If we'd simply photographed the 1986 *Complete works* it would be 200 pages longer than the compact and would have looked dreadful. So it was actually re-run. But all that needed to be re-run was the last stage really. The files that were used for the typesetting must have been duplicated, the formats were changed to move the line numbering and so on. Importantly, there's less leading relative to the 1986 *Complete works* but the formality of the structural element is the same. You still have the system of speech prefixes being set on separate lines for verse and on the same line for prose: visual things like that. But the headlines are bolder for quicker reference really. Most things were just re-specified to look the same though they were actually smaller.

ER You've mentioned that there are incongruities between the OET texts and the OSA *Complete works* editions. However, the Oxford Shakespeare has become something of a benchmark for Shakespeare design. I'm thinking particularly of S. J. M. Watson's comment that the Oxford Shakespeare 'may be said to have set the

6. S. J. M. Watson, 'Hans Schmoller and the design of the one-volume Pelican Shakespeare' *Typography Papers* 3, 1998, p. 133.

current standard for Shakespeare scholarship'.⁶ Would you agree that the design developed here and educed from Schmoller's work has standardized design in producing Shakespeare editions?

PL Yes, we were looking at Schmoller's edition all the time. We would have done so anyway, because we knew it as designers. But, of course, there was Stanley Wells's connection with the Penguin. I remember sending out a page of the *Complete works* to Hans Schmoller asking for his comments. It came back with a comment to the effect that 'imitation is the sincerest form of flattery', which I was actually quite pleased with. You could have received a worse answer than that! He said we'd adopted practically all the things that he'd done in the Pelican. But there is the exception that Schmoller only numbered the lines he needed to number for that edition, that is for the notes, which is reasonable because you can still extrapolate other line numbers, although with slightly less ease, for any other line. But I think it's more sympathetic to generate them in 5s and 10s. In any case we never produced an annotated *Complete works*.

ER I'd like to ask you about the *Textual companion* and the compilation of that. Was that a complex part of the project to design?

PL No. It was relatively simple. We only did one layout for all the elements in a play because the book replicates the same design 38 times, or however many plays there are. We did need to look carefully at the make-up because of the multi-column settings. As for the diagrams and tables, as in the chronology and the summary of the control texts, we simply left space for those and they were then separately drawn and inserted. With the *Companion* everything that was conventional in the *Complete works* was retained and so it was relatively straightforward.

ER Finally, were there any other particularities to the design process which really aided the overall text's appearance?

PL I've mentioned the benefits of Photina. But it does have one flaw which we had to overcome: its punctuation is not particularly good. The commas are not distinguishable from the full points in small sizes and the same fault applies to the semi-colons and quotation marks. So we didn't use Photina's punctuation. Instead we used punctuation from Plantin, which is very clear indeed. I think this was originally done by Vivian Ridler and his designer Ken Stewart (figure 14). However, if you look very closely at some of the OETs you can see that Photina punctuation has been used instead of Plantin because different typesetters didn't follow the specifications accurately. But the *Complete works* volumes are consistent throughout.

'Hamlet, Prince of
Denmark; Macbeth'
'Hamlet, Prince of
Denmark; Macbeth'

Figure 14. Photina punctuation as designed (above) and as amended for the Oxford Shakespeare.