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The Meaning of *Thunder and Lightning*: Stage Directions and Audience Expectations

As the italics of my title imply, the focus of this study is '*thunder and lightning*', a stage direction used regularly by early modern playwrights and book-keepers, highlighting several important issues related to the original performance and reception of Elizabethan and Jacobean plays.¹ More particularly, the argument of this paper is that the original purpose of these directions in a play text was essentially practical: *thunder and lightning* was the conventional stage language – or code – for the production of effects in or from the tiring house that would establish or confirm a specifically supernatural context in the minds of the audience. This approach necessarily requires acknowledgment of an implicit contrast between modern attitudes to the supernatural – both on and off stage – and the perceptions and expectations of Elizabethan, Jacobean, and Caroline spectators: to generalize, most of us do not believe and most of them did. Consequently, whereas it is usually possible to say that on the unlocalized stage of late sixteenth- and early seventeenth-century London more audience imagination was required for the dramatic experience than in today's theatre, in the case of the supernatural, a pre-Restoration spectator's belief in witches, magicians, devils, gods, and their powers meant less disbelief to be willingly suspended. An awareness of that audience's different conception is therefore useful when considering stage directions that call for effects consistently linked to the supernatural. The related issues of audience expectation, theatrical practice, and thematic implication are thus my concerns in what follows.²

The linking of thunder and lightning with supernatural figures was not theatrical in origin; rather, the effects were a theatrical reproduction of unnatural disruptions generally believed to accompany the appearance and actions of figures such as witches, devils, and conjurers in the real world of the audience. *The Discoverie of Witchcraft*, Reginald Scot's lengthy attempt to discourage belief in witches and other occult figures, effectively conveys the original spectators' perceptions of and expectations about the supernatural.³

Near the beginning, Scot specifically mentions thunder and lightning when he refers to those who believe in witches and their kindred:

Such faithlesse people ... are also persuaded, that neither haile nor snowe, thunder nor lightening, raine nor tempestuous winds come from the heavens at the commandment of God: but are raised by the cunning and power of witches and conjurers; insomuch as a clap of thunder, or a gale of wind is no sooner heard, but either they run to ring bells, or crie out to burne witches; or else burne consecrated things, hoping by the smoke thereof, to drive the divell out of the aire, as though spirits could be fraied awaie with such externall toies. ... But certainlie, it is neither a witch, nor a divell, but a glorious God that maketh the thunder. (1)

...

But if all the divels in hell were dead, and all the witches in *England* burnt or hanged; I warrant you we should not faile to have raine, haile and tempests, as now we have: according to the appointment and will of God, and according to the constitution of the elements, and the course of the planets, wherein God hath set a perfect and perpetuall order. (2)⁴

Scot summarizes the *Malleus Maleficarum*, or 'Hammer of Witches', with its list of 'three sorts of witches' and the powers attributed to them. The first sort, 'hurtful witches', are said to 'raise haile, tempests, and hurtfull weather; as lightening, thunder, etc.' (7). Scot subsequently rejects that idea:

I saie, that there is none which acknowledgeth God to be onlie omnipotent, and the onlie worker of all miracles, nor any other indued with meane sense, but will denie that the elements are obedient to witches, and at their commandment; or that they may at their pleasure send raine, haile, tempests, thunder, lightening. (47)

That Scot feels it necessary to argue at great length and detail against such beliefs indicates how firmly entrenched they were in the general consciousness. His efforts to counter superstitions about witches make it clear, for example, that the 'Thunder and lightning' that begins *Macbeth* (1606) would have signalled to its first audiences that it was indeed 'three Witches' who entered – as would the first words, 'When shall we three meet againe? / In Thunder, Lightning, or in Raine?'⁵ Later when the witches appear, and each time they conjure up an apparition, the direction is for *thunder* only, but evidence from other plays suggests that this is the all-important sound cue for both effects.⁶ Similarly, in the B-text of Marlowe's *Doctor Faustus* (1616),⁷ just before Faustus makes his bargain with the devil there is the direction, 'Thunder. Enter Lucifer and 4 devils, Faustus to them' (225–6), and as he

begins his invocation, 'Thunder' is again signalled (242). The full direction is given at the beginning of the last act and of Faustus's end: '*Thunder and lightning: Enter devils with couer'd dishes; Mephostophilis leads them into Faustus Study*' (1775–6). These two well-known examples are representative of how the stage direction and the effects it signals are used for occult figures and business. And while Scot's arguments and others like them doubtless helped to gradually increase scepticism in the real world, in the theatre a superstition had become a staging convention that in time came to be treated comically or ironically (as in some of the examples below), even as it continued to be effective spectacle.

The early modern conceptions of the presence and influence of the supernatural spelled out by Scot are also central to Tourneur's *The Atheist's Tragedy* (1611).⁸ After D'Amville and Borachio have killed Montferrers, D'Amville boasts of 'a murder bravely carry'd through / The eye of observation, unobserv'd' (2.4.132–3); but almost immediately '*Thunder and lightning*' (139) is signalled. The idea that the two have indeed been 'observed' by divine eyes is implied when D'Amville attempts to calm Borachio:

What!
 Dost start at thunder? Credit my belief,
 'Tis a mere effect of Nature,
 An exhalation hot and dry, invol'd
 Within a wat'ry vapour i' the middle
 Region of the air, whose coldness
 Congealing that thick moisture to a cloud,
 The angry exhalation shut within
 A prison of contrary quality,
 Strives to be free, and with the violent
 Eruption through the grossness of that cloud
 Makes this noise we hear. (2.4.140–51)

When Borachio is not persuaded – 'Tis a fearful noise' (151) – D'Amville tries another tack, explaining the noise as praise from above:

Now Nature shows thee how it favour'd our
 Performance, to forbear this noise when we
 Set forth because it should not terrify
 My brother's going home, which would have dash'd
 Our purpose – to forbear this lightning
 In our passage, lest it should ha' warn'd him

O' the pitfall. Then propitious Nature wink'd
 At our proceedings; now it doth express
 How that forbearance favour'd our success. (2.4.156–64)

Both of D'Amville's explanations depend on what much of the audience believed or at least accepted as stage convention: that thunder and lightning was a sign of intervention in human affairs by the demonic or divine.

Central to the meaning of the direction for *thunder and lightning* is that in an English Renaissance play text it is, as I have said, primarily a sound cue and as such it should be grouped with *flourish*, *alarum*, *sound*, *noise*, *trumpet*, and *music*. Like these sounds, but unlike most other staging business, *thunder and lightning* is cued where it is needed with remarkable regularity. As this consistency indicates, these are the kinds of directions that mattered in the tiring house: they are aimed at or written by the bookkeeper, whose job it was to produce them on cue. The presence of these signals is not, however, necessarily evidence that a play has been annotated for performance, since experienced playwrights at least would have known to include such practical directions, which were part of a common stage language, as will be apparent in the examples to follow. In a theatre largely without scenery or visual scene changes, sounds (and flashes of fire) helped to create the dramatic and often also the thematic contexts. In the case of *thunder and lightning*, the audience was almost invariably prompted to expect the supernatural – and got what it expected.

As to the effects themselves and how they were created, contemporary references and descriptions suggest that probably the thunder was usually produced by drums and the lightning by fireworks. While some theatres might have had a means of creating the sound of thunder by a 'roul'd bullet', as Jonson implies below, there is no evidence before the eighteenth century of a 'thunder run' in which cannon balls were rolled down a wooden trough in the heavens. And there is little in the way of specifics in the stage directions; as with many other kinds of business, the lack of evidence implies that such details were unnecessary because those responsible for the effects knew how to achieve them. This in turn suggests that similar methods were used by all companies in all theatres. Several contemporary references, all derogatory to some degree, provide indications of how the effects were produced. In the Epilogue to his unpublished play, *The Scholars* (n.d.),⁹ Richard Lovelace refers to 'The rosin lightning flash, and monster spire / Squibs, and words hotter than his fire' (13–14). In the Induction to *A Warning for Fair Women* (1598)¹⁰ two figures, Comedy and Tragedy, engage in an insult-contest. Comedy mocks tragedies in which a Chorus tells of a 'filthie whining ghost' that

Comes skreaming like a pigge halfe stickt,
And cries *Vindicta*, revenge, revenge:
With that a little Rosen flasheth forth,
Like smoke out of a Tobacco pipe, or a boyes squib: (54, 56–9)

And Jonson adopts a characteristically superior stance in the Prologue to the 1616 Folio version of *Every Man In His Humour*,¹¹ which advertises the play as one

Where neither *Chorus* wafts you ore the seas;
Nor creaking throne comes downe, the boyes to please;
Nor nimble squibbe is seene, to make afear'd
The gentlewomen; nor roul'd bullet heard
To say, it thunders; nor tempestuous drumme
Rumbles, to tell you when the storme doth come; (15–20)

More apologetic is the Prologue to *Two Merry Milkmaids* (1619):¹²

How ere you vnderstand't, 'Tis a fine play:
For we haue in't a Coniurer, a Deuill,
And a Clowne too; but I feare the euill,
In which perhaps vnwisely we may faile,
Of wanting Squibs and Crackers at their taile. (A4v)

Finally, in the non-dramatic *Astrologaster* (1620),¹³ there is a passage more descriptive than critical during John Melton's condemnation of fortune-tellers:

Another will fore-tell of Lightning and Thunder that shall happen such a day, when there are no such Inflammations seene, except men goe to the *Fortune* in *Golding-Lane*, to see the Tragedie of Doctor *Faustus*. There indeede a man may behold shagge-hayr'd Devills runne roaring over the Stage with Squibs in their mouthes, while Drummers make Thunder in the Tying-house, and the twelve-penny Hirelings make artificiall Lightning in their Heavens. (E4r)

No doubt in practice the effects ranged from the crude and perfunctory to the spectacular and prolonged; but however produced and however realistic, they would, I think, have been satisfying because necessary and expected – part of a commonly understood theatrical code which manifested a generally shared belief.

Of the more than 500 plays written between 1580 and 1642, thirty-eight have stage directions for *thunder and lightning*, often repeatedly, and twenty-nine have directions for *thunder* alone – some are the same plays, making the total about fifty.¹⁴ As noted earlier, *thunder* sometimes actually means both effects, indicating the primary importance of the *sound* in the cue, whereas there are only five plays with a call for *lightning* alone and these refer specifically to flashes of fire. There are also directions for a *storm* or *tempest*, but these are rare and quite specifically refer to a disturbance in the weather – as in Folio *King Lear* (1584, 1655, 1780, 1843, 1942). By contrast, only a very few signals for *thunder* or *thunder and lightning* are purely weather-related – something made apparent when characters wrongly imagine the effects have supernatural origins (as Lear seems to do at 1669–79) and are corrected (as Lear seems to be in the responses of Kent and the Fool at 1695–1700 and 1729–32). It is seldom critically defensible to try to relate a direction to a character's response, since directions and dialogue function at different levels of the play text; but here, however accidentally, *King Lear* appears to illustrate my point. Lear's combined pride and self-pity foster his belief that the malevolent gods are punishing him, and he tries to control this by encouraging them. It is impossible to know if the signals for 'Storm' and 'Storm still' are authorial – certainly they are rare.¹⁵ Nevertheless, the use of 'storm' in the stage direction implicitly confirms that Lear is wrong to assume supernatural intervention; it *is* only a storm – even if thunder and lightning are among the special effects at this point in the play. By contrast, evidence from many plays shows that a stage direction for thunder and lightning is almost always part of a conventional code for staging the supernatural. This, of course, with the proviso that *no* direction for anything, even an entrance, occurs every time or on all similar occasions. But when there is a signal accompanying the appearance of a supernatural figure, or for actions such as conjuring, or for the use of the trap to represent hell, that direction is virtually always *thunder* or *thunder and lightning* – and these signals appear in this context and virtually nowhere else.

The following discussion draws on examples from plays across the period in order to illustrate the ways in which the directions for thunder and lightning provide evidence of play text preparation and performance in a time about which we know far too little and assume far too much. The first examples, from a plot and several play texts with undisputed theatrical provenance, show clearly that this is a sound signal and hence essentially a cue for the tiring house, aimed at or written by the bookkeeper. The lost plot of *The First Part of Tamar Cam* (1596)¹⁶ included a marginal 'Thunder' at the entrance

of a 'spirit' (25). In *John of Bordeaux* (1592),¹⁷ a manuscript with theatrical additions, the bookkeeper added '*Thunder lyghtryng*' (1133–4) at the entrance of devils conjured up by Friar Bacon – possibly via the trap, or 'bowells of the yearth'. *The Two Noble Ladies* (1622)¹⁸ is also a theatrically annotated manuscript with signals for music and other sounds, including thunder linked to supernatural events. On one page it is possible to see both the bookkeeper's '*Thunder*' between two horizontal lines beside the scribal direction '*Thunder. Enter a Spirit, Like a souldier in armour on his breast a sable sheild written on with golden letters*' (1081–2), and his added '*Musique*' between horizontal lines beside '*Recorders play. The Spirit vanishes*' (1099).

Similar evidence is found in one of only two known quartos of the period that are annotated for performance, that of *A Looking Glass for London and England* (1605).¹⁹ At the printed direction, '*They draw the curtaines, and Musicke plaies*', one of the two bookkeepers added '*musick*' in the right margin. The segment continues,

Enter rasni with his Lords in pompe, who makes a ward about him, with him the Magi in great pompe.

RAS. Magi for love of rasni by your art,
By Magicke frame an Arbour out of hand,
For faire remilia to desport her in. (C1r)

Just above the direction the bookkeeper wrote '*Arbour rises*' in the right margin, and beside the speech itself is his '*Lightning*'. After the speech is the printed direction, '*The Magi with her rod beate the ground, and from under the same riseth a braue arbour ...*' and then a moment later the direction '*lightning and thunder wherewith remilia is strooken*', for which the bookkeeper added '*thunder*' in the left margin. Rasni exclaims, 'What wondrous threatening noise is this I heare, / What flashing lightnings trouble our delights?' (C1r).

But such examples of bookkeeper annotations are relatively rare, and most of the evidence for the association of thunder and lightning with the supernatural necessarily comes from quartos – printed texts with no manuscript additions but which may (or may not) incorporate bookkeeper signals; although if not, clearly many playwrights knew the staging vocabulary required.²⁰ The quarto of *Lochrine* (1594)²¹ begins with the spectacle of Ate, an underworld figure, entering '*with thunder and lightning*' (A3r), and later in the play the ghost of Corineus enters with the same special effects, describing them and their implications:

Behold the circuit of the azure sky
 Throws forth sad throbs, and grievous suspirs
 Prejudicating Loocrine's overthrow.
 The fire casteth forth sharpe darts of flames,
 The great foundation of the triple world,
 Trembleth and quaketh with a mightie noise,
 Presaging bloody massacres at hand. (I4r)

The link between thunder and lightning and the powers of evil is articulated in *Grim the Collier of Croydon* (1600)²² both by the direction, *It thunders and lightens; the Devils go forth; Dunston rising, runneth about the stage, laying about him with his staff*, and by Dunstan's accompanying words:

Satan avaunt, thou art man's enemy,
 Thou shalt not live amongst us so unseen,
 So to betray us to the Prince of Darkness:
 Satan avaunt, I do conjure thee hence. (G4v)

In *The Puritan* (1606)²³ Edmond sacrilegiously says, 'I'll tear two or three rosaries in pieces, and strew the leaves about the Chamber', and then at the stage direction '*Thunders*' he cries, 'oh, the devil already' and '*runs in*'. As he disappears Pye-board comments, "Sfoot Captain speak somewhat for shame; it lightens and thunders before thou wilt begin, why when?" (G2v). Because Edmond has been deceived into thinking that the Captain has conjuring powers, he believes the thunder and lightning have a supernatural source. But the staging convention that links the effects with the supernatural would seem to be both capitalized on and treated ironically here, since the audience knows that the Captain has no magic powers and no devil has been conjured up.

The play with the most directions for thunder and lightning is the relatively late *The Seven Champions of Christendom* (1635),²⁴ which has in it the Devil, a Magician, an Enchanter, a Witch, a Succubus, three Spirits, and three Ghosts. Like *Macbeth* and *Loocrine*, this play begins with the special effects accompanying the entrance of an occult figure, here Calib the Witch, who acknowledges it:

Ha, louder a little; so, that burst was well:
 Again, ha, ha; house house you heads you fear-
 Struck mortal fools; when Calib's consort plays
 A Hunt's-up to her (B1r)

Soon Calib conjures the appearance of Tarpax, 'prince of the grisly North', whereupon, '*Thunder and lightning: Tarpax descends*' (B2r; see also C1r). Then two ghosts enter and exit to the same accompaniment (C1v). Later Tarpax and his spirits exercise their powers at the command of Calib to a sequence of thunder and lightning that culminates in the witch's descent through the trap saying, 'Now cleaves the Rock, and I do sink to Hell; / Roar wind, clap Thunder for great Calib's knell'. This is followed by '*Music: the Rock cleaves, she sinks; thunder and lightning*' (C2v). Tarpax reappears later at the behest of the magician Ormandine who, to defeat David (one of the seven champions), conjures up storms that are signalled by thunder and lightning. David defiantly says, 'Ay, let your thunder come, we dread it not; / What, send ye Fire-drakes too to meet with us? / Your worst of horror is best welcome to me' (G3r), and soon after comes '*Thunder and Lightning, Devils run laughing over the stage: Tarpax with 'em*' (H1r). When the enchanter Argalio calls on his familiars and '*Enter spirits, and dance; thunder and lightning*', another character asks, 'Why are these terrors mixed with our delights?' and Argalio replies, 'The angry heavens with common destiny, Thunder, / Reprove my sports' (H4r-v). As this suggests, the sounds can also be interpreted as the voices of the gods.

The association between thunder and the gods, especially Jove/Jupiter, is capitalized on in several plays. In *Cymbeline* (1609) the connection is made clear by the god himself:

Jupiter descends in Thunder and Lightning, sitting upon an Eagle: he throws a Thunder-bolt. The Ghosts fall on their knees.

JUPITER No more you petty Spirits of Region low
 Offend our hearing: hush. How dare you Ghosts
 Accuse the Thunderer, whose Bolt (you know)
 Sky-planted, batters all rebelling Coasts. (3126–32)

Here and elsewhere, the sounds of thunder would probably have masked the noise of the machinery used for lowering or raising figures or objects, but this was not the primary reason for the noise; the special effects occur far more often than do ascents and descents from above the stage or into it.

In *The Revenger's Tragedy* (1606–7)²⁵ the connection between the gods and thunder is more general and perhaps capitalized on by the author in his treatment of Vindice, the play's internal director and producer. In act 4, after another round of plotting with Lussurioso, Vindice righteously says,

O thou almighty patience, tis my wonder,
 That such a fellow, impudent and wicked,
 Should not be clouen as he stood:
 Or with a secret winde burst open!
 Is there no thunder left, or ist kept vp
 In stock for heauier vengeance, there it goes! (H1r)

There is no signal for thunder here, but editors usually add one, and Vindice's words certainly sound like a cue-after-the-effect. But it is also possible that he only imagines it – Hippolito responds, 'Brother we loose ourselves?' (203) – and that the absence of the stage direction, and therefore of the sound, is an indication of Vindice's moral corruption that the original audience would have readily registered. Conversely, at the play's climax, when Vindice and the other revengers murder Lussurioso and his brothers in a dumb show, the gods definitely do speak. And although Vindice still seems to be in control of the interpretation, given the possible absence of thunder earlier, and his eventual punishment for this act of murder, it is worth considering whether the presence of the sound now is intended to suggest that Vindice too is being judged and proleptically condemned:

The Revengers daunce[.]

At the end, steale out their swords, and these four kill the four at the Table, in their Chaires. It thunders.

VINDICE Marke, Thunder?

Dost know thy kue, thou big-voyc'd cryer?

Dukes groanes, are thunders watch-words,

HIPPOLITO So my Lords, You have enough.

VINDICE Come let's away, no lingring. *Exeunt.*

HIPPOLITO Follow, goe?

VINDICE No power is angry when the lust-ful die,

When thunder-claps, heauen likes the tragedy. (I3v)

The equivocal association of thunder and lightning with powers benevolent as well as malevolent is perhaps nowhere more apparent than in *The Tempest* (1613), a play in which these special effects have implications made clearer when one is aware of other uses of the device and the expectations of the audiences for which it was written. It is significant, I think, that like *Macbeth* and other plays, this one too begins with effects which would have prompted playgoers to expect the worst: '*A tempestuous noise of Thunder and Lightning heard*' (2), and until Miranda begins the second scene by saying to

Prospero, 'If by your Art (my deerest father) you haue / Put the wild waters in this Rore; alay them' (82–3), it is likely that the audience would not have questioned the tragic event, given the effects they heard and saw while listening to the desperate sailors. Subsequent occurrences of the effects in the play, although in the context of Prospero's white magic, are nonetheless potent reminders of its darker uses, which would probably have helped to convey – more clearly to the original playgoers than to us – that Prospero is on the edge between one force and another. When Caliban enters with his 'burthen of Wood', there is 'a noyse of Thunder heard', and he says of Prospero, 'his Spirits heare me, / And yet I needes must curse' (1038–9, 1042–3). And everything about the courtiers' later experience should tell them to repent before it's too late. Certainly the special effects that announce Ariel's entrance establish a context that would have made both a vanishing banquet and his warning words credible to an audience:

Thunder and Lightning. Enter Ariell (like a Harpey) claps his wings upon the Table, and with a quiet deuice the Banquet vanishes.

ARIEL You are three men of sinne, whom destiny
That hath to instrument this lower world,
And what is in't: the neuer-surfeited Sea,
Hath caus'd to belch vp you; ...
... you fooles, I and my fellowes
Are ministers of Fate. ... (1583–9, 1593–4)

At the end of his speech Ariel 'vanishes in Thunder' and there is an immediate shift to 'soft Music' (1616); thunder is not signalled again in the play, as from this point the action moves towards resolution and harmony. While any audience can of course detect the change in mood, one familiar with the specific meaning of the use of thunder would have been better able to grasp the thematic implications of these aural effects.

A general observation to be derived from the examples discussed here, and from many others like them, is that no matter how hard modern directors work to recreate the physical environment of, say, the Globe or the Cockpit, and no matter how much a modern performance approximates the original staging, costumes, and acting, it cannot recreate the experience of the spectators who attended the original performances of these plays. This fact is particularly apparent and relevant where the supernatural is concerned, since a modern audience can never perceive the thunder and lightning or the figures and actions linked to these effects in the way that pre-Restoration audiences

did. Thus, whereas Shakespeare and his contemporaries took for granted and capitalized on the spectators' belief in and superstitions about witches, ghosts, and spirits, a modern production cannot do so. Supernatural effects today therefore have an essentially different purpose – to impress rather than to frighten – whether in a production of *Macbeth* or *The Phantom of the Opera*. Moreover, on the page, directions for *thunder and lightning* are now seen as information for the reader as much as for the technical crew; and in the theatre, the ability to imitate or exaggerate real thunder and lightning much more effectively than in the Globe is not the same as reproducing a supernatural 'reality'. Certainly these differences between then and now are particularly and usefully apparent in attitudes to the supernatural and in the stage directions signalling business linked to it; however, it is only a matter of degree between these and other directions in pre-Restoration play texts. If we approach the italics on these pages with the attitude that they meant – and still mean – something different from what we might first assume, we may be able to learn more about how the plays were perceived and understood by the audiences for which they were written.

Notes

- 1 This is a revised and expanded version of a presentation given in the forum 'Piecing out the Imperfections' at the World Shakespeare Congress, Los Angeles, April 1996.
- 2 This paper grows out of my collaboration with Alan C. Dessen on *A Dictionary of Stage Directions in English Drama, 1580–1642* (Cambridge, forthcoming in 1999). Having written the dictionary entries for the many sorts of sound called for in stage directions, as well as for the various kinds of supernatural business, I gradually became aware of a connection between certain special effects and otherworld figures and events, one aspect of which I consider here.
- 3 Reginald Scot, *The Discoverie of Witchcraft* (London, 1594); rpt with notes, glossary, and introduction by Brinsley Nicholson (London, 1886).
- 4 Where possible quotations are from either the original edition of a work or a modern old spelling edition, with only the 'long s' modernized. The one exception is *The Atheist's Tragedy* which is only easily available in a modern-spelling version.
- 5 William Shakespeare, *Macbeth*, in *The First Folio of Shakespeare*, The Norton Facsimile, 2nd ed, prepared by Charlton Hinman with a new introduction

- by Peter W.M. Blayney (New York and London, 1996), cited by Through Line Numbers (TLN). All subsequent quotations from Shakespeare are from this edition. Dates of plays are those given in the *Annals of English Drama* by Alfred Harbage, revised by S. Schoenbaum, 3rd ed, revised by Sylvia Stoler Wagonheim (London and New York, 1989), for when a play was 'most probably first presented' (xvi).
- 6 In plays from 1580 to 1642 there are only four stage directions for *lightning* alone, whereas there are roughly sixty-two for *thunder*. The most common signal is for the combination *thunder and lightning*, which, as we still do, reverses the order of events in nature.
 - 7 Marlowe's *'Doctor Faustus' 1604–1616*, W.W. Greg (ed) (Oxford, 1950).
 - 8 Cyril Tourneur, *The Atheist's Tragedy*, Irving Ribner (ed) (Manchester, 1964). The dating in this Revels edition differs from Harbage, who has 1609.
 - 9 Richard Lovelace, *The Scholars*, in *Minor Poets of the Seventeenth Century*, R.G. Howarth (ed) (London, 1933, rpt 1966).
 - 10 *A Warning for Fair Women*, attributed to Thomas Heywood, Tudor Facsimile Texts, (Amersham, 1912).
 - 11 Ben Jonson, *Every Man in His Humour*, in *Ben Jonson*, vol 3, C.H. Herford and Percy Simpson (eds) (Oxford, 1927).
 - 12 J.C., *Two Merry Milkmaids*, Tudor Facsimile Texts, (Amersham, 1914).
 - 13 John Melton, *Astrologaster* (London, 1620). Introduction by Hugh G. Dick (rpt. Los Angeles; 1975).
 - 14 The source of this evidence is a database of stage directions in the over 500 extant plays written for performance in London between 1580 and 1642. These directions are unique in the Shakespeare canon and, indeed, are rarely used at all. Only eight other plays have a signal for *storm*.
The First Part of Tamar Cam, in W.W. Greg, *Dramatic Documents from the*
 - 16 *Elizabethan Stage*, vol 2 (Oxford, 1931, rpt 1969), no. vii.
Henry Chettle [and Robert Greene?], *John of Bordeaux*, William Lindsay
 - 17 Renwick (ed), Malone Society Reprints (London, 1936).
The Two Noble Ladies, Rebecca G. Rhoads, (ed) Malone Society Reprints
 - 18 (London, 1930).
Robert Greene and Thomas Lodge, *A Looking Glass for London and England*,
 - 19 W.W. Greg (ed) Malone Society Reprints (London, 1932). The annotated quarto is in the University of Chicago Libraries; for an analysis see C.R. Baskervill, 'A Prompt Copy of *A Looking Glasse for London and England*', *Modern Philology* 30 (1932), 29–51. The other quarto is that of *The Two Merry Milkmaids* (with most of act 1 and some of act 5 missing), at the Folger Shakespeare Library. For an analysis see my 'A Quarto "Marked for

Performance": Evidence of What?' *Medieval and Renaissance Drama in England* 8 (1996), 176–210.

- 20 'Staging vocabulary' is Alan Dessen's term; see in particular his *Recovering Shakespeare's Theatrical Vocabulary* (Cambridge, 1995).
- 21 W.S., *Lochrine*, Ronald B. McKerrow (ed), Malone Society Reprints (London, 1960).
- 22 William Haughton, *Grim The Collier of Croyden*, Tudor Facsimile Texts (Amersham, 1912).
- 23 *The Puritan*, attributed to Thomas Middleton, Tudor Facsimile Texts (Amersham, 1911).
- 24 John Kirke *The Seven Champions of Christendom* (London, 1638; stc: 15014).
- 25 *The Revenger's Tragedy*, introduction by MacD.P. Jackson (London and Toronto, 1983). This edition attributes the play to Thomas Middleton, but it is nevertheless catalogued under Cyril Tourneur. Most recent considerations of the issue have agreed that the author is certainly or probably Middleton. Virtually no one now argues for Tourneur's authorship of the play.