THE PRINTING OF SHAKESPEARE'S TITUS ANDRONICUS, 1594

by

Frank E. Haggard
A.B., University of Kansas, 1955
M.A., University of Kansas, 1964

Submitted to the Department of English and the Faculty of the Graduate School of the University of Kansas in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

TABLE OF CONTENTS

Introduction

In 1954 Professor Fredson Bowers declared that "when we consider the millions of words and the books piled on books that have been written about Shakespeare, it is astonishing to contemplate how little of a basic nature has been done to establish his text, and how much remains to do." [1] It is common knowledge that more than a little work "of a basic nature" has been accomplished in the past decade; and indeed some of the discoveries made during this period have been truly striking. But not only has the work of this period provided us with new, much needed information; it has also made it clear that we badly need to know still more "of a basic nature" about Shakespeare's text. It is, then, even more appropriate today than it was in 1954 to notice that "much remains to do." The present study seeks to contribute to our present store of basic information bearing upon the text of Shakespeare. And although the principal focus here will be on the first quarto of Titus Andronicus, nothing so ambitious as the establishment of the definitive text of that play will be attempted, for the nature of the investigation of Titus and other Elizabethan quartos undertaken here is, truly, basic: this essay intends to cast some light upon certain sixteenth and seventeenth-century printing-house practices which were perhaps more common than we have heretofore believed, practices which sometimes may have caused a text

to be altered, and which an editor will almost certainly be obliged to consider when he sets out to establish a definitive text of Titus Andronicus.

The present study needs no apologia; what it does need, however, is some explanation, for it is not always easy to see how a detailed and often laborious investigation of distinctive types, running titles, type shortages, speech prefixes, variant spellings, and the like is in any central way related to establishing the true text of Shakespeare's plays, "cur'd and perfect of their limbs." That this relation is substantial and, to be sure, sometimes essential will be discussed later with some care. But in order to understand the nature and direction of the investigation employed here, it will perhaps be beneficial to look briefly at the nature of the bibliographical investigations and the editing of Shakespeare's work in the past.

About half of the plays in the Shakespeare canon were first published separately in quarto form, all but one of them during Shakespeare's lifetime, before the first collected edition--the First Folio of 1623--appeared. The seventeenth century also saw the publication of F2 (1632), F3 (1664), and F4 (1685); and with regard to these later Folios, each edition was based centrally upon its immediate predecessor and not upon any copy representing any new authority. Although the seventeenth century is generally regarded as less active a period than was the

eighteenth century in Shakespeare editions and attendant textual changes, it nevertheless is of some importance. Indeed, Pollard tells us:

> We have to recognize that the Second Folio . . . in a real sense began the work of lawful and necessary emendation. It is obvious that the emendation was done at haphazard and that numerous glaring misprints and blunders in punctuation passed unnoticed. Nevertheless, it was in 1632 that a start was made in re-editing the First Folio, and thus no survey of the history of Shakespeare's text can be complete which does not take into account the work of these anonymous compositors and correctors. [2]

One of the primary bibliographical problems with F2 is that it is sometimes extremely difficult to determine whether a given variant was produced deliberately by a corrector of the text, or whether it was produced accidentally--or perhaps deliberately--by one of the "anonymous compositors" of whom Pollard has spoken. Allardyce Nicoll, for example, has pointed out that in the Second Folio, "besides the meddling printer, there were three separate men who went over part of the text: one who altered five plays for metrical reasons, one who boldly attacked the comedies in order to improve their stage-directions but got no farther than the comedies, and one who chose certain

of the most popular plays for more careful examination." [3] But even though we sometimes cannot determine with certainty the source of given textual changes, abundant evidence makes it clear that a conscientious, if sometimes sporadic, attempt to clarify, correct, and improve the text was made by Shakespeare's first editor. Black and Shaaber tell us that the earliest editor likely proceeded in this manner:

> He simply read through the text critically, interpreting it to himself to the best of his ability, and tried to clarify what he could not interpret intelligibly, to normalize irregularities, to reconcile inconsistencies, and to bring up to date what was markedly old-fashioned. While he by no means ferreted out all corruptions which modern editors have seen fit to emend, he nevertheless showed considerable alertness, ingenuity, and tact. [4]

But even though the editors of F2 were, in the main, conscientious workers, it is of primary importance to note that they based their text upon its immediate predecessor--and not upon copy representing any fresh authority.

Although fewer changes are noticeable in F3 and F4 than are present in F2, [5] one of the central problems in these texts is the same one that we have noticed in their predecessor: once again it is often difficult to determine the source of any given variant and to say certainly that it was either deliberate or accidental. And in general,

the editor of F3 proceeded in much the same way as did the editor of F2. He simply read a play critically and attempted to clarify and normalize whatever readings seemed in need of change according to his own common sense. And again, like his predecessor, there is no convincing evidence that he engaged in "any consultation of earlier printed texts and, in the superseded changes, just as good evidence of the absence of systematic collation with F1 and the quartos." [6] Of this third Folio the Cambridge editors have said,

> The third Folio . . . is on the whole a tolerably faithful reprint of the second, correcting, however, some obvious errors, making now and then an uncalled-for alteration, and occasionally modernizing the spelling of a word. The printer of course has committed some errors of his own.[7]

Black and Shaaber are inclined to think that "the 'editor' of F4 was the three proof readers employed in the three printing offices in which the book was set up." [8] And although, as we might expect, there is some evidence that the alertness and care of these three men differed, it is true also that their intentions and their general method of editing the text of Shakespeare were much the same as those of their predecessors. And further, like the earlier editors of F2 and F3, the editors of F4 undertook no thorough collation of the early quartos and F1;

in short the copy they used for their edition represented no new authority.

In summary, then, the anonymous seventeenth-century editors or correctors of Shakespeare's plays, even though they often resorted to guesswork, were seriously concerned to clarify and improve the text of Shakespeare for their readers. With regard to the textual authority of their editions, however, it is equally clear that they introduced no new manuscript authority. Indeed,

> there is no clear proof that the revisers had recourse to any printed or manuscript text other than that of the last preceding folio, or to playhouse tradition. It would be difficult to demonstrate that in a given passage they did not do so, but it is quite clear that they could not have done so systematically or even frequently. The later folios sometimes insert in the text a reading which agrees with that of an earlier quarto, and F3 and F4 sometimes restore the reading of F1 and F2, but none of these alterations need be explained as the result of collation with the earlier text; they do not exceed the limits of intelligent interpolation and emendation. On the other hand, clear proof of the absence of systematic collation is found in passages where the reviser clearly understood what was wrong, groped after the true reading as given in the earlier text, but arrived at only an approximation

to it. If he had been collating with an earlier text, he would surely have inserted its reading instead. [9]

The editorial activity of the seventeenth century was, to be sure, small in comparison with that of the century which followed, a period in which a considerable number of important editions of Shakespeare came forth, including the works of Rowe, Pope, Theobald, Johnson, and Capell. But although the eighteenth century saw the publication of a much larger number of collected editions of Shakespeare than did the earlier period, the editorial principles and practices of the eighteenth century with regard to establishing the text are essentially unchanged--until we come to Edward Capell's work of 1768.

Having obtained rights from the publishers of the Fourth Folio of 1685, Tonson, one of the larger early eighteenth-century London publishers, employed Nicholas Rowe to direct a new edition of Shakespeare. Although we still incline to view Rowe's edition of 1709 as the first real "editing" of Shakespeare's plays, Rowe essentially did little more with respect to the text proper than continue the editorial practices observed in F2, F3, and F4 where emendation was largely dictated by common sense and individual literary taste. In the Dedication to the Duke of Somerset which prefaces his text, Rowe sets forth his central intention: "And that he may still have the Honour to entertain Your Grace, I have taken some Care

to redeem him from the Injuries of former Impressions." [10]

Like those of his successors, Rowe's intentions to restore and "to redeem" the text of Shakespeare exceeded by some measure his real labors. In the main Rowe made an effort to add localities for the action, to arrive at more uniform character designations, to add missing tables of Dramatis Personae, and, of course, to modernize spellings further, a task begun in the Second Folio. More important, however, was Rowe's recognition and use of the earlier texts of Shakespeare's plays. In particular he recognized that in addition to the four Folio texts of the seventeenth century, there existed a number of quarto editions of single plays which preceded the publication of the First Folio of 1623. And in at least one instance, Rowe emended his text on the basis of a quarto edition. In the Dedication he remarks that "In some of the Editions, especially the last [F4] there were many Lines (and in Hamlet one whole scene) left out altogether; these are now all supply'd." [11] In fact not "all [were] supply'd." But this is perhaps of less moment than the editor's use of the early quartos. It should be clearly understood that Rowe did not consult the early quartos (and his intention far exceeded his actual practice) because he recognized that they had more authority than F4, the text upon which he based his own edition. Rather, he consulted them only because they offered more variant readings from which he could choose--

by the light of nature and literary taste. And this process of editing (centrally, choosing at random from various editions) in his view, would do nothing less than redeem the text of Shakespeare "from the Injuries of former Impressions."

The next eighteenth-century Shakespeare edition of major importance was, of course, that of Pope; and once again it was Tonson who selected the famous contemporary poet to edit the most famous English dramatist. The direction of Pope's labors was not, in the main, unlike that of his predecessor. Of fundamental significance is Pope's choice of Rowe's edition, that is, the latest edition, as the basis for his own work. Moreover Pope sought to continue what he regarded as improvements only begun in the earlier edition of 1709: Pope maintained the lists of Dramatis Personae; he included localities for the action throughout the edition; he divided all plays into scenes (sometimes following a particular Italian and French custom which led to no less than sixty scenes in King Lear); and he further modernized spellings and punctuation. Although Rowe's edition served as the basis of his own, Pope also set out to consult several early quarto editions and a copy of F1. Like Rowe, however, he consulted these earlier texts not because they represented a higher authority than Rowe's edition but because they offered a greater variety of readings. Moreover, Pope did not consult the early

editions systematically and thoroughly; rather he consulted them at random and, most often, when his taste was dissatisfied with the reading supplied by Rowe's text, particularly with regard to prosody and diction.

Theobald publicly attacked Pope's edition not long after it was published in a work entitled: Shakespeare restored: or, a Specimen of the Many Errors, as well Committed, as Unamended, by Mr. Pope in his Late Edition of this Poet, Designed not only to correct the said Edition, but to restore the True Reading of Shakespeare in all Editions ever yet publish'd. This work, which centered upon Hamlet, preceded Theobald's own Shakespeare of 1733 by about seven years, during which time Pope had castigated his critic. Theobald did make many original emendations in his text, some of them brilliant. Moreover he set out to consult various early editions of the plays, including some of the quartos, but only for the same reason that Pope and Rowe consulted them. And Theobald, like his predecessors, consulted these early editions not in any systematic manner but rather only when he was displeased with Pope's reading. And surely the most significant and indeed distressing mark of his work is that he based his edition essentially upon Pope's--once again the latest edition of Shakespeare.

Little need be said of the editions of Hanmer in 1743-4 and Warburton in 1747. In neither case did the

editor seriously consider the important matter of the relative authority of the various editions of Shakespeare--from the early quartos and the First Folio to the latest, most up-to-date eighteenth century work. Both editors, like their predecessors, sought mainly to modernize their texts for an eighteenth-century reading audience; and both moreover continued the practice of basing their works directly upon the most recent editions.

In April, 1745, Samuel Johnson wrote his Miscellaneous Observations on the Tragedy of Macbeth, and along with these observations were printed the first, brief proposals for his own edition of Shakespeare. A short time before this pamphlet was printed, however, Hanmer's edition came out and Johnson added to his Observations some "Remarks on Sir T. H.'s Edition of Shakespeare." Moreover Johnson learned at this time that Warburton was also working on an edition of Shakespeare so he set aside the plans for his own work. His plans, however, were not discarded. Several of his Rambler essays of this period contain critical judgments which later became a part of his Preface; in 1753 he supplied some prefatory material for Lennox's Shakespeare Illustrated; in June, 1756, about a year after he had finished his Dictionary, Johnson published a second set of Proposals. And in October, 1765, after nine years of repeated hopes and promises that completion was only a few months away, Johnson's eight-volume edition was published by what Boswell later called a "Caesarian operation." [12]

Johnson's Proposals, and especially his Preface, have been much celebrated for the strength and wisdom of their critical judgments. Also important are Johnson's remarks on the fundamental importance of a purely textual study of Shakespeare's plays. Johnson once remarked to Sir Joshua Reynolds, "There are two things which I am confident I can do very well: one is an introduction to any literary work, stating what it is to contain, and how it should be executed in the most perfect manner; the other is a conclusion showing from various causes why the execution has not been equal to what the author promised to himself and to the publick." [13] And in his Proposals Johnson surely did the first thing "very well." He displays an acute awareness of at least some of the special problems connected with the text of Shakespeare, and he sets these forth with admirable conciseness:

> The business of him that republishes an ancient book is to correct what is corrupt and to explain what is obscure. [14]
>
> The corruption of the text will be corrected by a careful collation of the oldest copies.
>
> The editor will endeavor to read the books which the author read, to trace his knowledge to its source, and compare his copies with their originals.

Moreover in his Preface he touches upon yet another crucial problem for any editor of Shakespeare, a problem which, lamentably, was seldom considered by Johnson's contemporaries and predecessors. In reference to Theobald he states: "In his enumeration of editions, he mentions the two first folios as of high, and the third folio as of middle authority; but the truth is, that the first is equivalent to all others, and that the rest only deviate from it by the printer's negligence." [15] Although Johnson was, perhaps understandably, too severe in his castigation of Elizabethan printers, on the more important matter of the authority of F1 he was of course correct.

So much for Johnson's understanding of some of the problems connected with Shakespeare's text and his sometimes sound proposals. And what of his performance? Unfortunately it fell far short of his intentions. Johnson did consult a copy of the First Folio, but he had only a few of the early quarto editions. And still more significant was his use of Warburton's edition as the real basis for his own work, which doubtless led him to incorporate errors from that work as well as from Theobald's second edition on which Warburton's was based. In summary, Johnson's edition is no great improvement, textually, over earlier eighteenth-century editions, and the great merit of his work derives not from his restoring the text of Shakespeare but rather from his excellent Preface, his notes, and the critical judgments on individual plays.

That Johnson was aware of some of the textual shortcomings of his edition is clear, for in the Preface he declares: "Perhaps I may not be more censured for doing wrong than for doing little; for raising in the public expectations which at last I have not answered . . . . I have indeed disappointed no opinion more than my own." [16]

The last eighteenth-century edition to be mentioned here is the ten-volume work of Edward Capell in 1768. Although not the last of the period, it is one of the most notable editions of the century. Capell was less than favorably impressed with Hanmer's edition of 1744, and he seems to have resolved to do a much more thorough job of restoring Shakespeare's text than had yet been accomplished. Consequently he set out to collect as many of the early Shakespeare editions as possible; and the number he succeeded in gathering was truly impressive. "In a few years he had copies of all the quartos which had been previously recorded except six, and a further twelve which up to that time were unknown." [17]

Capell's edition did not receive from his contemporaries the attention and praise accorded the earlier works of Pope and Johnson. Indeed Capell's edition suffered not merely from lack of praise; it was in fact subjected to much adverse criticism. This was

due in part to the general arrangement of the edition: in addition to explanatory notes, there were errata lists and sections of Various Readings. The reader, then, was obliged to consult first one section, and then another in addition to the actual text which was referred to by page and line number, although the lines of the text were not in fact numbered. In addition to this rather cumbersome scheme, the comparatively small number of explanatory notes did not impress many eighteenth-century readers. In short, Capell's "preoccupation with the text unfortunately ran counter to the current vogue for an anthology of the notes of earlier editions to which the last contributed comments or additions. Capell's stock was therefore low on account of this matter." [18]

Not only were Capell's readers forced to shift their attention from one section to another within his edition, but they were also referred at times to his Prolusions of 1760 [19] in which he explained certain "new pointings" and "marks." This work is valuable, however, for yet another reason, for it is here that Capell first sets forth some of his basic editorial principles:

> From what editions the several pieces were taken, is very faithfully related at the end of each piece [the book included Edward III, Overbury's Wife,

> and Sir John Davies' Nosce Teipsum]; and the editor thinks he may with confidence affirm, that they are the first, and best, and only ones worth consulting. When a poem was to be proceeded upon, the editions that belong to it were first collected; and with what care, let that minuteness speak which may be seen in the various readings: In the course of this collation it well appear'd, that some one edition was to be prefer'd to others: that edition therefore was made the ground-work of what is now publish'd; and it is never departed from, but in places where some other edition had a reading most apparently better; or in such other places as were very plainly corrupt, but, assistance of books failing, were to be amended by conjecture. [20]

Capell has justly been called the first great editor of Shakespeare. And not without reason, for his edition surely marks the end of the old eclectic editorial tradition. Capell recognized and was seriously disturbed by the practice of basing a text upon its most immediate predecessor, a practice carried out by the editors of F2, F3, and F4 as well as by Rowe and his successors in the eighteenth century. And in his Preface Capell speaks lucidly on this matter:

> The superstructure cannot be a sound one, which is built upon so bad a foundation [F4] as that work of

> Mr. Rowe's; which all of them, as we see, in succession, have yet made their cornerstone: The truth is, it was impossible that such a beginning should end better than it has done: the fault was in the setting out; and all the diligence that could be us'd, joined to the discernment of a Pearce, or a Bentley, could never purge their Author of all his defects by their method of proceeding. [21]

Capell, then, was one of the first Shakespearian editors to recognize that the old eclectic principles should not be applied to problems regarding the transmission of Elizabethan texts, that reprints of these Elizabethan editions can do nothing but deteriorate. And again in his Preface he tells us that

> he had not proceeded far in his collation, before he saw cause to come to this resolution;--to stick invariably to the old editions, (that is, the best of them) which hold now the place of manuscripts, no scrap of the Author's writing having the luck to come down to us; and never to depart from them, but in cases where reason, and the uniform practice of men of the greatest note in this art, tell him--they may be quitted; nor yet in those, without notice. [22]

In short is is undeniably clear that Capell was

the first eighteenth-century editor to understand some of the basic problems involved in the transmission of Elizabethan texts; and that he was also much more careful and systematic in working out his text of Shakespeare than had been his predecessors in the eighteenth century and before.

To sum up briefly, the eighteenth century, with the notable exception of Capell, did little that now seems to us right toward freeing the text of Shakespeare's plays from corruptions; indeed through most of the century almost the reverse took place: further corruption was consistently introduced into the text by editors who, again excepting Capell, based their works upon the most recent editions rather than the best early ones. This is not to suggest that the century contributed nothing. On the contrary a good deal of work was done which was aimed principally at making Shakespeare available to a sizeable reading audience. Spellings were modernized; stage directions and localities of action were supplied; scene divisions and lists of Dramatis Personae were introduced; in short, the abiding concern was to bring the plays up to date for their audience rather than to restore what Shakespeare himself had actually written. And the editors of the eighteenth century almost invariably based their emendations not upon the early editions because of their higher textual authority but upon individual literary

taste, operating within the old eclectic principles.

The nineteenth century was not, in comparison with the eighteenth, a period of particularly active editorial work. The most important edition of the century, the Cambridge edition of 1863-66, and its one-volume version, The Globe (still the standard text today for reference), can be properly viewed as "the culmination of the classical tradition of eclectic editing which had flourished in the eighteenth and nineteenth centuries." [23] That is, although the Cambridge edition was generally considered at the time to have satisfactorily established the text of Shakespeare, in fact no truly careful bibliographical investigation was focused upon the text. Indeed at the close of the century most of the central editorial principles as well as much of the method of editorial emendation and bibliographical investigation did not differ radically from the work of the seventeenth and eighteenth-century editors. And finally, the nineteenth-century editors, like their precedessors, were not at all optimistic about the possibility of recovering what Shakespeare actually wrote. Thus the Cambridge editors declared: "We commend a study of the text of Richard III to those, if such there be, who imagine that it is possible by the exercise of critical skill to restore with certainty what Shakespeare

actually wrote." [24] Indeed until the end of the nineteenth century, the old view that the early quartos and the Folio Shakespeare were hopelessly corrupt still prevailed. Certainly one of the most lucid examples of this attitude, and one which directed and, in a sense, limited the investigations of editors long after it was set forth is Dr. Johnson's now famous declaration of despair:

> To have a text corrupt in many places, and in many places doubtful, is, among the authors that have written since the use of types, almost peculiar to Shakespeare. Most writers, by publishing their own works, prevent all various readings, and preclude all conjectural criticism . . . .
>
> But of the works of Shakespeare the condition has been far different: he sold them, not to be printed, but to be played. They were immediately copied for the actors, and multiplied by transcript after transcript, vitiated by the blunders of the penman, or changed by the affectation of the player; perhaps enlarged to introduce a jest, or mutilated to shorten the representation; and printed at last without the concurrence of the author, without the consent of the proprietor, from compilations made by chance or by stealth out of separate parts written for the theatre: and thus thrust into the world surreptitiously and hastily, they suffered another depravation

> from the ignorance and negligence of the printers, as every man who knows the state of the press in that age will readily conceive.
>
> It is not easy for invention to bring together so many causes concurring to vitiate the text. No other author ever gave his works to fortune and time with so little care . . . no other editions were made from fragments so minutely broken, and so fortuitously reunited; and in no other age was the art or printing in such unskilled hands. [25]

The same central view of Shakespeare's text prevailed in 1902 when Sir Sidney Lee edited the Oxford facsimile of the First Folio. Indeed in his introduction Lee echoed Johnson's earlier condemnation of the unskilled Elizabethan printers and spoke once again of the long corrupted text of our greatest poet, a text which likely would never be accurately restored.

But it was not long before textual studies were marked by a new direction and a fresh optimism. Although 1909, the year in which Pollard published his Shakespeare Folios and Quartos, is often marked as the beginning of this new direction in textual studies, it was not Pollard alone who directed and gave energy to the movement. Ten years earlier when they were still undergraduates at Trinity College, Cambridge, McKerrow and Greg were formulating plans for extensive investigation and editing

of Elizabethan texts. That their plans were later fulfilled, and that they, along with Pollard, contributed enormously to Shakespearian textual studies is now a familiar and remarkable story.[26]

To be sure the nature of the investigations and the editorial principles of these three men--often referred to as the triumvirate of Shakespearian bibliography--differed significantly from those of earlier scholars and editors. And perhaps the most fundamental difference was their belief that every scrap of evidence pertaining to <u>individual</u> plays ought to be systematically studied before the text of that play is edited; in short, taste alone is <u>not</u> a valid primary reason for emendation. In reference to the kind of investigation and subsequent emendation which had characterized Shakespearian textual scholarship since the seventeenth century, McKerrow once declared, "Until some curious inquirer makes a thorough investigation into all the technical details of Elizabethan printing, and from this and a comparison of handwritings arrives at some definite statement of the relative probability of various misreadings and misprintings, emendation must remain in much the same state as medicine was before dissection was practiced."[27] And Greg, in a review of Churton Collins' edition of Greene, stated, "It is high time that it should be understood that so long as we entrust our old authors to arm-chair editors who are

content with second-hand knowledge of textual sources, so long will English scholarship in England afford undesirable amusement to the learned world." [28]

Specifically, these three scholars focused a major share of their attention upon the copy used by the printers of the early editions of Elizabethan plays. That is, they recognized that an understanding and a painstaking investigation of the nature of the copy was fundamental to the determination of the relative authority of the edition printed from it, and so to the subsequent work of emendation. Moreover they countered much of the pessimistic attitude which had heretofore viewed Shakespeare's text as hopelessly corrupt. And they questioned the long-held view that the early quartos simply had no authority. For example, Pollard declared:

> As we have seen, a curious vein of pessimism has caused many scholars, especially during the last thirty years, to enlarge the reference, in the preface to the First Folio, to "diuerse stolne and surreptitious copies" from a verifiable statement, that even such plays as had been maimed in the quartos were presented in sound texts, into a general accusation casting the slur of surreptitiousness on all the quartos indiscriminately. [29]

And they went on to make it clear that very few of the early quartos had in fact been pirated, and indeed two of those were soon replaced by good editions. They stripped away much of the condemning criticism of the Folio. And they proposed that some of Shakespeare's plays were almost certainly set from Shakespeare's own autograph manuscripts, or "foul papers." Indeed this new bibliographical direction, under the leadership of Pollard, McKerrow, and Greg, so much influenced editorial practice and principle that for a while it seemed that most if not all of the fundamental problems surrounding Shakespeare's text would be quickly solved.

It was not long, however, before scholars recognized that a good deal of work remained to be accomplished, and a kind of work not given much attention by Pollard, McKerrow, and Greg, and their immediate followers. For although some remarkable bibliographical discoveries were made by the triumvirate, it is not unfair to say that the major share of their attention was focused upon the nature of the copy from which the early printed Elizabethan plays were set. And although scholars and editors had long recognized, or perhaps had admitted with some despair, that these plays likely were altered during the actual process of printing, Pollard, McKerrow, and Greg in fact devoted relatively little attention to this particular problem.

One of the first scholars to call special attention to the really profound dimensions of the whole matter of printing-house alteration of Elizabethan texts was Dr. Alice Walker. In 1956, while reflecting upon the present state of textual attitudes and the nature of textual investigations already accomplished, she said:

> Earlier in the present century when the first gigantic strides were made towards recognition of the kind of copy from which early good quarto and Folio texts were printed, the immediate reaction was one of confidence. It seemed as if, given reasonable care over proof-correction (and this was assumed), there could not be much wrong with good substantive texts which familiarity with the secretary hand might not put right, since even casual proof-reading with copy would have provided a safeguard against omissions and interpolations, anticipations and recollections detrimental to sense and "absolute numbers." The assumption that proof was read with reasonable care was the keystone of conservative editorial theory, but it has recently been badly shaken by what Hinman has so far published about Jaggard's proof-reading of the Folio. If Jaggard's preoccupation, throughout the Folio, was with typographical blemishes and not with fidelity to copy, then the character of the compositors who set the type

> is as important as the character of the copy itself. In recent years, recognition of the need to know all that can be discovered about compositors, press-work, and proof-reading has, in fact, undermined in some ways the textual theory of the pre-war years. [30]

In the decade following Dr. Walker's statement, a good deal has been learned of various printing-house practices which could affect a text (and some of these practices which did indeed sometimes affect a text will be discussed more fully in Chapter II). We should note here that Professor Hinman's now completed work on the First Folio has made it eminently clear that proof was not ordinarily read either carefully or regularly. And this discovery has required us to re-examine some of the principal techniques upon which textual study has hitherto depended so much. If it were true that proof had been read systematically and "with reasonable care," then to emend the misreadings in a text (and many were indeed emended convincingly), editors could and in fact did rely primarily upon a thorough knowledge of the English secretary hand. And yet we now know that simple misreadings are only one kind of corruption, and that in fact most of the corruptions an editor must deal with simply cannot be properly classified in this way. An editor is also required to consider substitutions, omissions, interpolations, transpositions, and the like.

For it is now undeniably clear that the compositor who set the play into type--and not the proofreader--is the person primarily responsible for the fidelity of that printed text to its copy.

The bibliographical scholarship mentioned by Dr. Walker and demonstrated with precision in a number of recently published studies, then, focuses principally not upon the paleographic evidence which scholars like C. J. Sisson exploited [31] but rather upon the evidence derived from a careful and rigorous examination of the printing of a text. And this particular kind of evidence can often provide a startling amount of detailed information about how a given play was printed--How many compositors set the play into type? In what order were the sheets (and perhaps individual pages) set into type and printed? Did the printing of the play proceed uninterrupted or did delays occur?--these are just some of the questions which can sometimes be answered, and not infrequently the answer is based upon evidence that is virtually irrefutable.

Two special points regarding this kind of bibliographical investigation should be mentioned here. First, this centrally analytical technique of investigation has been criticized for discarding or even disdaining earlier techniques of investigation, particularly those based essentially upon literary judgment and used by so many of the earlier editors of Shakespeare. The criticism is

undeserved. The new movement seeks not only to extract what is useful from the older approaches but to augment them with the newer analytical techniques in order to establish as closely as possible the truest text of a play. And second, it has been suggested that this new kind of analytical bibliography is a technique of rather limited usefulness. This is, very simply, an imprudent suggestion. While it is true that the First Folio has been rigorously examined, it is well to remember that the Folio offers an authoritative text for only about half the plays in the canon. The remainder are, in the main, only reprints of earlier substantive quarto editions. To date only a very few of those quarto editions have been subjected to the same careful, thorough investigation which was focused upon the Folio. It is clear, then, that at present we know little about the printing of the early Shakespeare quarto editions and about how much these printed texts were modified by the compositors who set them.

The present study seeks, in general, to add to our present knowledge of the methods used in printing quarto editions of Elizabethan plays. In particular some of the newer techniques of analytical bibliography will be focused, principally, upon the first quarto of Titus Andronicus, the first of the Shakespeare quartos to be published (in 1594) and our only substantive text for the play. As a corollary to the investigation of Titus, the printing

of other early quarto editions will also be discussed. The primary objectives of this study, then, are: first, to demonstrate the usefulness of several techniques of bibliographical investigation which have not heretofore been widely applied to quarto texts; second, to add to our presently limited knowledge of the printing of quarto editions of Elizabethan dramatic texts; and third, to make available to editors of Titus Andronicus as much new information as possible about the printing of the authoritative first quarto of that play.

Quarto Printing

Recent studies employing bibliographical techniques not hitherto used have cast some much-needed light upon Elizabethan printing-house methods. And certainly one of the most important discoveries to be made concerns the practice of printing by formes. For many years, indeed until only very recently, scholars and editors assumed that first editions of Elizabethan books were normally set into type seriatim; that is, a compositor set his pages of type consecutively, or in the same order in which the copy presented them--pages one, two, three, etc. throughout the book. On the other hand, it has long been recognized that mere reprints of a book, say a second quarto reprinted from a first quarto, might often have been set by formes; that is, a compositor set the four pages of the outer forme--pages one, four, five, and eight--and he then set the remaining four pages of the sheet, the inner forme--pages two, three, six, and seven. And since for a reprint a compositor could quickly determine, and with great accuracy, the number of lines of type to be set on each of the eight pages in a sheet, setting by formes presented no great difficulty, and certain economies (to be discussed in some detail later) might be gained by using this method. It has been supposed, however, that this method of printing--by formes--was

almost never employed on first editions, chiefly because of the difficulties involved in determining accurately how much manuscript copy would be set on each page in a sheet; that, instead, these first editions were almost always set in seriatim fashion. This long-held supposition can no longer be accepted as a matter of course, for it is demonstrable that sometimes first editions were indeed set by formes and not seriatim. That the First Folio was set by formes has already been demonstrated, and more recent studies offer surprising evidence that various quarto plays were also composed in this manner. [1]

Because our understanding of printing by formes (especially in quarto editions) is far from complete, one or two basic problems might well be discussed before we examine the composition of several early Shakespeare quartos. To many scholars and editors who have not conducted any detailed investigation of quarto printing, two basic questions are pertinent: Why were quarto texts set by formes? And how was this particular method carried out? It seems convenient to deal first with the latter question. A quarto edition of a dramatic text (and this study will concern only texts of this kind) could be set by formes if the master printer, or the compositor before he began setting type, determined the amount of copy to be set on each of the eight pages of a sheet. That it would be absolutely necessary to accomplish this task is clear,

for if the compositor first set the outer forme of a sheet, pages 1, 4, 5, and 8 (or 1, 2^v, 3, and 4^v--the bibliographical designations used hereafter), he would have to determine in advance how much material he was going to set on the inner forme pages he was passing over, pages 2, 3, 6, and 7 (or 1^v, 2, 3^v, 4). And, of course, the same requirement would hold true if he set the inner forme pages before the outer forme pages. To determine the amount of copy to be set on each of the eight pages of a quarto forme, then, the copy first had to be counted, or "cast off." About this job of casting off copy Moxon [2] tells us:

> Counting or Casting off Copy (for both Phrases are indifferently us'd) is to examine and find how much either of Printed Copy will Come-in into any intended number of Sheets of a different Body or Measure from the Copy; or how much Written Copy will make an intended number of Sheets of any assigned Body and Measure.
>
> The Rule and Method of Counting off either Printed or Written Copy is the same, only Written Copy is more difficult, because subject to be irregularly Writ: Therefore if I shew you how the Compositer Casts off Written Copy, I do at the same time inform you how to Count off Printed Copy.

The Compositer therefore first considers what Bodied Letter his Work is to be wrought on: then he carefully peruses the Copy, considering with himself whether it be evenly Written or unevenly Written, viz. whether it be throughout of an equal siz'd Hand, or whether part be close Written and part wide Written; if it be an equal siz'd Hand, that is, equally close Written in general, as well between Letter and Letter, Word and Word, as between Line and Line, he has scarce more trouble to Count it off than Printed Copy.

Wherefore, the Measure being given, he Composes one Line in his Measure: The Matter he Composes he chuses out of that part of his Copy that in his Judgement he admits is most indifferently Written, between Wide and Close, as being such as his whole Copy, one part with another, will likeliest Come-in alike with. This Line being Compos'd, he considers how much of his Copy it takes up, viz. whether it runs Line for Line, or whether two Lines of his Copy make one Line in his Stick; or whether a Line and a half or a quarter, or half quarter of his Copy, &c. make one Line in his Stick; or whether a Line of his Copy make two Lines in his Stick, or a Line and a half, or a quarter, or half a quarter, &c. and accordingly calculates what just number of Lines will make another just number of Lines in his Stick. [3]

If we confine our attention to manuscript copy, or "Written Copy," it is easy to see that copy for a play written largely in verse would perhaps lend itself more readily to casting-off than would copy for a play written largely in prose. That is, one line of verse in the written manuscript copy could almost always be got into one line of printed text; therefore the compositor would have only to count off the number of lines of verse in his manuscript copy (for example, 35) that he intended to set in a given page, say 1, and then count off the next thirty-five lines for 1^{v}, and so on. But if the play were, in the main, prose, much more, and certainly more careful, calculation would be required in casting-off since a number of lines of prose in the manuscript copy would correspond to the same number of lines of type only by rare accident; and thus a tolerable degree of accuracy in the casting-off would indeed be difficult to achieve. We should not be surprised, then, to find that plays written largely in verse were more often cast-off and set by formes than were plays written largely in prose.

Once the master printer decided that a play (probably written largely in verse) was to be set by formes, the copy for that play had to be cast-off--and with some degree of accuracy. Not only was it necessary to cast-off the number of lines of verse in the copy to be set on each printed page; it was also necessary to consider other

matters. Moxon tells us that, after counting off his lines, "the Compositer has several Considerations upon his Copy before he dares to conclude he has truly and exactly Counted Off." [4] And a few of the "Considerations" mentioned by Moxon are:

> If Chapters, Sections, or Paragraphs happens in the Copy, then the Compositer takes room enough to set them and their Titles gracefully in; and marks in Numerical Figures what number of Lines he assigns for it.
>
> If as he Counts off his Copy he finds Abbreviated Words, he tells the Abbreviated Words to the full number of Letters that spells the Word at length, because in Composing he Sets those Words at length; And should he not consider it in his Counting off, he would in Composing find his Matter Run out from his Copy.
>
> Scarce any Copy is so regularly Written (as hath several times before been hinted) but that some places are Wider, and other places Closer Written, than the generality of the Copy, wherefore he considers both these accidents in his Copy, and accordingly allows for them. [5]

We cannot, of course, expect that the master printer or a compositor would be perfectly accurate in casting off his copy. And indeed he was not. If, for example, when half-way through a page he realized that he did not have enough copy to fill out the pre-determined number of lines

of printed text on that page, he could easily remedy this situation by leaving an open line, or "white space" above (and perhaps below) a stage direction; or he might set one or two speech prefixes on a separate line, centered above the text, rather than on the left-hand margin. Conversely, if the compositor recognized that he had marked off too much copy for a page of printed text, he could correct his error by several means. If, for example, he was setting the outer forme first and he discovered this kind of miscalculation on, say 3, he could simply remark his copy; that is, he could take the two or three lines which could not be set on 3 and simply remark, or reassign, them to 3^v in the inner forme. If the compositor ran into this sort of difficulty on one of the pages of the non-precedent [6] forme, however, his remedy was not so simple. If, for example, while he was setting page 2, he discovered that he had cast-off too much copy for that page, he could not simply remark his copy for 2^v, because that page would now be at the press; and if, moreover, he had already set 1^v (which is not unlikely), he was simply obliged to crowd his copy into 2. He might use an abbreviated speech prefix (such as Bass. rather than Bassianus); instead of setting stage directions "gracefully in," he might set them at the end of a line of text (and perhaps misplace them slightly in the process); moreover he could use "turnovers" or perhaps set two short speeches in the same

line; or he might even reline the text, changing a passage of verse into prose. But if, even after manipulating his text in the above ways, he still had too much copy for the printed page, he would almost certainly have to omit some of the "extra" copy. He would likely omit Exit directions first, and then perhaps other stage directions (in part or entirely); and finally, he might well omit part of the text of the play proper. It is clear, then, that casting off copy and setting by formes (and, of course, the efficiency of the individual compositors who employed the method) might well have affected the text of an Elizabethan quarto play. Perhaps only a stage direction was now and then omitted, or several lines of verse were merely compressed into fewer lines of prose; and indeed these are relatively minor alterations. But there is nothing to prevent us from assuming that sometimes a compositor might well have altered his text in a way that cannot be called minor; that is, he might have deliberately omitted some of that text--because his copy had not been cast off accurately enough. Thus the process of casting off and setting by formes could have a direct bearing upon the fidelity of the printed text of a play to its manuscript copy.

How quarto texts were printed by formes is in general, then, easily enough explained; on the other hand why they were printed in this way may not be readily apparent,

especially since it was necessary to cast-off the copy before the composition began (which, at first glance, appears to be a clearly unnecessary expenditure of labor); and since, in addition, a master printer would surely have been aware that inaccuracies in the printed text might well result. And yet, despite these problems Elizabethan dramatic texts were in fact sometimes printed by formes--and for what we suppose were sound reasons.

The two reasons most often given for printing by formes are, first, to achieve a satisfactory balance between speed of composition and speed of presswork, and second, to reduce (or perhaps even eliminate) the danger of type shortage. With regard to the first reason advanced, it is important to keep in mind that Elizabethan printing houses were commercial enterprises, and therefore were concerned first and foremost to make a profit. And of signal importance is the fact that the number of presses in Elizabethan printing shops was strictly regulated. With the exception of the King's Printer, no printing house had more than two presses, and several were limited to a single press. [7] The major problem for any master printer, then, was presswork capacity. Thus the key to an economically successful operation was to keep the press running, almost continually, throughout the working day. And in order to achieve maximum presswork capacity, the rate of composition had to be rather closely adjusted

to the speed of presswork. If, for example, a compositor set more material than could be systematically machined by the press, an unwanted backlog of readied formes would result (and this might well lead to a critical shortage of particular, often-used types). If, on the other hand, a compositor did not set enough material to keep the press busy, a delay would take place (in a one-press shop, of course, the actual printing, or machining, of material would literally come to a halt). We can be sure that Elizabethan printers went to some trouble to avoid both situations. Indeed, Moxon tells us: "It is customary in some Printing-houses that if the Compositor or Press-man makes either the other stand still through the neglect of their contracted Task, that then he who neglected, shall pay him that stands still as much as if he had Wrought." [8]

It has been supposed, then, that one of the chief reasons that books were set by formes was to establish and maintain a satisfactory balance between speed of composition and speed of presswork. And how, in particular, was this balance achieved on a given book? First, the speed of presswork was not subject to much variance once the size of the edition of a given book had been determined. To illustrate, the master printer decided upon an edition of, say 1,000 copies. Thus 1,000 impressions would be made of each forme, and the time required to machine this number of impressions for any one forme would be almost

exactly the same for each of the formes in the book. Speed of composition, however, could vary considerably. And it was here that steps were probably taken to insure that the rate of composition was fast enough to keep the press busy. Certainly one of the clearest examples of setting by formes in order to maintain an acceptable balance between presswork and composition occurs in parts of the First Folio. It has been demonstrated [9] that in this book the required number of impressions of a single given forme ordinarily was machined in about half the time it took one compositor to set a single forme. Therefore in order to achieve an acceptable balance between composition and presswork, two compositors often worked simultaneously, setting their type from cast-off copy. More relevant to the present investigation of quarto printing, a recent study of the first quarto of Richard II, 1597, [10] strongly suggests that for this book as well, a single compositor could not set material fast enough to keep the press busy; but unlike the Folio, where two compositors working simultaneously established a satisfactory balance, in Richard II a second compositor was used only occasionally (sometimes setting a single page of a given forme) in order to achieve an acceptable relationship between composition and presswork speeds.

The second reason sometimes advanced for setting books by formes can be dealt with more quickly. Very

simply, we have supposed that setting by formes would ordinarily require less type than would setting by consecutive pages, or seriatim; that is, in setting by formes less type would be set up in pages (and therefore more type would be available in the sort boxes for composing) at any given time than we would, under normal circumstances, expect to find in seriatim setting.[11] If the stock of type in a printing house were not particularly large, the master printer might therefore choose to set by formes.

To sum up briefly, it has heretofore been thought that setting by formes was sometimes if not usually undertaken, either in order to avoid a critical shortage of particular types when the entire stock of type in a printing house was less than abundant; or in order to establish and maintain a satisfactory balance between speed of composition and speed of presswork, and in particular when a second compositor was needed to set some of the material in a given forme so that it could be prepared for machining more quickly, thus removing the need for the press to stand idle. It should be emphasized, however, that our understanding of why books were set by formes is still vague, and it is fundamentally important that we increase our presently scanty knowledge of this significant matter.

Before examining in some detail the printing of the first quarto of Titus Andronicus as well as two other early Shakespeare quartos, the first quarto of Romeo and Juliet and the first quarto of Much Ado About Nothing, it will be necessary to discuss briefly the kinds of evidence used in this study to determine just how a play was printed. Evidence provided by variant spellings, type shortage (as indicated by the occasional substitution of, for example, "VV" for "W," italic for roman, and the like), and headlines can sometimes furnish valuable information about the printing of a play. Variant spellings, for example, provide the chief evidence for compositor identification and so can sometimes tell us how many compositors set a play and what particular pages of the play each one set. Type shortage can sometimes suggest the order in which individual pages of a given forme were composed. And evidence furnished by headlines can in some instances establish the order in which the several formes of a play were machined. As valuable as these kinds of evidence can sometimes be, however, it is no exaggeration to say that they cannot tell the whole story about the printing of a text. For instance, headline evidence may make clear the order in which each forme was sent to press, but it cannot of itself tell us how the pages in those formes were set--whether seriatim or by formes. Type-shortage

evidence may be abundant and sometimes illuminating in the early sheets of a play, but for various reasons the evidence often becomes quite thin and hence less valuable in later sheets. Moreover variant spellings, like headlines, ordinarily cannot establish with certainty whether the sheets of a play were composed by formes or seriatim; and indeed in at least one instance to be mentioned presently, spelling evidence alone presents a very deceiving picture.

This is not to suggest that these kinds of evidence are untrustworthy; on the contrary they are often of considerable value. But it should be emphasized that the kind of evidence which must be taken into account and relied upon primarily if we are to know, in detail, how a play was printed is that provided by individual types. Not infrequently a sizeable number of individual types are damaged during the printing process, damaged enough to make them distinctive and therefore easily identifiable. For example the ascender of an "h" may be bent noticeably to the left or right; a "t" or a "p" may be badly fractured, as the plates on the following pages will show. A considerable number of these distinctive types can be identified as they appear and then reappear again and again through the sheets of a printed play. The subsequent analysis of the recurrence of a sizeable number of types can, then, provide a considerable amount of detailed information about how the play was printed;

Tribunes. To gratifie the good *Andronicus*,
And gratulate his safe returne to Rome,
The people will accept whom he [illegible]ite.
Titus. Tribunes I thanke yo[illegible] this sute I make,
That you create our Emper[illegible]eldest sonne,
Lord *Saturnine*: whose vertues will I hope,
Reflect on Rome as Titus Raies on earth,
And ripen iustice in this Common weale:
Then if you will elect by my aduise,
Crowne him and say, *Long liue our Emperour.*

Damaged "t" first appears in Titus Andronicus in B2^{v}, line 26.

Exit all but Marcus and Titus.
Marcus. My Lord to step out of these dririe d[illegible]ps,
How comes it that the subtile Queene of *Goth*[illegible]
Is of a sodaine thus aduaunc'd in Rome,
Titus. I know not *Marcus*, but I know it is.
(VVhether by deuise or no, the heauens can tell,)
Is shee not then beholding to the man,
C That

Damaged letter next appears in C1, line 33.

Bassianus. Beleeue me Queene your swartie Cymerion,
Doth make your honour of his bodies hue,
Spotted, detested, and abhomin[illegible]le,
VVhy are you sequestred f[illegible] your traine,
Dismounted from your [illegible] white goodly steede,
And wandred hither to an obsure plot,
Accompanied but with a barbarous *Moore*,
If foule desire had not conducted you?

Third appearance is in D2^{v}, line 15.

Titus. Heare me graue Fathers, Noble Tribunes stay,
For pittie of mine age, whose youth was spent
In dan[illegible]ous warres, whilst you securelie slept.
For al[illegible]y blood in Roomes great quarrell shed,
For al[illegible]e frostie nights that I haue watcht,
And [illegible]hese bitter teares which now you see,
Fillin[illegible] the aged wrincles in my cheeks,
Be pittifull to my condemned sonnes,
VVhose soules is not corrupted as tis thought.
For two and twentie sonnes I neuer wept,
Because they died in honours lofti'e bed,

Fourth appearance is in E3, line 24.
(Type appears two more times in the play: on F2^{v}, line 24; and on K3^{v}, line 32.)

Titus. It doth my worthie Lord, and in this match,
I hold me highly Honoured of your Grace,
And here in sight of Rome to *Saturni*[illegible].
King and Commander of our comm[illegible] weale,
The wide worlds Emperour, doe [illegible]sferate
My sword, my Chariot, and my [illegible]oners,
Presents well worthy Romes imperious Lord:
Receiue them then, the tribute that I owe,
Mine honours Ensignes humbled at thy feete.

Damaged "p" first appears in Titus Andronicus in B3, line 16.

So trouble me no more, but get you gone.
3. Sonne. He is not with himselfe, let vs withdraw.
2. Sonne. Not I till *Mutius* bones be buried.
The br[illegible]r and the sonnes kneele.
Marcus. B[illegible]er, for in that name doth nature pleade,
2. sonne. [illegible]er, and in that name doth nature speake.
Titus. Speake thou no more, if all the rest will speede,
Marcus. Renowmed *Titus*, more than halfe my soule.

Damaged letter next appears in C1, line 7.

And let her ioy her Rauen culloured loue,
This valie fitts the purpose pass[illegible] well.
Bass. The King my broth[illegible] all haue notice of this.
Lauinia I, for these slips ha[illegible]ade him noted long,
Good King to be so mighti[illegible] abused.
Eugene. VVhy I haue patience to indure all this.
Enter Chiron and Demetrius. (Mother,

Third appearance is in D2^{v}, line 26.

For pittie of mine age, whose youth was spent
In dangerous warres, whilst you securelie slept.
For all m[illegible]ood in Roomes great quarrell shed,
For all [illegible]rostie nights that I haue watcht,
And [illegible]hese bitter teares which now you see,
Filli[illegible] the aged wrincles in my cheeks,
Be pittifull to my condemned sonnes,
VVhose soules is not corrupted as tis thought.

Fourth appearance is in E3, line 24
(Type appears three more times in the play: in F2^{v}, line 33; in H4, line 12; and in K1, line 17.)

and along with other kinds of evidence, this kind of information can very often enable us to determine whether the book (and indeed each individual forme) was composed seriatim or by formes, as we shall now see.

The patterns of recurring distinctive types in a quarto play set seriatim differ strikingly from those furnished by a play set by formes. To explain briefly, if a play were set seriatim the compositor would set, say sheet B, in the following manner: 1, 1^v, 2, 2^v, and so forth until the first seven pages of the sheet were set. For not until then would any forme be completed--in this case the inner forme of sheet B (1^v, 2, 3^v, and 4)--locked up and sent to press. While inner B was being machined, the compositor would, of course, continue to set material by consecutive pages: he would first set $B4^v$ and then begin setting sheet C--1, 1^v, 2, 2^v, and so on. Normally he would be able to set about four pages--the last page of sheet B ($B4^v$) and <u>about</u> the first three pages of sheet C--1, 1^v, and 2--before the press finished machining inner B; moreover inner B would then have to be washed, unlocked and distributed before any types in that forme could be made available for subsequent use. It is eminently clear, then, that no distinctive types could appear in both inner and outer formes of the same sheet (in sheet B in our present illustration); and further, that no distinctive types from inner B would be likely to appear in the first

few pages of sheet C; moreover it is possible and indeed probable that, unless distribution took place immediately after a forme was wrought off, inner B types would not even reappear in the later pages of sheet C, that in fact they would not appear again before sheet D. Further, after printing inner B, the press would then begin printing outer B, during which time the compositor would continue to set sheet C--2^v, 3, 3^v, 4 and so on; and since, as we noticed before, he would ordinarily set about four pages while a given forme was being printed, he would, at least, almost finish setting sheet C before outer B was finished at press, unlocked, and distributed. [12] Again, it is clear that no distinctive types from outer B would be likely to appear in any page of sheet C. That is, when a play is set seriatim we should not be surprised to find that distinctive types do not occur in consecutive sheets, but rather that they appear in the next sheet but one--sheet B types next appearing in sheet D, sheet C types appearing in sheet E, and so forth. And in any event we could not expect to find distinctive types in both formes of the same sheet.

If therefore a substantial number of types can be confidently identified as they reappear, either in both formes of the same sheet, or in consecutive sheets (especially in the first few pages of the second sheet), we have strong evidence that the play was not set seriatim but by

formes. The first quartos of Romeo and Juliet and Much Ado About Nothing may be used to illustrate.

The first quarto of Romeo and Juliet (1597) has been the subject of several studies, [13] but heretofore the type-recurrence evidence furnished by this play has not been examined. Distinctive types in this play are not, to be sure, so abundant that we can always determine precisely the order in which the play was composed and printed. And one of the reasons for this difficulty is that the play consists, so to speak, of two sections: sheets A-D were printed by Danter; sheets E-K were printed by another printing house in a different fount of type. Nevertheless there is enough type-recurrence evidence to make it virtually certain that both sections of the play were composed by formes. When we examine type-recurrence patterns in sheets A-D, we notice that of fourteen identifiable types, twelve appear in consecutive sheets; and indeed in seven instances types recur in the early pages of the second sheet, patterns which simply would not be produced had the play been set seriatim. [14]

The chart below sets forth the recurrence patterns of the fourteen types identified in sheets A-D. Each type is identified with a two-digit number; lower case roman letters designate lower case roman types, and upper case letters designate upper case types (no italic types were identified with certainty). Thus type d21 occurs first on B3,

line 12, next on C2, line 21, and so on.

B21	B2^{v}.2	D2^{v}.12		
B22	B2^{v}.9	D2.10		
d21	B3.12	C2.21	D3.20	
d22	C3^{v}.6	D3^{v}.17		
k21	C3^{v}.12	D3^{v}.24		
M21	B4.10	C3.28		
n21	C3^{v}.23	D3^{v}.27		
*n22	B3.8	C1.8		
o21	C2^{v}.24	D3.14		
*o23	C1^{v}.15	D1.14		
p21	C3^{v}.9	D3^{v}.28		
st21	A4^{v}.31	C3.10	D2^{v}.11	
t21	B3.11	C2.13	D4^{v}.6	
*u21	A4.21	B1^{v}.13	C1.29	D3.11

The relatively small number of clearly identifiable types in sheets A-D does not tell us as much as we would like to know about the exact order of composition of these sheets. Nevertheless when we notice, first, that well over three quarters of the identifiable types recur in consecutive sheets, second, that at least one type from each sheet next appears in the first two pages of the following sheet (see n22, o23, and u21--marked with asterisks), and third, that several types appear three times (and indeed that one type appears four times) in four quarto sheets, [15]

we can reasonably conclude but one thing: that the four sheets were almost certainly composed by formes.

With regard to sheets E-K of the first quarto of Romeo and Juliet, the number of types which can be confidently identified as they reappear is again relatively small --only 17--but these few types demonstrate clearly that sheets E-K as well were composed by formes. The type-recurrence patterns for these sheets follow:

a21	E4.31	$H4^{V}.33$	K4.3		
*C21	$F3^{V}.27$	$F4^{V}.20$	I4.14	$I4^{V}.18$	K3.31
g21	$E1^{V}.24$	$F2^{V}.14$			
*G21	F3.18	$G3^{V}.24$	$G4^{V}.25$		
m21	E1.22	G2.24			
*m22	F3.20	G3.31	$G3^{V}.14$		
m23	E4.10	H3.22			
*M21	F3.6	G3.26	G4.36		
o23	E3.26	$F3^{V}.4$			
*r21	H3.6	H4.22			
*t21	$E4^{V}.4$	F4.25	I4.8	$I4^{V}.31$	
w21	E3.22	$F3^{V}.3$			
*W21	E4.28	H4.15	$H4^{V}.36$		
ff21	E3.30	F4.32	$G3^{V}.4$		
*st21	H3.15	$H3^{V}.24$			
st22	E3.6	$F3^{V}.10$	$K3^{V}.25$		
y21	E1.11	F2.21	$H1^{V}.1$		

The most striking aspect of the chart is the type recurrence in sheets F, G, H, and I (see starred types): in each of these four sheets we find types which appear in both the outer and inner formes of the sheet, clearly an impossibility had the sheets been composed seriatim.[16] Moreover, several types in sheet E next appear in sheet F. For sheet K the typographical evidence is less abundant, a single type recurring in sheet I and again in sheet K. There can be little question, however, about the method of composing sheets E-K: they were, in this instance, demonstrably composed by formes.

Before examining the composition of yet another quarto play, two important points ought to be made about the value of the type-recurrence evidence in sheets E-K of Romeo and Juliet. First, Professor Hoppe's earlier study of the play focused, in the main, upon variant spellings in sheets E-K. From spelling evidence he correctly concluded that two compositors were at work on sheets E-K, and throughout most of these six sheets, the first compositor regularly set pages 1, 1^v, 2, and 2^v while the second compositor set pages 3, 3^v, 4, and 4^v Moreover it is fundamentally important to note that Professor Hoppe understandably assumed that the first quarto of Romeo and Juliet was set seriatim; and the variant spellings which he carefully noted did nothing to question that long-held assumption. Type-recurrence evidence, however, makes it

eminently clear that sheets E-K were set by formes; and this evidence in conjunction with Professor Hoppe's variant spelling evidence strongly suggests that composition of those formes, in the main, proceeded thus; in sheet F, for example, the first compositor set two pages of the outer forme, 1 and 2^v, while the second compositor set the remaining two pages of that forme, 3 and 4^v; the forme was locked up and sent to press and work then began on the inner forme of sheet F, the first compositor setting 1^v and 2, the second compositor setting 3^v and 4, an order of setting <u>by formes</u> by the two compositors which in fact produces almost exactly the variant spelling evidence presented by Hoppe--which was, however, based upon an assumed seriatim setting. The second point is that evidence produced by distinctive types is valuable here in yet another way. There are several pages in sheets E and F for which spelling evidence is inconclusive. Hence Hoppe relies on a "kind of process of interpolation and extrapolation" [17] to assign these pages to a particular compositor. It is significant to note that most of these pages furnish type-recurrence evidence which removes almost all doubt about which compositor was at work, evidence which strongly supports Hoppe's conclusions based upon "interpolation and extrapolation." [18]

The value of the evidence provided by the recurrence of distinctive types can also be seen if we take note of

another earlier study of the first quarto of Romeo and Juliet. Professor George Walton Williams' study, "Setting By Formes in Quarto Printing" [19] examines several quarto texts in addition to the first quarto of Romeo and Juliet. His conclusions about this play are based not upon type-recurrence evidence but rather, and exclusively, upon evidence provided by type shortages; and he admits that this particular kind of evidence can sometimes present problems. Certainly one of the major difficulties, although there are others, presented by type-shortage evidence, and one which Williams points out, involves "tracing shortages through the successive sheets of a quarto; characters in demand in one sheet are often not needed in another so that a continuing pattern is not attainable." [20] He then goes on to say that "the evidence from type shortage suggests that Compositor X was setting his half of the sheet by formes (the outer first) in the order 3, 4^{v}, 3^{v}, 4, . . . [but] the pattern of type shortage in the work of Compositor Y is much less clear than that in the work of X though Compositor Y too would seem to have set by formes." [21] In summarizing his discussion of the composition of Romeo and Juliet, Williams freely admits that "the evidence is not so convincing as could be wished, and I hesitate to speculate further." [22] On the other hand type-recurrence evidence can, in this case, allow us to do more than suggest and speculate; indeed it can establish

with certainty that sheets E-K of Romeo and Juliet Q1 were set by formes.

Professor John Hazel Smith's recently published study of the first quarto of Much Ado About Nothing (1600) [23] sets out "to prove that the Much Ado About Nothing quarto must be added to the growing list of quartos known to have been cast off and composed by formes."[24] We should expect, then, to find type-recurrence patterns similar to those provided by the first quarto of Romeo and Juliet. The distinctive types in Much Ado About Nothing listed below are by no means all of those identified; they are merely a sample but are, I believe, representative of the general patterns presented by all identifiable types in the play--with the exception of upper case italic "B's," which will be considered presently. [25]

b21	C4^{V}.28	E2.30	H2^{V}.11		
b22	B2.18	D3^{V}.3	H4^{V}.8		
e21	B1^{V}.7	D3.6	F4.32	H4^{V}.25	
e22	B1^{V}.36	D3^{V}.1	G1^{V}.35	I2.4	
e23	B3^{V}.15	D1^{V}.28	F3^{V}.13	H1.18	
*g21	A2^{V}.34	C3^{V}.6	E4^{V}.23	G2^{V}.25	H3.31
*h21	A2.33	C1^{V}.9	F3^{V}.10	H1^{V}.14	I3.2
h22	A4^{V}.16	C4.28	E4^{V}.24		
h23	A4^{V}.19	C4.18	F3^{V}.6	H1.26	
*I21	B2^{V}.22	E2^{V}.35	G1.7	H2^{V}.37	

I22	A3^{v}.12	C2.17	E4^{v}.22	I4.21	
k21	B4^{v}.27	D4.9	F4^{v}.21	H2.26	
m21	B3^{v}.11	D2.6	G1^{v}.7	I1.32	
*m22	C2.28	F4^{v}.25	H2.11	I2^{v}.2	
*n21	C1.33	E2^{v}.11	H1^{v}.17	I2^{v}.29	
n22	A4^{v}.7	C4.12	E4.22		
n23	D2^{v}.22	F2^{v}.28	H2.8		
sh21	B3.13	D4^{v}.12	F1^{v}.3		
T21	B4.3	E3^{v}.27	G2.6	I4.7	
W21	A3^{v}.6	C2^{v}.19	E1.21	G2.30	
*y21	A2^{v}.24	C4.31	F3^{v}.37	H2.12	I2^{v}.27

These type-recurrence patterns are obviously in marked contrast to those in Romeo and Juliet. Recall that in the earlier play, in sheets A-D, several types appeared three times in the four sheets, and one appeared in each of the four sheets (in spite of the fact that sheet A contained less than two full pages of text). Moreover types consistently appeared in consecutive sheets: A and B, B and C, C and D. In sheets E-K of Romeo and Juliet, we noticed, first, that types appeared in both the inner and outer formes of four sheets (F, G, H, and I); that types recurred consistently in consecutive sheets; and finally, that types regularly recurred four times, and one recurred five times, in the seven sheets which made up the last part of the play. But in Much

Ado About Nothing, we notice that only three of the types appear as many as five times in the nine sheets of the play, and indeed, that a great majority of the types appear no more than four times. Equally significant is the fact that no types appear in consecutive sheets except in the last three sheets, in G and H, H and I (see starred types). And headline evidence strongly suggests that delays took place as these three sheets were being composed and machined. Instead of types reappearing in consecutive sheets, then, we find that in this play the normal pattern is for types to skip an entire sheet before they appear again--precisely the sort of pattern that we should expect if the play had been composed not by formes, but rather by consecutive pages, or seriatim. One could, then, justifiably ask: In the light of this evidence, how could it be concluded that Much Ado About Nothing was set by formes? Recall, however, that not all of the types in the play are listed above. Yet to be examined are the upper case italic "B's" in the play. And the recurrence patterns of those types are as follows:

B21	A3.12	C2^{V}.28	D1.17	E4^{V}.21	F4^{V}.26
	G3^{V}.8	I2.12			
B22	A3^{V}.2	B4^{V}.21	C1.12	D3^{V}.16	F4^{V}.35
	G3^{V}.5	H2.15			
B23	A3^{V}.10	B4^{V}.22	C4^{V}.9	D1.10	E3.8
	F4^{V}.27	G3^{V}.22			

B24	A3^{v}.27	B1.30	C4.21	E2^{v}.6	G2^{v}.31
	H2^{v}.12				
B25	B4^{v}.27	C4^{v}.5	E2.35	F3^{v}.9	I2^{v}.33

These five type patterns, of course, differ strikingly from the patterns presented by the great majority of types in the play, including all other upper case italic types. Indeed three of the five upper case italic "B's" occur no fewer than seven times in the nine sheets of the play; moreover these types (though these types only) consistently appear in consecutive sheets. The answer to the question posed above is now obvious: the conclusion that Much Ado About Nothing was composed by formes rests principally upon the evidence furnished by upper case italic "B's." And yet it is evident that this conclusion is clearly contradicted by the recurrence patterns of the great majority of types in the play.

To explain the peculiar recurrence of the upper case italic "B's" is not an easy task. Professor Smith proposes that italic and roman types were not distributed together but separately, the italic letters being distributed before the roman letters. Two objections to this proposal are immediately suggested: first, no other italic types (upper case or lower case) occur in the same patterns or as frequently as the "B's";

and second, the compositor would have had to remove the italic types with a great deal of care lest he upset some of the roman types which stood next to the italic. One explanation for these types, and the only one that seems practical, is that the "B's" were purposely removed from the formes soon after they were returned from the press, washed, and unlocked; that is, they were removed before _any other_ distribution took place, and probably without great difficulty because they are, in almost every case, to be found in speech prefixes--near the left-hand margin of the page.[26]

And the reason for this rather unusual procedure is not difficult to find; a great number of speech prefixes begin with upper case "B": _Benedicke_, _Beatrice_, _Borachio_, _Balthasar_, _Bastard_, _Boy_, and _Brother_. But however the curious patterns presented by these upper case italic "B's" are accounted for, the larger question about the play can be answered in but one way. The overwhelming evidence presented by the vast majority of types suggests that the first quarto of _Much Ado About Nothing_, a play containing a considerable amount of prose, was almost certainly set by consecutive pages, or seriatim.

Before examining in detail the composition of the first quarto of _Titus Andronicus_, it will be necessary to explain briefly the method used to present the evidence--or more particularly, type-recurrence evidence.

Type-recurrence patterns in Romeo and Juliet and Much Ado About Nothing were presented simply as lists because, in the former, comparatively few types could be confidently recognized; and in the latter, only a selection of types was set forth. But in order to discuss the typographical evidence in Titus Andronicus, which will be examined in much greater detail, it seems advisable (and indeed at times it is necessary) to present the patterns made by a considerable number of distinctive types. Thus the type-recurrence patterns will be presented graphically. The graph on the following page, then, is for sheet C; that is, it sets forth all obtainable evidence regarding the composing of sheet C, and the pages from which types were distributed in order to set sheet C. Fifty types are shown here, each one again being designated by a letter (lower case or upper case) and a two digit number. Italic types are underlined (for example see line 37, n21); and types which are "new," that is, which have not previously been identified in the play, are designated by a lower case "n" in parentheses just before the designation of the type itself (for example, lines 13, 14, and 15). Such types, it will be understood, are "new" only in the sense that they have not been seen before in the form which now enables us to recognize them individually. It is usually to be presumed that they suffered damage

A	3v 4	B	I 1	I 2v	I 3	I 4v	II 1v	II 2	II 3v	II 4	C	I 1	I 2v	I 3	I 4v	I 1v	I 2	I 3v	I 4
1. n21				X								X							
2. N22				X								X							
3. t22				X								X							
4. t23				X								X							
5. d22				X								X							
6. h21					X							X							
7. k23					X							X							
8. N21					X							X							
9. p25					X							X							
10. t24					X							X							
11. T21					X							X							
12. f23						X						X							
13. (n.) m24												X							
14. (n.) L21												X							
15. (n.) h25												X							
16. C21				X									X						
17. d21				X									X						
18. p22				X									X						
19. u21				X									X						
20. (n.) K21													X						
21. C24					X								X						
22. (n.) o23													X						
23. T32			X										X						
24. A21			X											X					
25. g21			X											X					
26. M21						X								X					
27. i23			X											X					
28. (n.) i30														X					
29. (n.) u24															X				
30. h23							X									X			
31. t21							X									X			
32. u22									X							X			
33. n24									X							X			
34. p34									X							X			
35. p21							X									X			
36. A22					X												X		
37. n21							X										X		
38. o21							X										X		
39. u23										X							X		
40. n25										X							X		
41. i21										X							X		
42. (n.) ff23																	X		
43. G21								X										X	
44. e21									X									X	
45. q21									X									X	
46. O23						X													X
47. a22							X												X
48. (n.) K22																			X
49. b22										X									X
50. m34								X											X

SHEET C

J distributed B1, 2^{v}, 3, 4^{v} & set C1, 2^{v}, 3, 4^{v}
J " B1^{v}, 2, 3^{v}, 4 & " C1^{v}, 2, 3^{v}, 4

J distributed 8 pages and set 8 pages
Standing: A3^{v} & 4 and sheet C — 10 pages

GRAPH II

that makes them distinctive either during or immediately before the printing of the forme in which they first catch our attention by virtue of their abnormality; in some instances, however, they have probably long been distinctive but have not been noticed before simply because they have not been used before in the printing of the book now being examined. So it would be, for example, with most if not all the distinctive types seen in sheet A. And so it might be with any concentration of distinctive types encountered for the first time in some later sheet: typographical material containing a number of distinctive types, but material last used in the printing of some other book, may only now have been added to the stock being used to print this book. A cross within the vertical and horizontal coordinates of the graph indicates that a given type appears in the page designated at the top of the column. For example, n27 (line 1) appears on $B2^{v}$ and again on C1; and m24 (line 13), a "new" type which has not appeared prior to sheet C, appears for the first time in the book on C1. The order of the formes shown along the top of the graph is suggested by headline evidence which will be set forth fully in the next chapter. Four final points:
(1) Those pages which were evidently distributed in order to set the sheet being examined--sheet C here--are enclosed in parentheses at the top of the graph: in this instance

both outer and inner B were distributed and sheet C was set (although, as the graph shows, inner B was not distributed until outer C had been set). (2) Also at the top of the graph, the skeletons used in the various formes (to be discussed fully in the next chapter) are represented by upper case roman numerals: Skeleton I is used in B(o), Skeleton II is found in B(i); and Skeleton I is next seen in both C(o) and C(i). (3) If any pages from an earlier sheet remain undistributed, they are designated by square brackets at the bottom of the chart: here $A3^{v}$ and A4 remain undistributed. (4) Below the short summary of distribution and composition facing the graph proper, the number of pages distributed and set by the hypothetical Compositor J, along with the number of pages standing (in type), will be detailed.

The graph for sheet C makes one thing clear: that unless some delay took place this sheet was composed by formes. The graph shows that over three-fourths of the types which appear in sheet C are seen also in sheet B and thus in consecutive sheets; moreover, types regularly reappear in the next forme but one--and not in every other sheet as we noticed in the first quarto of Much Ado About Nothing. Also significant is that many types from sheet B, including one from $B4^{v}$, reappear in the early pages of sheet C; that no fewer than twelve types from outer B

reappear in the first page of outer C, and six types from inner B reappear in the first page of inner C. Recurrence patterns of this kind are, as we have seen, to the last degree improbable when a text is set seriatim; the evidence therefore strongly suggests that sheet C was set by formes. The graph for sheet C, however, is merely a sample, and the discussion of the evidence set forth in that graph is necessarily confined here to a few explanatory remarks. The following chapter, however, will present graphs for, and a detailed discussion of, the individual sheets of Titus Andronicus.

In the following analysis of the various sheets of Titus Andronicus, a somewhat artificial manner is used to present the graphic evidence to the reader who is perhaps unfamiliar with type-recurrence evidence. The detailed discussion of each sheet is based on a graph which shows that a given sheet was set by formes; that is, the discussion will proceed on the assumption that the sheet was set by formes. Only at the end of the detailed discussion of a given sheet will the evidence be presented which shows that the sheet was in fact set by formes. Granted there is a certain circularity here, but only because the primary purpose of the graph is to set forth simultaneously, in the way that seems likely to be most illuminating to the reader, the various facts bearing upon how the sheet in

question was produced. In every instance these facts, and especially the evidence which determines that the sheet was indeed set by formes, have been carefully considered before being thus presented.

Typographical Evidence in Titus Andronicus Q1

In this chapter various kinds of bibliographical evidence will be presented which will attempt to reconstruct the printing of the first quarto of Titus Andronicus --and in some detail. Very often, for example, the order in which the individual pages of a forme (or sheet) were set can be determined. That the play was almost certainly set by a single compositor, arbitrarily designated "Compositor J," will also be shown. (Compositor J and spelling evidence will be discussed in Chapter IV.) And of primary significance, the evidence presented here will indicate that with the possible exception of sheet A, the first quarto of Titus Andronicus was composed throughout by formes.

The analysis of the printing of Titus Andronicus relies upon several kinds of evidence: headlines, for example, often suggest the order in which the formes of a given sheet were printed; and this evidence is, in almost every case, substantiated by type-recurrence patterns. (A chart showing the headlines used in the play, along with some necessary explanation, will be found on pages 65-73.) Also useful is the evidence provided by type shortage, although in Titus Andronicus (and in other plays as well) this kind of bibliographical evidence is not so reliable as we might wish. (A chart

showing type substitutions in the play will be found in Appendix I.) As useful as these kinds of information are, however, the sort of evidence relied upon primarily in the following analysis is that provided by the recurrence patterns of distinctive types, for it is this kind of evidence (considered, of course, in conjunction with other kinds) that furnishes the most important body of information as to how the printing was done; and in particular it is fundamentally important in determining the manner in which a play was composed, whether by consecutive pages or by formes. The type-recurrence patterns for the various sheets of Titus will be set forth on the following pages in a series of graphs, each constructed in the same manner as the one shown at the end of the preceding chapter. Each sheet will be charted on a separate graph, with the exception of sheets A and B which will be dealt with in Graph I. (A master list of the identifiable types in the quarto, listed by page and line number, will be found in Appendix II.)

Headlines

The chart detailing the headlines and skeletons used in the first quarto of Titus Andronicus (see pages 70--71) will require some preliminary discussion. The skeleton in an Elizabethan book normally consists of (1) the chase, a metal frame within which type pages are imposed, (2)

quoins, or wooden blocks which fill up the space between the type pages and the chase, and (3) occasional additional material which, in Titus Andronicus, involves headlines only. The skeleton, then, is an outer frame, together with some "filler" material usually including a set of headlines (four in quarto printing, one for each page), which is locked about the type pages to make the single typographical unit, known as the forme, which is then used to print one side of a sheet. The headline, if present, consists of (1) either a title or, as in Titus Andronicus, one of the two halves of a title; (2) a page number, if the book is paginated (as Titus Andronicus, however, is not); and (3) such quads as are needed to fill out the line before and after the title or part-title and so make a solid typographical unit.

Skeletons, once made up, are ordinarily used again and again in a play; and sometimes the headlines in these skeletons contain distinctively damaged types; or types in them may suffer damage while the play is being printed. We are therefore sometimes able to identify particular headlines as they reappear in the various pages of a play. In the plate on the following page, the $A4^{v}$ headline is distinctive for several reasons: (1) a lower case "l" is used in "lamentable"; (2) an upper case roman "T" is used in "Tragedie"; and (3) the top of the first lower case "e" in "lamentable" is broken. Nor is this the only distinctive

The moſt lamentable Tragedie

Headline found on A4^{v} of <u>Titus Andronicus</u> Q1

of Titus Andronicus

B1 headline

The moſt Lamentable Tragedie

B2^{v} headline

of Titus Andronicus.

B3 headline

The moſt Lamentable Tragedie

B4^{vv} headline

headline in the play. Also reproduced here is the set of four headlines first found in the outer forme of sheet B. Each is in one or more ways distinctive. (1) The B1 headline shows a distorted upper case "A" in "Andronicus." (2) The headline on $B2^V$ uses an upper case "L" in "Lamentable" and an upper case swash italic "T" in "Tragedie." (3) B3 headline shows a fractured "s" in "Titus" and an inverted "s" in "Andronicus" (this type is not broken but merely badly inked here). (4) $B4^V$ headline contains a bent upper case "T" in "The," a different upper case "L" in "Lamentable" from the one seen in the $B2^V$ headline, and the "i" in "Tragedie" is clearly dotted (as the "i" in $B2^V$ "Tragedie" is not).

In the chart of headlines (see pages 70 - 71) the sheets of Titus Andronicus are arranged by formes--in the order in which they were probably printed. Thus the outer forme of sheet A--designated A(o)--was printed first; and the inner forme of sheet A--designated A(i)--was printed next. B(o) was then printed, followed by B(i), and so on. The $A4^V$ headline seen in the plate on the preceding page is arbitrarily labeled "q" in the chart; and we notice that this particular headline next appears on $A3^V$, then not again until $E3^V$, and so forth. The four B(o) headlines (found on B1, 2^V, 3, and 4^V) shown in the plate are labeled in the chart "a," "n," "c," and "p" respectively; and these four headlines belong to Skeleton I--as indicated by the

roman number just above the designator for the outer forme of B--B(o). Skeleton I then next appears in C(o), again in C(i), and so on. The headlines found on $B1^{v}$, 2, 3^{v}, and 4 are labeled "m," "b," "o," and "d" respectively in the chart; and they are considered Skeleton II which appears first in B(i), next in D(o), and so forth. One further point: Skeleton I*, seen for the first time in E(i), contains two headlines which last appeared in D(i)--"n" and "a"--and two other headlines last seen in A(i)--"q" and "e." After E(i) Skeleton I* is then seen in F(o), again in H(o), and finally in K(o).

HEADLINES

Recto headlines: of Titus Andronicus

Verso headlines: The most lamentable Tragedie

Skeleton I: ancp

Skeleton II: mbod

Skeleton I*: naqe (after sheet A, contains two headlines from Skeleton I)

					I		II		I		I		II
A	(o)①	A	(i)	B	(o)	B	(i)	C	(o)	C	(i)	D	(o)
1	--	1^v	--	1	a	1^v	m	1	a	1^v	n	1	b
2^v	--	2	--	2^v	n	2	b	2^v	n	2	a	2^v	o
3	--	3^v	q	3	c	3^v	o	3	c	3^v	p	3	d
4^v	q	4	e	4^v	p	4	d	4^v	p	4	c②	4^v	m

	I		II		I*		II		I*		II		II
D	(i)	E	(o)	E	(i)	F	(i)	F	(o)	G	(o)	G	(i)
1^v	n③	1	b	1^v	n	1^v	o⑥	1	a	1	b	1^v	o
2	a	2^v	o	2	a	2	b	2^v	n	2^v	o	2	b
3^v	p④	3	d	3^v	q	3^v	m	3	e	3	d⑧	3^v	m
4	c	4^v	m	4	e⑤	4	d	4^v	q⑦	4^v	m	4	d⑨

I*		II		II		II		I*		II	
H	(o)	H	(i)	I	(o)	I	(i)	K	(o)	K	(i)
1	a	1^v	o	1	b	1^v	o	1	a	1^v	m
2^v	n	2	b	2^v	o	2	b	2^v	n (11)	2	d (13)
3	e	3^v	m	3	d	3^v	m	3	e	3^v	o (14)
4^v	q	4	d	4^v	m (10)	4	d	4^v	q (12)	4	b

(1) That A(o) was printed before A(i) is tolerably certain. The same headline is used for both $A4^v$ and $A3^v$. Type-recurrence evidence makes it clear that the $1\frac{1}{2}$ pages of text in A(o) were distributed in order to set part of B(o); but the two pages of text in A(i) were not distributed until just before sheet E was composed. Moreover the headline on $A3^v$ next appears on $E3^v$ (and the A4 headline is next seen in E4). This strongly suggests, then, that A(o) was printed first, and its single headline (on $A4^v$) was transferred to A(i)--to $A3^v$--where it stood until it was later transferred to E(i).

(2) Fractured "s" in "Titus" (found in B3 and C3) is replaced here; the altered headline is not seen after D4. Also the "s" in "Andronicus" is inverted in all four appearances of headline "c"--on B3, C3, C4, and D4.

③ No space is inserted between "The" and "most"; hence the first two words of the headline are run together thus: "Themost." The two words are also run together on $E1^V$; on $F2^V$, however, they are properly spaced; but they are again closed up on $H2^V$ and $K2^V$.

④ A space is wrongly inserted between "h" and "e" in "The" rather than between "The" and "most"; this headline does not appear after $D3^V$.

⑤ Damaged "n" (second one) in "Andronicus" appears in E4 for the first time, and is later seen in F3, H3, and K3.

⑥ Upper case swash italic "T" is replaced here by upper case roman "T" in "Tragedie."

⑦ Upper case roman "T" is replaced here by damaged upper case swash italic "T" in "Tragedie." This particular, damaged type is replaced after $F4^V$ and does not appear again in the play; the rest of the headline, however, is seen again on $H4^V$ and $K4^V$

⑧ A space is wrongly inserted between "A" and "n" in "Andronicus."

⑨ The unnecessary space between "A" and "n"

in "Andronicus" (in G3) is removed and the word is properly closed up in G4 (as it is subsequently in H4, I3, I4, and K2).

(10) Upper case swash italic "T" replaced here by upper case roman "T" in "Tragedie."

(11) Upper case swash italic "T" (seen in $H2^V$) is replaced in $K2^V$ by upper case roman "T" in "Tragedie"; also upper case "T" in "The" on $H2^V$ is replaced here by a damaged "T."

(12) Lower case "l" (on $H4^V$) is replaced here by upper case "L" in "Lamentable"; in addition, "m" in "Lamentable" is clearly broken on $K4^V$ for the first time.

(13) Upper case roman "T" in "Titus" (seen in I3 and I4) is replaced here by upper case swash italic "T."

(14) Upper case roman "T" in "Tragedie" (in $I1^V$ and $I2^V$) is replaced here by upper case swash italic "T."

	A	– – ( ) – –								B	I				II			
		1	2v	3	4v	1v	2	3v	4		1	2v	3	4v	1v	2	3v	4
1.	A21										X							
2.	g21										X							
3.	n27				X							X						
4.	C21											X						
5.	d21											X						
6.	d22											X						
7.	p22											X						
8.	N22											X						
9.	S21			X								X						
10.	u21			X								X						
11.	t22											X						
12.	t23											X						
13.	C23											X						
14.	a24											X						
15.	h21											X						
16.	A22												X					
17.	k23												X					
18.	N21												X					
19.	p25												X					
20.	t24												X					
21.	T21												X					
22.	f23													X				
23.	M21													X				
24.	M22													X				
25.	O23													X				
26.	a22														X			
27.	h23														X			
28.	n21														X			
29.	o21														X			
30.	t21														X			
31.	G21															X		
32.	u22																X	
33.	n24				X												X	
34.	e21				X												X	
35.	p34																X	
36.	u23																	X
37.	b22																	X
38.	n25																	X
39.	I21																	X
40.	i21																	X
41.	d26																	X
								[ ]										

SHEETS A & B

J distributed [?] & set sheet A
J " A3 & 4ᵛ and [?] & " B1, 2ᵛ, 3, 4ᵛ
J " [?] & " B1ᵛ, 2, 3ᵛ, 4

J distributed at least 8 pages & set 8 pages
Standing: A3ᵛ & 4 and sheet B — 10 pages

GRAPH I

Sheets A and B

Sheet A contains only three and one-half pages of text, which begins on A3 (A2 is the title page; $A2^v$ is blank). Compositor J, as we may arbitrarily call him, [1] assured himself that his case contained enough material to set the three and one-half pages of sheet A. Type shortage evidence makes it tolerably certain that he set the small amount of text required for this sheet seriatim--A3, $A3^v$, A4, and $A4^v$. [2] Compositor J's case evidently contained a small supply of italic "us" ligatures. When these were exhausted he used separate "u" and "s." A3 (about one-half page of text) contains five italic "us" ligatures but no combinations of separate italic "u" and "s"; moreover, $A3^v$ shows four more of the ligatures--two in line 4 and two in line 10--and, in addition, three instances where separate "u" and "s" are used--one each in line 27, line 28, and line 36 (catchword). A4 contains no ligatures but lower case italic "u" plus "s" is used eight times; and on $A4^v$ we find, again, no ligatures but three combinations of separate "u" and "s." Although the evidence is not so abundant as we might wish, nevertheless it strongly suggests that the three and one-half pages of text in sheet A were set seriatim.

We might reasonably expect that Compositor J, after he finished setting A4, would then lock up the inner forme,

send it to press, and then begin setting $A4^V$, the last page in the sheet. But that seems not to have been the case here. Instead it appears that after setting A4 he continued his work of composition and set $A4^V$; and he then sent A(o) to press (A3 and $A4^V$). After A(o) had been machined, it was removed from the press, washed, and unlocked, and the headline from $A4^V$ was stripped from the forme and used in $A3^V$; and A(i) was then locked up and sent to press. This order of printing is supported by both type-recurrence evidence and headline evidence: the one and one-half pages of A(o) were distributed not long after the forme was wrought off, for types from these pages (although there are few reliable witnesses) appear again in B(o), the first forme set by J after he completed the composition of sheet A. But types from the two pages of A(i) do not appear again until sheet E; moreover the two headlines in A(i)--on $A3^V$ and A4--also next appear in E(i). We can therefore only reasonably conclude but one order of printing: A(o) was first printed; after machining, its single headline was removed and used in A(i)--on $A3^V$--and then A(i), its two pages of text already set, was sent to press. When finished at press, A(i) remained standing until Compositor J unlocked the forme, transferred its two headlines to E(i), and distributed the two pages of type which he needed in order to set part of sheet E.

There is, of course, another possible explanation. Compositor J could have set sheet A seriatim, but when he finished composing A4, he might have locked up A(i) and sent it to press, and then set $A4^v$. When A(i) had been machined, it was returned to the stone, unlocked, and the $A3^v$ headline transferred to $A4^v$; and A(o) was then sent to press. The objections to this possible operation are two. First, after A(o) was finished at press and unlocked, its headline must necessarily have been somehow set aside--yet kept intact--and for some time since it does not appear again until E(i); and that A(o) <u>was</u> unlocked soon after it was wrought off is clear because, as mentioned above, types from this forme appear early in precedent B(o). And second, this order of printing would have required the compositor to stop setting B(o)--probably about the time he finished setting B1--and distribute the one and one-half pages of A(o) whose types begin appearing in $B2^v$, line 4. But it seems likely that this would have involved a needless delay, because ordinarily Compositor J would have been able to set almost all of B(o) while A(o) was being machined. It seems much more reasonable, then, to conclude that A(o) was printed first, and A(i) second; and that A(i) remained standing until its types and headlines were next used in sheet E.

It is not unreasonable to suppose that J could have profitably kept busy while A(o) was being machined. For

instance, he might have begun, and perhaps completed, casting off his copy; and he might also have distributed several pages of material which he would need for composing sheet B.

When A(o) was finished at press, then, it was unlocked and its single headline transferred to A(i) which was then sent to press. Compositor J then distributed the one and one-half pages of A(o) and perhaps in addition, several pages of other material in order to stock his case prior to setting B(o). Because there are comparatively few confidently identified, distinctive types in A(o), it is difficult to know with certainty the order in which A(o) and the additional material were distributed. But it seems reasonable to suppose that A(o) was not distributed until just before J began setting B(o), for three of the five types which appear in both A(o) and B(o) (see lines 3, 9, and 10 in the graph) appear on $B2^V$; and one of these (S21, line 9) appears early in $B2^V$--on line 4. After setting B1 and $B2^V$ from the types made available by distributing A3 and $A4^V$ (and almost certainly some types already in his case), J then might have distributed about six and one-half pages of additional material. And although we do not know absolutely just how much type the case already contained when A(o) was distributed, there is one bit of evidence which suggests that about two and one-half pages

of type was already in the compositor's case; and this evidence is provided by a fount of small upper case roman "T's," [T] smaller, that is, than those used throughout sheet A and B(o) [T]. This smaller letter appears often and for the first time in B(i), on each of the four pages of the forme. This suggests, either, that when he finished setting sheet A Compositor J's case contained about two and one-half pages of type to which he then added the one and one-half pages of A(o) before he began setting B(o); or, that his case may have been rather more depleted when he finished setting sheet A, in which event he would then have distributed enough other material (at least two and one-half pages) which when combined with the one and one-half pages of A(o) would enable him to set the four pages of B(o).

B(o) was composed, probably in the order 1, 2^v, 3, and 4^v. Although we cannot be absolutely certain about this precise order, it appears, at least, that B1 was the first page to be composed; for it is the only page in the forme which contains any of the italic "us" ligatures (two) mentioned above. After composition was completed, a new skeleton was prepared (Skeleton I, containing headlines a, n, c, and p). B(o) was locked up with Skeleton I, sent to press, and Compositor J then very likely distributed at least four pages of additional material--and plainly <u>not</u> the same material which he may have distributed prior to

setting B(o). For the material distributed now, to be used in composing B(i), contains the stock of small upper case roman "T's" which appear in abundance in all four pages of B(i). The precise order in which the pages of B(i) were composed is again not entirely clear. But it is likely that the forme was set in the following manner: $B1^V$, 2, 3^V, and 4. At any rate this order is indicated by the presence of two types (lines 33 and 34 in the graph) from previously distributed A(o) which do not appear again until $B3^V$. That is, after composing $B1^V$ and B2, Compositor J might have by then "uncovered" these two previously distributed types which had until now been fairly well "covered up" in the sort boxes by the freshly distributed material which contained the small "T's" and which was used to set $B1^V$ and 2. In any event the composition of B(i) was at length completed, Skeleton II (containing headlines m, b, o, and d) was made up, and the forme was presently delivered to the press.

We cannot be absolutely certain that a single compositor set sheet A. It will be seen later that type-recurrence evidence allows us to determine with some accuracy that one compositor or at any rate only one compositor at a given time was at work on sheets C through K. But in the early sheets of a play--and particularly the first sheet--this kind of evidence is of no value unless we know what was distributed in order to set those sheets.

And of course we do not know what was distributed to set the three and one-half pages of sheet A (and most of sheet B) in Titus Andronicus. With regard to spelling evidence (to be detailed in Chapter IV), at least there is no evidence to suggest that more than one compositor was at work at a given time on sheet A. Moreover we remember that there is rather strong evidence that sheet A was set seriatim, and this could imply that the copy for sheet A had not been cast-off before setting began. If this were in fact true, it is indeed difficult to imagine how the copy for sheet A could have been divided between two compositors. In any event it is not apparent that any economies could have been realized by employing more than one compositor on sheet A since it contains only about three and one-half pages of text.

Evidence which would allow us to determine that sheet B was set by one compositor is less abundant than that furnished by subsequent sheets. Type-recurrence evidence presents only a limited amount of information, for we know certainly that only one and one-half pages of A(o) were distributed in order to set a small part of sheet B. How much additional material was distributed and what that material was is unknown. But spelling evidence (and more than that provided by sheet A) indicates that a single compositor set sheet B. [3]

That sheet B was indeed set by formes as shown in the graph is beyond much question. Five identifiable types in sheet A also appear in sheet B, and three of these types--one of them from $A4^{v}$--(see lines 3, 9, and 10 in the graph) reappear fairly early in sheet B--on $B2^{v}$. Granted this is less type-recurrence evidence than might be hoped for (and very much less than that provided by subsequent sheets); but despite the small quantity, the implication provided by this evidence is clear. There is one further bit of evidence which confirms that sheet B was set by formes, evidence supplied by headlines. To look ahead for a moment, we notice in the chart of headlines (see page 70) that the headlines in B(o) next appear in C(o), the precedent forme in sheet C. If it were true that sheet B had been composed seriatim, B(i)--the first forme to be composed--would probably have been sent to press first, and B(o) second; and yet type-recurrence evidence (presented in graph II, before page 82) clearly establishes that B(o) was <u>distributed</u> before B(i) and therefore strongly suggests that B(o) was also <u>composed</u> and printed first. In summary, type-recurrence evidence, even though less than abundant, when combined with headline evidence certainly indicates that sheet B was set by formes and not by consecutive pages.

	A	B 3v	B 4	(1	2v	3	4v)	(1v	2	3v	4)	C 1	2v	3	4v	1v	2	3v	4
1.	n21				X							X							
2.	N22				X							X							
3.	t22				X							X							
4.	t23				X							X							
5.	d22				X							X							
6.	h21					X						X							
7.	k23					X						X							
8.	N21					X						X							
9.	p25					X						X							
10.	t24					X						X							
11.	T21					X						X							
12.	f23						X					X							
13. (n.)	m24											X							
14. (n.)	L21											X							
15. (n.)	h25											X							
16.	C21				X								X						
17.	d21				X								X						
18.	p22				X								X						
19.	u21				X								X						
20. (n.)	k21												X						
21.	C24					X							X						
22. (n.)	o23												X						
23.	T32			X									X						
24.	A21			X										X					
25.	g21			X										X					
26.	M21						X							X					
27.	i23			X										X					
28. (n.)	i30													X					
29. (n.)	u24														X				
30.	h23							X									X		
31.	t21							X									X		
32.	u22									X							X		
33.	n24									X							X		
34.	p34									X							X		
35.	p21							X									X		
36.	A22					X												X	
37.	n21							X										X	
38.	o21							X										X	
39.	u23										X							X	
40.	n25										X							X	
41.	i21										X							X	
42. (n.)	ff23																	X	
43.	G21								X										X
44.	e21									X									X
45.	q21									X									X
46.	O23						X												X
47.	a22							X											X
48. (n.)	K22																		X
49.	b22										X								X
50.	m34								X										X

SHEET C

J distributed B1, 2^{v}, 3, 4^{v} & set C1, 2^{v}, 3, 4^{v}
J " B1^{v}, 2, 3^{v}, 4 & " C1^{v}, 2, 3^{v}, 4

J distributed 8 pages and set 8 pages
Standing: A3^{v} & 4 and sheet C — 10 pages

GRAPH II

Sheet C

Probably while B(i) was still at press, B(o) was distributed in order to restock the type case and prepare for setting sheet C; and although the order in which the individual pages of B(o) were distributed is not absolutely clear, it is at least tentatively suggested: B1 was likely distributed first, then $B4^v$, then B3, and finally $B2^v$. Three of the four distinctive types from B1 (see lines 24, 25, and 27 in the graph) do not reappear before C3; therefore we are probably correct in assuming that the B1 types were first distributed and then immediately covered over in the sort boxes by types distributed from $B4^v$, 3, and 2^v. Not until the first two pages of C(o)--1 and 2^v--were set, then, would the bulk of the B1 types likely be uncovered enough to be picked up by Compositor J.

As mentioned above headline evidence suggests that C(o) was printed (and therefore probably set) first. After distributing B(o) then, Compositor J began setting C(o). The precise order in which he set the various pages of this forme cannot be known with certainty, but it would seem that he set in the "normal" order, that is: C1, 2^v, 3, and 4^v. At least there is one small bit of

evidence which suggests that he set C1 first: this page contains one italic "us" ligature--and it is the only page in the forme (or indeed the sheet) to contain this particular sort.

C(o) was composed, locked up with Skeleton I supplied by B(o), and sent to press. B(i), now wrought off, was distributed in preparation for the setting of C(i). There is but one indication of the order in which B(i) was distributed. It appears that B2 <u>might</u> have been the first page in B(i) to be distributed, because the two distinctive types from that page do not reappear before $C3^V$ (see lines 43 and 50 in the graph). This is indeed only a slight indication and, of course, it requires us to suppose that C(i) was set thus: $C1^V$ 2, 3^V, and 4. That is, if in fact $C1^V$ had been set first (and C2 next), notice that $C1^V$ draws three types from $B1^V$ (see lines 30, 31 and 35) and three more types from $B3^V$ (see lines 32, 33, and 34). Moreover C2 draws two types from $B1^V$ (see lines 37 and 38) and three types from B4 (see lines 39, 40, and 41) as well as a single type from previously distributed B3 (see line 36). Thus $B1^V$, 3^V, and 4 supply types to the first two pages of C(i), but B2 does not supply a type before $C3^V$.[4] But do we know certainly that C(i) was set in this order--1^V, 2, 3^V, and 4? In this instance we cannot be sure, type-shortage evidence being of no value here. It seems illogical to suppose, however, that a single compositor working

from cast-off copy would set the inner forme pages in <u>any other</u> way than 1^v, 2, 3^v, and 4. For if he found that his copy had been cast-off imprecisely and he had more material counted off for 1^v than he could get into the type page, he could remark his copy for 2 with little difficulty. And the same would hold true for pages 3^v and 4. That is, in the absence of any certain evidence to the contrary, it is only reasonable to suppose that a single compositor would ordinarily set the inner forme pages in the following order: 1^v, 2, 3^v, 4 (or at any rate by contiguous pairs, though possibly 3^v, 4 before 1^v, 2). After Compositor J finished setting the four pages of C(i), some delay may have taken place. We notice in the graph that the skeleton in C(i)--Skeleton I--is supplied by precedent C(o). Thus J may have had to wait, although probably not for long, until C(o) had been wrought off, washed, and unlocked. He would then have removed Skeleton I from C(o), transferred it to C(i), locked up the non-precedent forme and sent it to press.

Spelling evidence, as we shall see later, again suggests that a single compositor set the whole of sheet C. But we need not rely upon spelling evidence alone in this sheet. Also useful (and in <u>Titus Andronicus</u>, indeed, more certain) is the evidence provided by type-recurrence, and particularly type distribution. The way in which this kind of evidence can allow us to determine how many compositors

set a given sheet calls for rather careful explanation; but that explanation requires only that we recognize one very simple and perhaps obvious fact; when, say a page of types is distributed into a given case, those types will of necessity subsequently appear in a page, or pages, set from that same case. If, for example (and supposing no delays), types from sheet K1 (of some particular quarto play) next appear in all eight pages of sheet L, it would make clear that the whole of sheet L was set from a single case--the case into which K1 types had been distributed. Not often, however, is the picture so clear, as we shall see it now in sheet C of Titus Andronicus.

In addition to the three types which appear in C1 for the first time in this play (see lines 13-15 in the graph), C1 also draws types from three of the four pages of B(o)--B2^{v}, 3, and 4^{v}--the forme which was distributed just before C1 was set (see lines 1-12); therefore C1 was set from the same case into which B2^{v}, 3, and 4^{v} were distributed. Moreover C2^{v} also contains four types last seen in B2^{v} (see lines 16-19), and a single type last seen in B3 (see line 21); notice also that C2^{v} draws one type from B1 (see line 23). Further C3 contains three types which last appeared in B1 (see lines 24, 25, and 27) and one additional type last seen in B4^{v} (see line 26). Thus the first three pages of C(o)--C1, 2^{v}, and 3 were evidently set from the case into which the four pages of B(o) were

distributed. With regard to $C4^V$ which contains but one distinctive type, and one which does not appear earlier in distributed B(o), but which, instead, appears on $C4^V$ for the first time in this play, we must postpone discussion for a moment.

Since types from B(i) do not reappear before $C1^V$, B(i) was evidently not distributed until just before C(i) was composed. Observe that $C1^V$ contains three types last seen in $B1^V$ (see lines 30, 31 and 35) and three additional types which appeared previously in $B3^V$ (see lines 32-34). $C1^V$ was therefore set from the same case as that into which $B1^V$ and $B3^V$ were distributed. Notice further that C2 also draws two types from $B1^V$ (see lines 37 and 38), plus three types from B4 (see lines 39-41); so $C1^V$ and C2 were set from the same case--the one into which $B1^V$, 3^V, and 4 were distributed. To continue, $C3^V$ contains types last seen in $B3^V$--two of them--(see lines 44 and 45) as well as one type from B2 (see line 43). And C4 draws one type from three pages of B(i)--from $B1^V$ (see line 47), from B2 (see line 50), and from B4 (see line 49). Thus the four pages of C(i) were set from a single case, the one into which the four pages of B(i) were distributed.

But this is not all the evidence. Recall that C1, 2^V, and 3 were set from a single case, into which the four pages of B(o) had been distributed; and all four pages of C(i) were also set from a single case. That both C(i)

and the first three pages of C(o) were set from the same case is clear when we observe that C2 contains a type from B3 (see line 36)--which had been distributed into the case used to set C1, 2^V, and 3; and further that C4 contains one type last seen in $B4^V$ (see line 46)--which also had been distributed into the case from which C1, 2^V, and 3 were set. Thus C1, 2^V, and 3 as well as $C1^V$, 2, 3^V, and 4 were all set from the same case. And what of $C4^V$? We must look ahead for a moment to the graph for sheet D (see graph III, before page 88), and here we find that $C4^V$ was later distributed into a case from which D1 was set (see line 4); but D1 also contains types from the case into which C1 (see line 1) and $C2^V$ (see line 3) were distributed. And recall that C1 and $C2^V$ were earlier set from the same case which furnished types for <u>all</u> pages in sheet C, save $C4^V$. Hence it is clear that all eight pages of sheet C were set from a single case, and we are therefore required to conclude that they were set by one compositor; that is, not more than one compositor was at work at a given time on sheet C. [5]

Type-recurrence patterns as shown in the graph clearly indicate that sheet C was indeed set by formes. No fewer than forty-one types from sheet B reappear in sheet C. Types from B(o) regularly reappear in C(o). Indeed twelve types (see lines 1-12) appear in the very first page of sheet C, and one of these types (see line 12) is seen in

	A	3	4v	3v	4	C (I) 1	2v	3	4v	(I) 1v	2	3v	4	D (II) 1	2v	3	4v	(I) 1v	2	3v	4
1.	t22					X								X							
2.	t24					X								X							
3.	C24						X							X							
4.	u24								X					X							
5.	d22					X								X							
6. (n.)	V21													X							
7.	g21							X							X						
8.	n27					X									X						
9.	t23					X									X						
10.	k23					X									X						
11.	p25					X									X						
12.	u21						X								X						
13.	f24	X													X						
14.	A21							X								X					
15.	T32						X									X					
16.	d21						X									X					
17.	M21							X								X					
18.	L21					X										X					
19.	p22						X										X				
20.	T21					X											X				
21.	f23					X											X				
22.	i25							X									X				
23.	d25							X									X				
24. (n.)	T24																X				
25. (n.)	V21																X				
26.	A22										X								X		
27.	e21											X							X		
28.	d26										X								X		
29.	ff23										X								X		
30.	q21										X								X		
31.	o24					X														X	
32.	n25										X									X	
33.	k21						X													X	
34. (n.)	e22																			X	
35.	p34									X											X
36.	m34												X								X
37.	b22												X								X
38.	k22												X								X
39. (n.)	fi 21																				X
40. (n.)	O25																				X
41. (n.)	k24																				X
42. (n.)	E21																				X
43. (n.)	d24																				X
44.	p21									X											X
45. (n.)	n22																				X
46.	m21												X								X
47. (n.)	g24																				X
48. (n.)	f25																				X
49.	n24									X											X

SHEET D

J distributed C1, 2^{v}, 3, 4^{v} & set D1, 2^{v}, 3, 4^{v}
J " C2 & 3^{v} & " D1^{v} & 2
J " C1^{v} & 4 and [?] & " D3^{v} & 4

J distributed something more than 8 pages & set 8 pages
Standing: A3^{v} & 4 and sheet D – 10 pages

GRAPH III

$B4^V$ and again in C1. Clearly these patterns would not be produced by seriatim setting unless a delay of considerable length took place between sheets B and C, a situation which is not suggested by headline evidence. Moreover while B(i) types regularly reappear in C(i), not a single type from B(i) is seen in C(o) whereas no fewer than seventeen B(i) types appear also in C(i). When we notice that over forty types recur in consecutive sheets, that twelve types reappear in the first page of the second consecutive sheet, and that types regularly move from the outer (or inner) forme of one sheet to the outer (or inner) forme of the following sheet, we have abundant evidence that setting by formes was employed. Thus we can reasonably conclude but one thing: that sheet C was set by formes--and from a single type case.

Sheet D

After C(i) had been locked up and sent to press, Compositor J began distributing C(o) in order to restock his now depleted case. The precise order in which C(o) was distributed is not made clear by type-recurrence evidence. Notice that three pages in C(o)--C1, 2^V, and 4^V (see lines 1-5 in the graph)--furnish types for D1; and the remaining page in C(o)--C3 (see line 7)--furnishes a single type for $D2^V$. Thus at least one type from all four

pages of distributed C(o) appear in the first two pages of D(o). That all of C(o) was distributed before any page of D(o) was set is tolerably certain, then, because types from all pages of C(o)--but types from no other undistributed page--appear for the first time in D(o). Compositor J set the four pages of D(o); and although there is no evidence which establishes clearly the order in which D(o) was composed, there is nothing to prevent us from assuming that the forme was set in the "normal" order--1, 2^V, 3, and 4^V. The skeleton for D(o)--Skeleton II, seen in the graph--was supplied by B(i) whose types had already been distributed in order to set C(i). [6] D(o) was then locked up and sent to press.

By this time we may suppose that the pressmen had finished machining C(i) which J then distributed in order to restock his case and prepare for setting D(i). But perhaps not <u>all</u> of C(i), for it appears that perhaps only C2 and 3^V were distributed and then, without any further distribution, $D1^V$ and 2 were set. It will be seen that $D1^V$ contains four types last seen in C2 (see lines 26, 28, 29, and 30 in the graph), and one type last seen in $C3^V$ (see line 27). Moreover, $D1^V$ and D2 contain <u>no</u> types last seen in the two remaining pages of C(i)--$C1^V$ and 4--but D2 does contain two types from previously distributed C(o), one last seen in C1 (see line 31) and another in $C2^V$ (see line 33). And finally D2 contains one type not previously seen

in this play (see line 34). It would appear then that the case was initially restocked with only two pages of types (C2 and 3^v) before Compositor J began setting $D1^v$ and 2; and further, that the stock of types in his case was getting rather low by the time he finished setting D2. For if $C1^v$ and 4 had in fact been distributed along with C2 and 3^v, we would expect to find a few types from these two pages--and not types from previously distributed C1 and 2^v as well as one new type--reappearing in D2. We are therefore probably correct in supposing that only C2 and 3^v were distributed and $D1^v$ and 2 were set.

Compositor J then distributed $C1^v$ and 4; that these two pages of C(i) were distributed just prior to setting $D3^v$ and 4 is fairly certain, for types from $C1^v$ and 4 do not appear before $D3^v$. After distributing $C1^v$ and C4, J set $D3^v$ and D4. Or did he now distribute some additional material as well? We have reason to suppose that he did. In $D3^v$ we find no fewer than five types (see lines 39-43) which have not appeared previously in this play; and in D4 we notice three additional types (see lines 45, 47, and 48) of this kind. Such a concentration of eight not hitherto seen distinctive types in two pages of the same forme strongly suggests that Compositor J distributed some additional material at this time. The need for further distribution is not at once apparent. Sheet C contains three more lines of text than does sheet D; and C(i) contains

one more line of text than does D(i). Sheet C alone therefore must have provided enough types for setting sheet D. But even though there was no particular need for additional types at this time, J nevertheless almost certainly distributed some additional material. And since there is no evidence that a delay resulted because of this additional distribution, we can only assume that for some reason the press was slowed down, and that he took this opportunity to restock his case. Compositor J finished setting the text of D(i), locked up the forme with Skeleton I--supplied by C(i)--and sent it to press, which had by now probably finished machin ing D(o).

Both formes of sheet D were evidently set from a single case. D1 contains three types last seen in C1 (see lines 1, 2, and 5 in the graph), one type last seen in $C2^V$ (see line 3), one further type which last appeared in $C4^V$ (see line 4), as well as one type which has not appeared previously (see line 6). Therefore D1 was set from the same (single) case into which C1, 2^V, and 4^V were distributed. $D2^V$ also draws types from C1 (see lines 8-11), and $C2^V$ (see line 12), plus one type from previously distributed A3 (see line 13). So D1 and $D2^V$ were evidently set from the same case. Moreover D3 has types which were last seen in C1 (see line 18), $C2^V$ (see lines 15 and 16), and C3 (see lines 14 and 17), so it too was set from the same case as D1 and $D2^V$. Finally, $D4^V$ also contains

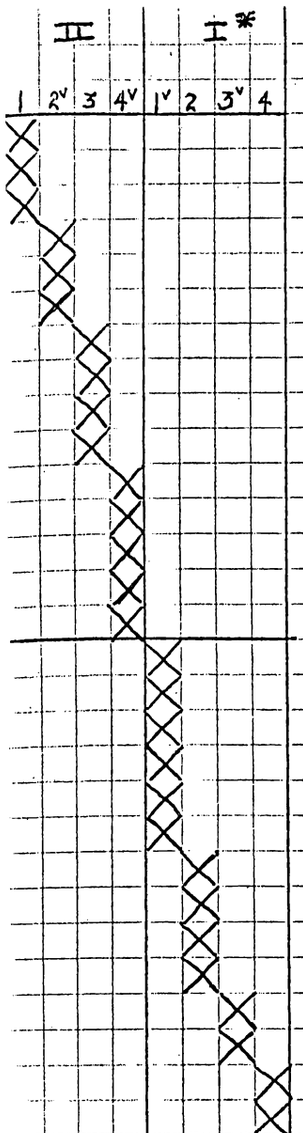
types which last appeared in C1 (see lines 20 and 21), $C2^V$ (see line 19), and C3 (see lines 22 and 23), as well as two types which have not previously appeared in the play (see lines 24 and 25). Therefore $D4^V$ was set from the same case as D1, 2^V, and 3--the case into which C1, 2^V, 3, and 4^V had been distributed.

$D1^V$ contains types which last appeared in C2 (see lines 26, and 28-30) and in $C3^V$ (see line 27). Further, D2 also draws one type from C2 (see line 32). Thus $D1^V$ and D2 were set from the same case, the one into which C2 and 3^V were distributed. Moreover, D2 contains one type from previously distributed C1 (see line 31) and an additional type from previously distributed $C2^V$ (see line 33). Recall that the case into which C1 and 2^V were distributed was used to set all four pages of D(o). Thus D(o) <u>and</u> $D1^V$ and D2 were all set from the same case. It is clear, moreover, that $D3^V$ and 4 were set from the same case: $D3^V$ contains types which last appear in $C1^V$ (see line 35) and C4 (see lines 36-38); and D4 also contains types from $C1^V$ (see lines 44 and 49) and C4 (see line 46). But were these two pages of D(i) set from the <u>same</u> case as D(o) and $D1^V$ and 2? By looking ahead to the graph for sheet F (see graph V, before page 102), we can determine that $D3^V$ and 4 were in fact set from the same case which was used to set the other six pages of sheet D. The four pages of D(i) were not

distributed until just before precedent F(i) was composed. $D3^V$ and D4 types then next appear in $F1^V$ (and F2). Also one type from previously distributed D3 (see line 1) next appears in $F1^V$. And we have already seen that D3 was set from the same case as D1, 2^V, 4^V, 1^V, and 2. $D3^V$ and D4 then were set from the same case as the other six pages of sheet D; so all of sheet D was set from a single case. And it should also be noted that spelling evidence (to be discussed later) supports this conclusion. Type distribution evidence provided by sheet C and especially by sheet D should make it clear that individual types can indeed furnish valuable information toward determining the number of cases from which a given sheet was set. And type-distribution evidence of precisely this kind is provided by all of the subsequent sheets. Therefore the complex patterns which indicate that a given sheet was set from a single case will not hereafter be presented in full.

Abundant type-recurrence evidence as it has been presented in the graph makes it virtually certain that sheet D was in fact set by formes. Thirty-six types appear in sheet C and then reappear in sheet D. Even more striking is the fact that no less than five types (see lines 1-5 in the graph) from sheet C next appear in the first page of sheet D--in D1--and one of these types (see line 4) is found in the last page of sheet C (in $C4^V$ that

	A	B				C								D	II				I				E
		3v	4	1v	2	3v	4	1	2v	3	4v	1v	2	3v	4		1	2v	3	4v	1v	2	3v	4
1.	V21																			X				
2.	n21	X																						
3.	(n.) O22																							
4.	T21																			X				
5.	I21						X																	
6.	a22														X									
7.	T32																		X					
8.	u21																	X						
9.	(n.) w22																							
10.	(n.) o21																							
11.	m24							X																
12.	d21																		X					
13.	L21																		X					
14.	f24																	X						
15.	(n.) P21																							
16.	d25																			X				
17.	M21																		X					
18.	p24	X																						
19.	(n.) T21																							
20.	(n.) p26																							
21.	(n.) h29																							
22.	C21		X																					
23.	o23								X															
24.	i30									X														
25.	(n.) I22																							
26.	t22																X							
27.	t24																X							
28.	d22																X							
29.	(n.) e24																				[			]



SHEET E

J distributed A3v & 4 and D1, 2v, 3, and 4v & set sheet E

J distributed 6 pages & set 8 pages
Standing: D(i) and sheet E – 12 pages

GRAPH IV

is) as well as in the first page of sheet D (in D1). This would be an impossibility if sheet D had been set by consecutive pages, unless of course a major delay took place between sheets C and D. And no such delay is indicated by headline evidence. It is well to observe also that C(o) types regularly reappear in D(o) and C(i) types regularly reappear in D(i)--the kind of type-recurrence patterns we would expect to find in setting by formes. Based on this rather overwhelming evidence, [7] then, we can be almost certain that sheet D was set by formes; and that it was set from one case by a single compositor.

Sheet E

By the time Compositor J finished setting D(i) and had locked up the forme, D(o) had probably been wrought off; D(i) was sent to press, and in order to restock his case and prepare for setting E(o), J then distributed the four pages of D(o). But he did not distribute D(o) alone at this time; he distributed, in addition, the two pages of A(i)--3^v and 4--which had been standing for some time. Compositor J probably first distributed D(o) thus: D1, 2^v, 3, and 4^v; and he then distributed A4 and $A3^v$. After D(o) and A(i) were distributed, he began setting E(o). That E(o) was composed first is strongly suggested by headline evidence: the first set of headlines available for use in

sheet E are those found in now wrought-off D(o)--b, o, d, and m, comprising Skeleton II--which then next appear in E(o) as seen in the graph. That E(o) was composed in the order 1, 2^v, 3, 4^v is to some extent suggested by one bit of type-shortage evidence. One italic "us" ligature appears in E1, and it is the only sort to be found in the outer forme.[8] Hence we may suppose that E1 was composed first, followed by 2^v, 3, 4^v, and certainly there is no evidence to question this normal order of composition. The four pages of E(o), then, were composed; Skeleton II, containing headlines b, o, d, and m, was transferred from distributed D(o); and E(o) was locked up and sent to press.

There is nothing to prevent us from assuming that by now the pressmen had finished machining D(i), and that they then began machining E(o). We would normally expect that Compositor J would now distribute D(i) and then set E(i), the general order of distribution and composition which he employed in sheets C and D. But this seems not to have been the case, for D(i) was not, in fact, distributed at this time. Instead J began setting E(i) without further distribution, probably in the order 1^v, 2, 3^v, and 4. Again there is no conclusive evidence that this was the precise order of composition, but there is, on the other hand, no evidence which mitigates against this assumption. And indeed one small bit of type shortage evidence would seem to support the proposed order of 1^v, 2, 3^v, 4. It

was mentioned earlier that small upper case "T's" were sometimes substituted for the normal fount. In E(i) the regular "T's" appear throughout $E1^v$, 2, and 3^v; but in E4 no regular "T's" are seen and instead five of the smaller "T's" appear for the first time in the forme. This would suggest, at the very least, that E4 was the last page of the forme to be composed.

That the four pages of E(i) were composed without any further distribution of sheet D (that is, D(i)) is clear. Notice that <u>no</u> types from D(i) reappear in E(i); that, instead, E(i) pages are composed from types made available from already distributed D(o) and $A3^v$, 4 (see lines 16, 17, 26-28; also lines 18 and 22 in the graph), from previously distributed $C2^v$ and 3 (see lines 23 and 24), and by five types which have not appeared previously in <u>Titus Andronicus</u> (see lines 19-21, 25, and 29). The concentration of three not hitherto noticed types (see lines 19-21) <u>might</u> suggest (and it is perhaps no more than a possibility) that J distributed some small amount of additional material (that is, not from <u>Titus Andronicus</u>) just before or perhaps after he began setting $E1^v$. This much at any rate is clear: Compositor J set the four pages of E(i) without any further distribution of sheet D. E(i) was then locked up, two of its headlines--"n" and "a" on 1^v and 2--being taken from 1^v and 2 in undistributed D(i) and the two remaining headlines--"q" and "e" on 3^v and 4--

being supplied by already distributed $A3^v$ and 4. That the headlines from $A3^v$ and 4 would be used now in E(i) is, it seems, easily enough explained: these two pages of text had only recently been distributed, and the headlines on these pages were therefore readily available for further use. At least we might suppose that they could have been transferred to $E3^v$ and 4 rather more quickly than could the headlines on $D3^v$ and 4 whose type pages had yet to be distributed. E(i) was then locked up with Skeleton I*, containing headlines "n," "a," "q," and "e," and readied for the press.

It seems desirable to postpone any further discussion of type-recurrence evidence in sheet E for a moment in order to comment upon the rather irregular pattern of distribution and composition noticed here. Two pertinent questions now arise: Why did Compositor J distribute only one forme of sheet D plus two pages of sheet A and then set the whole of sheet E? And how was he able to do this; how indeed could he have had enough type in his case after distributing only six pages to go on and set eight pages? And it seems advisable to deal with these questions in reverse order. There is in fact considerable evidence to suggest that he could have managed to set the whole of sheet E after distributing only these six pages--and without encountering a critical shortage of types. First, D(o)--one of the formes distributed before sheet E was set--

contains little "white space"; that is, little space is wasted by, for example, leaving a blank line above and/or below stage directions. Only on D1 in fact do we find <u>any</u> white space, and here only three lines. $D2^v$, 3, and 4^v contain no blank lines; and indeed all three pages are rather full of types: $D2^v$ contains one turnover; and both D3 and 4^v show one stage direction at the end of a line rather than centered on the page. The two pages of A(i)--3^v and 4--are also worth noticing. $A3^v$ contains no "white space"; and A4, although it does contain two blank lines, is interesting for yet another reason to be mentioned presently. We find therefore that D(o) plus the two pages of A(i) contain 207 lines of text (including stage directions set on separate lines). Sheet E, on the other hand, contains a considerable amount of "white space." Indeed only three pages in the sheet do not contain any blank lines (2^v, 3^v, and 4^v). The remaining five pages contain no less than sixteen lines of white space. We find that sheet E, then, contains a total of 264 lines of text or, in its eight pages, only 57 lines more than that found in the six pages of D(o) and A(i).

Nor is this the only interesting matter. On $E1^v$ (in non-precedent E(i)) we find an eight-line passage of essentially italic type. It is interesting to note that A4 (although, as was mentioned earlier, it does have two lines of white space) also contains a rather extended and

essentially italic passage--a four-line stage direction. It seems not at all unreasonable to assume, then, that Compositor J distributed only six pages--D(o) and A(i)--just before setting the eight pages of sheet E for three reasons: (1) sheet E would require less type than would a sheet with eight full pages (35 lines per page); (2) more than the usual amount of italic type was needed in E(i)--for the long passage on $E1^{v}$--and the two pages of A(i) contain roughly the same amount of italic type found in all four pages of D(i), which we would normally have expected Compositor J to distribute prior to setting E(i); and (3) a concentration of types not hitherto seen in the play (see graph III, before page 88) strongly suggests that J, while he was setting D(i), probably distributed some additional material--in addition, that is, to the eight pages of sheet C which he also distributed before setting sheet D. [9]

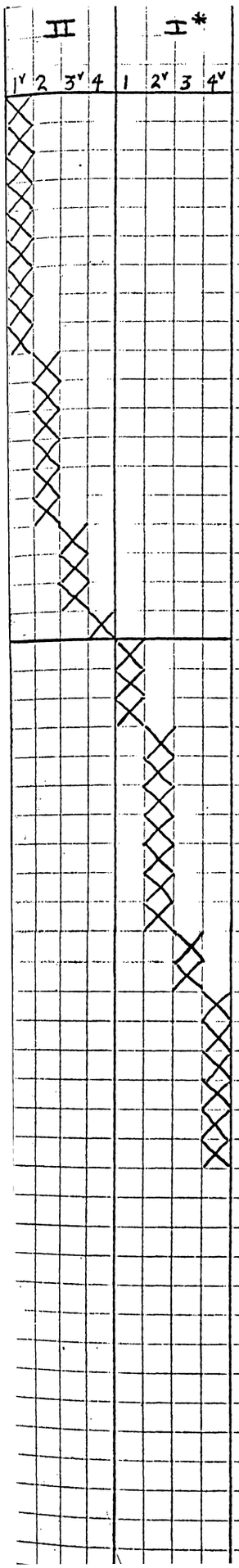
How Compositor J was able to set sheet E without first distributing eight pages of type, then, seems reasonably clear. The equally interesting question of why he did so, however, is not so easy to answer. Through the first four sheets of the play there is no certain evidence that he was not keeping up with the press. And indeed there is some indication that while he was composing the inner forme of sheet D, he was slightly ahead of the press, at least enough ahead to be able to distribute some additional material without causing a delay. Moreover there is no

evidence to suggest that a different compositor, perhaps one who was less skilled and slower, was at work on sheet E. In short, no certain answer to the second question--why?--is immediately apparent. Instead only tentative suggestions can be offered: although J, through sheets A to D, apparently had no great difficulty in matching the speed of presswork, for some reason he might have fallen behind the press while he was composing sheet E. Compositor J was probably in no great hurry when he began distributing D(o) and A(i) prior to setting E(o), for if he had been behind at this time it is most difficult to imagine why he would have taken time to distribute a full six pages before he began setting E(o). But perhaps the additional time required for distributing the two extra pages now, plus the time it took to distribute the additional material while he was composing D(i) may have got him behind. And he therefore had to go on and set non-precedent E(i) without any further distribution of D(i) pages in order to ready E(i) for press more quickly. A second suggestion of course is that Compositor J set the eight pages of sheet E after distributing only six pages--D(o) and A(i)--simply because he also distributed about two additional pages of types, part while he composed D(i) and some more while he was setting E(i).[10]

Spelling evidence strongly suggests that sheet E was set by one compositor. And the more illuminating type-

recurrence evidence makes it virtually certain that sheet E was set from a single case. Moreover type-recurrences, as we have shown them in the graph, indicate that sheet E was in fact composed by formes. Twelve types from sheet D, all of them of course from D(o), reappear in all pages of sheet E but one (E2). Perhaps more significant is the occurrence of two $D4^{v}$ types--one in E1 (see line 1 in the graph) and another in $E1^{v}$ (see line 16). Unless some delay of considerable length occurred between sheets D and E, type recurrences of this kind would not ordinarily present themselves had sheet E been set seriatim. And headlines show no delay between sheets D and E. Type-shortage evidence also supports the suggestion that sheet E was set by formes. The small upper-case "T's" mentioned earlier occur on only one page of sheet E--on E4--where, moreover, no regular size "T's" appear. Had sheet E been set seriatim, we would expect to find this rather clear evidence of shortage not on E4 but on $E4^{v}$. And further distribution at this time is not confirmed by type-recurrence evidence. But if sheet E were in fact composed by formes, outer forme first, and the inner forme second--in the order 1^{v}, 2, 3^{v}, and 4--E4 is precisely the place where we might expect to find evidence of type shortage. This small bit of evidence provided by type shortage together with a fair amount of type-recurrence evidence, then, makes it virtually certain that sheet E was set not by consecutive pages but by formes; and that the

	A		C				D	II				I				E	II				I*				F
		3	4v		1	2v	3	4v		1	2v	3	4v		1v	2	3v	4		1	2v	3	4v		1v	2	3v	4
1.	A21											X																
2.	h23																X											
3.	n21																	X										
4.	k24																X											
5.	t21																X											
6.	u22																X											
7.	b22																X											
8.	O25																X											
9. (n.)	m23																											
10.	k22																X											
11.	p34																X											
12.	n22																	X										
13.	g24																	X										
14.	f25																	X										
15.	d21	X																										
16.	o24															X												
17.	ff23														X													
18.	n25															X												
19.	e22															X												
20.	h25				X																							
21.	d21																						X					
22.	f24																						X					
23.	T32																					X						
24.	g21																					X						
25.	t23																					X						
26.	k23																					X						
27.	p25																					X						
28.	T21																				X							
29.	w22																					X						
30.	A22														X													
31.	f22														X													
32.	d26														X													
33.	m24																						X					
34. (n.)	g23																											
35. (n.)	d23																											
36.	f23												X															
37. (n.)	e21																											



SHEET F

J distributed D1v, 2, 3v, and 4 & set F1v, 2, 3v, and 4

or [J " D3v, 4 & " F1v, 2
J " D1v, 2 & " F3v, 4]

J " E1, 2v, 3, and 4v & " F1, 2v, 3, and 4v

J distributed 8 pages & set 8 pages
Standing: E(i) and sheet F – 12 pages

GRAPH V

entire sheet was set from one case by no more than one compositor.

Sheet F

The press had probably finished machining E(o) by the time Compositor J finished setting E(i), which he then locked up and sent to press. We would normally expect that wrought off E(o) was then unlocked and distributed in preparation for setting the precedent forme of sheet F. But such was not the case, for type-recurrence evidence presented below makes it fairly certain that E(o) was left standing for a time. Before considering the exact order of distribution prior to the composition of sheet F, however, some discussion of the order in which sheet F was composed is required.

In the last four sheets--B, C, D, and E--the outer forme was always precedent; that is, it was composed and printed first. In sheet F, however, it is tolerably certain that the inner forme was composed and printed first. This order is strongly suggested by headline evidence. It will be noticed in the graph that F(i) takes its four headlines--comprising Skeleton II--from E(o), the precedent forme of sheet E; F(o), on the other hand, takes its headlines, which belong to Skeleton I*, from E(i), the non-precedent forme--and the forme which, we must suppose, was

being machined while the precedent forme of sheet F was being composed. Therefore unless we are to assume that some delay took place between sheet E and sheet F, and there is no evidence which suggests that this happened, we are forced to conclude that Compositor J first composed F(i) and then composed F(o). [11]

Type recurrence indicates the following order of distribution before the composition of sheet F. Instead of distributing E(o) shortly after it was wrought off, Compositor J first distributed previously wrought-off D(i) which was still standing. The order in which D(i) was distributed, moreover, was likely $D1^{v}$, 2, 3^{v}, and 4. But perhaps J did not distribute all four pages of D(i) before he began composing F(i); perhaps instead he distributed only two pages of D(i)--3^{v} and 4--and then set $F1^{v}$ and 2 (see lines 1-15 in the graph) and then distributed the two remaining pages of D(i)--1^{v} and 2--in order to set the two remaining pages of F(i)--3^{v} and 4 (see lines 16-19). There is, in short, no evidence which establishes with absolute certainty whether the four pages of D(i) were distributed and then four pages of F(i) were set; or whether J distributed only two pages of D(i), set the first two pages of F(i), and then distributed the two remaining pages of D(i) and composed the last two pages of F(i). But of one thing we can be certain: E(o) was not distributed as soon as it was wrought off. Even

though its skeleton (II) was stripped and transferred to precedent F(i), its type pages remained standing and Compositor J distributed the four pages of D(i) in order to set F(i)--as lines 20-37 in the graph make abundantly clear.

By the time F(i) was composed and readied for press, E(i) was likely wrought off and the pressmen began machining F(i). E(o) was then distributed, and F(o) was set. Again there is nothing to prevent us from assuming that F(o) was set in the normal order--1, 2^v, 3, and 4^v; and the order in which E(o) was distributed was very likely E1, 2^v, 3, and 4^v. We notice however that <u>no</u> E1 types reappear in F(o). Are we to assume, then, that E1 was not distributed now along with the other pages of E(o), but left standing? Although we cannot be absolutely certain, all four pages of E(o) were probably distributed before F(o) was composed. Recall that E1 (as well as $E2^v$) contained only three distinctive types (see graph IV, before page 94). It is possible, then, that Compositor J, simply by chance, would not happen to pick up these particular types from his case and use them in composing the pages of F(o). This alone is perhaps not a sufficient answer, for we notice that F3 and 4^v not only contain no types last seen in E1 and 2^v, but also that no fewer than three previously distributed $D1^v$ types (see lines 30-32 in the graph) reappear in the last two pages of F(o); F3 and 4^v, in addition, contain three types not previously seen in

the play (see lines 34, 35 and 37) as well as one type from previously distributed $D4^{v}$ (see line 36). The presence of so many previously distributed types (4) and "new" types (3) in the last two pages of F(o), however, is in no way conclusive evidence that E1 was not distributed along with the other pages of E(o). And indeed there is some explanation for the recurrence of so many previously distributed types as well as "new" types in F3 and 4^{v}. First, D(i), distributed in order to set F(i), contains 137 lines of text; F(i), however, contains only 134 lines of text, so the appearance of some $D1^{v}$ types--probably the first page of D(i) distributed and therefore not likely to reappear in concentration until several pages later--in the later pages of F(o) is not too surprising. Second, E(o), distributed in order to set F(o), contains 133 lines of text, but F(o) contains 136 lines of text; moreover one page of E(o)--E3--contains a three-line stage direction of essentially italic type, so in effect E(o) contains six fewer lines of roman text than does F(o), the forme which was composed just after E(o) was distributed. This too would seem to explain why several previously distributed types as well as several new types appear in F3 and $F4^{v}$.

Because sheet F has at least a few more lines of roman text than does D(i) combined with E(o), it seems reasonable to assume that Compositor J would distribute

eight pages in order not to run critically short on types while setting sheet F. There is no way to prove that he did not distribute E1 with the other pages of E(o), but rather that he distributed some other (non-quarto) material --which might account of the presence of three types in $F4^v$ which have not appeared previously in the play. But why J would choose to distribute, say a quarto page of some other book, rather than E1 (which he had almost certainly set himself) is indeed difficult to imagine. Thus it is not unreasonable to conclude that, despite the fact that no E1 types reappear in F(o), the four pages of E(o) were distributed and F(o) was then composed. Skeleton I* was stripped from E(i) and transferred to F(o) which was then locked up and readied for the press.

As we shall see later, spelling evidence suggests that sheet F was set by a single compositor; and indeed this suggestion is strongly supported by abundant type-recurrence evidence which indicates that this sheet was evidently set from one type case. There can be little doubt that the manner in which sheet F was composed is that shown in the graph: by formes. Ten types appear in sheet E (in E(o) exclusively) and then reappear in sheet F (in F(o) exclusively). That is, types regularly reappear in consecutive sheets; and this is, of course, a recurrence pattern ordinarily produced not by seriatim setting but rather by setting by formes. Even more striking is the

fact that two distinctive types appear in $E4^V$ (see lines 21 and 22 in the graph) and again in F1. Obviously this could not happen in seriatim setting unless some delay took place between sheets E and F, and there is certainly no evidence to suggest that such a delay did in fact occur. The third bit of evidence which suggests that sheet F was set by formes is perhaps even more persuasive. If sheet F had been composed by consecutive pages, distributed E(o) types would almost certainly reappear not only in F1, the first page in the sheet, but also in $F1^V$ and F2, the second and third <u>consecutive</u> pages. But in fact they do not, for we notice that E(o) types reappear <u>only</u> in F(o) pages--1, 2^V, 3, and 4^V.

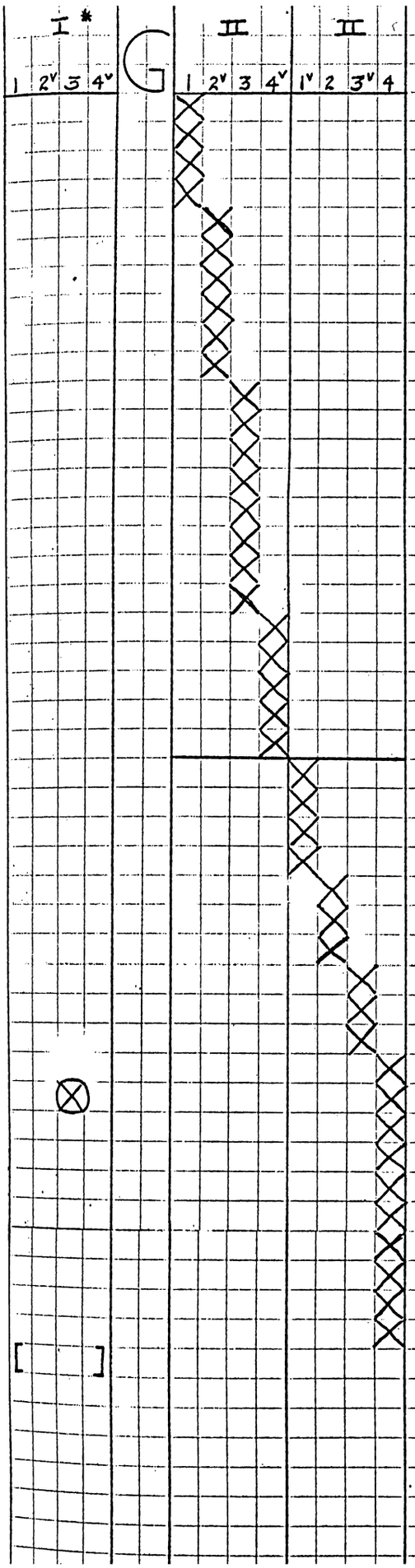
In the light of type-recurrence evidence set forth in the graph for sheet F, there is in fact only one <u>possible</u> way that sheet F could have been set seriatim:

Compositor J	distributed		$E4^V$	& set	F1
"	"	"	$D3^V$ & D4	& "	$F1^V$ & F2
"	"	"	$D1^V$, $E2^V$, & E3	& "	$F2^V$ & F3
"	"	"	D2 & (E1?)	& "	$F3^V$, F4, & $F4^V$

This possible order of distribution and composition, however, is questionable for two reasons. First, had sheet F in fact been set seriatim Compositor J would have needed considerably more time to compose a full forme (inner F)

	C	1	2v	3	4v	D	1	2v	3	4v	1v	2	3v	4	E	II 1	II 2v	II 3	II 4v	I* (1v)	I* (2)	I* (3v)	I* (4)	F	II (1v)	II (2)	II (3v)	II (4)
1.	M21																			X								
*2.	u21																				X							
3.	C21																											
4.	(n.) W21																			X								
5.	d25																X											
6.	O21																			X								
7.	p24																			X								
8.	I21																			X								
9.	p26																			X								
10.	h21	X																										
11.	n23																						X					
12.	N22	X																										
13.	i30																				X							
14.	V21															X												
15.	E21												X															
16.	n27							X																				
17.	(n.) p27																											
18.	(n.) f26																											
19.	C23	X																										
20.	d22																						X					
21.	I24									X																		
22.	n21															X												
23.	t22																					X						
24.	ff23																										X	
25.	k21											X																
26.	k22																									X		
27.	a22																X											
28.	n21																								X			
29.	u22																								X			
30.	p34																								X			
31.	I21																X											
32.	d24												X															
33.	A21																								X			
34.	p22									X																		
35.	A22																											
36.	t21																								X			
37.	p21													X														
38.	e22																											X
39.	k24																								X			
40.	m23																								X			
41.	(n.) f27																											
42.	o24																										X	
43.	n24													X														

* Prior to G1 u21 last seen in A4.



SHEET G

J distributed E1v, 2, 3v, and 4 & set G1, 2v, 3, and 4v
J " F1v, 2, 3v, and 4 & " G1v, 2, 3v, and 4

J distributed 8 pages & set 8 pages
Standing: F(o) and sheet G — 12 pages

GRAPH VI

and get it ready for machining, and there is no reason to think that after composing the four preceding sheets by formes (B, C, D, and E), he would now switch to seriatim setting. Second, and more important, the above order is made further suspect when we notice again that no E(o) types reappear in the pages of F(i)--1^v, 2, 3^v, and 4--even though at least three (and perhaps all four) pages of E(o) would have been distributed before Compositor J began setting $F3^v$ and F4. And it will be remembered that all eight pages of sheet F were set from the same case. Thus because considerably more time would have been required to prepare the first forme of sheet F for the press; and because, in addition, it is to the highest degree improbable that no types from E(o) would reappear in the pages of F(o), we can be pretty certain that sheet F was not set seriatim but, instead, by formes.[12]

Sheet G

By the time Compositor J composed and locked up F(o), F(i) was likely wrought off and the machining of F(o) began. But F(i) was not distributed immediately. Instead J distributed the four pages of previously wrought-off E(i), probably in the order E4, 3^v, 2, and 1^v; and he then composed G(o). There is no type-shortage evidence which

establishes the precise order in which the pages of G(o) were composed; but there is nothing to prevent us from assuming that the forme was composed in the normal manner and, to be sure, the order which we have seen Compositor J following in previous sheets: 1, 2^v, 3, and 4^v. The four pages of G(o) contain ten types which last appeared in the four pages of E(i); but in addition G(o) pages show no fewer than thirteen types which were <u>not</u> last seen in E(i). Of these thirteen types, three have not appeared previously in the play, and the remaining ten are from previously distributed pages: three from C1, two from E1, and one each from A4, $D2^v$, 3^v, 4^v, and $E2^v$. The reason for the appearance in G(o) of so many previously distributed types, however, can be explained. The four pages of G(o) show little "white space"; indeed the forme contains 136 lines of text. But E(i), the forme distributed just before G(o) was composed, contains considerably more "white space"; and in addition (as we have already noted) $E1^v$ contains an eight-line passage of mostly italic type. Hence E(i) contains only 123 lines of essentially roman text, or thirteen lines less than G(o). Thus it is not at all surprising that the pages of G(o) contain so many (13) previously distributed types; and nine of the thirteen types, as we would expect, are found in the last two pages of G(o) to be composed--3 and 4^v. G(o), then, was

composed, Skeleton II was stripped from F(i) and transferred to G(o), and the forme was readied for press.

Compositor J distributed the four pages of F(i), probably in the order 2, 3^v, 1^v, and 4, and he then composed G(i); the order in which these pages were composed is to some extent suggested by the type-shortage evidence. Two italic "us" ligatures are contained in G(i): one is found in $G1^v$, another in G2. This at least suggests that $G1^v$ and 2 were the first pages of the forme to be composed. And since we can assume that a single compositor would ordinarily compose the four inner forme pages by contiguous pairs, we may reasonably conclude that G(i) was composed thus: $G1^v$, 2, 3^v, and 4.

Not all of the distinctive types noticed in G(i), however, were last seen in F(i), the forme distributed just before G(i) was composed. Three of the four pages of G(i)--1^v, 3^v, and 4--contain types last seen in previously distributed pages. Indeed seven previously distributed distinctive types and one type which has not appeared earlier in the play are next seen in G(i). Two previously distributed types next appear in $G1^v$: one from D2 (see line 25 in the graph) and another from $E2^v$ (see line 27). Two more types from pages distributed earlier are next seen in $G3^v$: one from $D3^v$ (see line 32) and a second from $E2^v$ (see line 31). And, as we might expect, the last page of G(i) to be composed--G4--contains three

previously distributed types: two from D4 (see lines 37 and 43) and one from $D4^v$ (see line 34) as well as one type not hitherto seen in the play (see line 41). That G(i) contains seven types from previously distributed pages (five of the seven being found on 3^v and 4, the last two pages of G(i) to be composed) plus one "new" type, however, is not surprising. G(i) contains 138 lines of text; but F(i), the forme distributed just before G(i) was composed, contains only 133 lines of text; or F(i) contains about five lines of type less than the amount needed to set G(i), so we might well expect that several distinctive types from previously distributed pages would reappear in G(i). We have noticed that distinctive types from previously distributed pages appear in both G(o) and G(i). It is well to remember that the first six sheets of Titus Andronicus, sheets A-F (as well as sheet G), were set from a single case. That we should find a few types from previously distributed pages in sheet G (or in fact in any sheet but the first few) is therefore in no way peculiar; indeed in a play set from one case, it is precisely what we should expect.

There is, however, one type seen in G4 which is peculiar. A22 (see line 35) is clearly anomalous. Let us not fail to notice that it is the only type from F3 which next appears in sheet G; in fact it is the only type from any F(o) pages to be found in any page of sheet G. (See

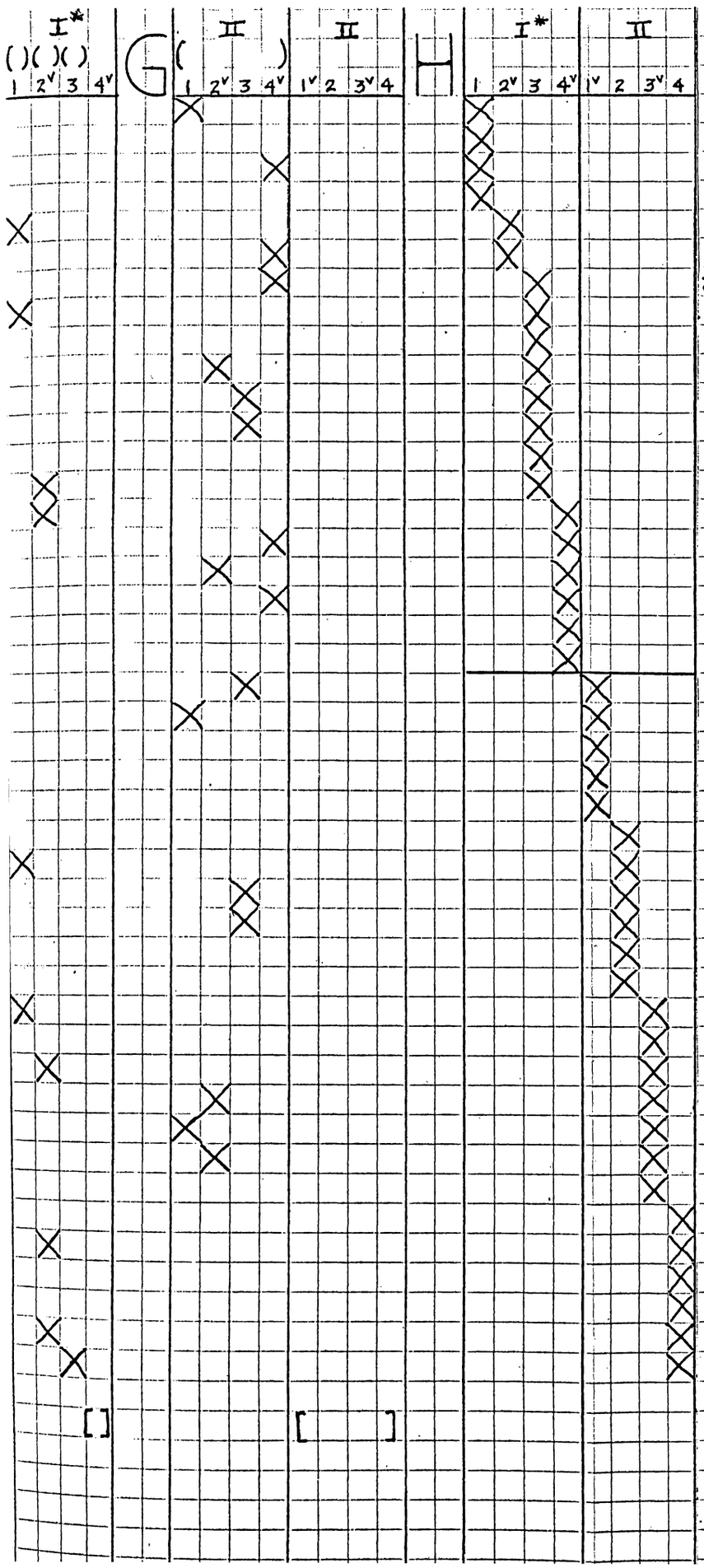
plate on the following page). Why this single F(o) type next appears in G4 cannot, of course, be determined with absolute accuracy. This much is clear, however: the type was somehow accidentally displaced. It will be noticed from the plate that the type is the initial letter in the line and thus peripheral; and such types are more liable to accidental displacement than those in the middle of a line of text. Perhaps it was pulled out by an inkball; or it may have been displaced while F(o) was being rinsed. At any rate it was returned to the sort box and thus made available for composition before <u>any other</u> types from the four pages of F(o) were distributed.

Compositor J finished setting the four pages of G(i); he then locked up his forme with Skeleton II which, as we see in the graph, was last used in precedent G(o), and sent non-precedent G(i) to press. And we may reasonably assume that J would not have had to wait long (if at all) before Skeleton II was made available for use in G(i).

The same kind of type-distribution evidence discussed at length in sheets C and D indicates that all eight pages of sheet G were set from one case. And spelling evidence also suggests that a single compositor set sheet G. There is substantial evidence that sheet G was indeed set by formes as it has already been shown in the graph. Disregarding the anomalous type, no fewer than eleven distinctive types in sheet F are seen also in sheet G; that is, they

		C	1v	2	3v	4	D	1	2v	3	4v	E	1v	2	3v	4	E	1	2v	3	4v	F	1v	2	3v	4
	1.	M21																								
	2.	C24						X																		
	3.	e24																								
	4.	h29																				X				
	5.	h25																								
	6.	m25																								
	7.	c22																								
	8.	d21																								
	9.	h23																								
	10.	T21																								
	11.	i30																								
	12.	f26																								
	13. (n.)	y23																								
	14.	T32																								
	15.	k23																								
	16.	d22																								
	17.	d25																								
	18.	n21																								
	19.	P21																			X					
	20. (n.)	m22																								
	21.	h35																								
	22.	u21																								
	23. (n.)	V22																								
	24. (n.)	T26																								
	25. (n.)	p28																								
	26.	G21			X																					
	27.	f24																								
	28.	n23																								
	29.	p27																								
	30.	n25																							X	
*	31.	g22																								
	32.	L22																								
	33.	e21											X													
	34.	T21																								
	35.	p24																								
	36.	W21																								
	37.	p26																								
	38. (n.)	T28																								
#	39.	S21																								
	40.	p25																								
	41.	u23		X																						
	42.	f25																							X	
	43.	w22																								
	44.	f22																								

* Prior to H2, g22 last seen in A4v.
\# " " H4, S21 " " " B2v.



SHEET H

J distributed F1, 2v, and G(0) & set H(0)
J " — & " H1v, 2, 3v
J " F3 & " H4

J distributed 7 pages & set 8 pages
Standing: F4v, G(i), and sheet H - 13 pages

GRAPH VII

of Titus Andronicus.

VVhere life hath no more interest but to breath.
Marcus. Alas poore hart, that kisse is comfortlesse,
As frozen water to a starued snake.
Titus. VVhen will this fearefull slumber haue an end?
Mar. Now farewell flattrie, die *Andronicus*,
Thou dost not slumber, see thy two sonnes heads,
Thy warlike hand, thy mangled Daughter heere:
Thy or[illegible] banisht sonne with this deere sight,
Str[illegible] pale and bloodlesse, and thy brother I,
E[illegible]ike a stony image cold and numme.
Ah now no more will I controwle thy greefes,
Rent off thy siluer haire, thy other hand,
Gnawing with thy teeth, and be this dismall sight
The closing vp of our most wretched eies:
Now is a time to storme, why art thou still?
Titus. Ha, ha, ha.
M. VVhy dost thou laugh? It fits not with this houre.
Titus. VVhy I haue not another teare to shed;
Besides this sorrow is an enemie,
And would vsurpe vpon my watrie eies,
And make them blinde with tributarie teares.
Then which way shall I find Reuenges Caue,
For these two heads doe seeme to speake to mee
And threat me, I shall neuer come to blisse,
Till all these mischiefes be returnd againe,
Euen in their throats that hath commited them,
Come let me see what taske I haue to doe,
You heauie people circle me about.
That I may turne mee to each one of you,
And swoare vnto my soule to right your wrongs,
The vow is made, Come brother take a head,
And in this hand the other will I beare,
And *Lauinia* thou shalt be imployde in these Armes,
Beare thou my hand sweet wench betweene thy teeth:
As for thee boy, goe get thee from my sight,

F3 in Titus Andronicus, showing upper case "A" which was somehow accidentally displaced.

are found in consecutive sheets. Moreover two of these sheet F types (see lines 24 and 26 in the graph) reappear in the second page of sheet G--in $G1^{v}$. But even more conclusive is the fact that no types from F(i)--the only forme of sheet F to be distributed before sheet G was composed--appear in any page of G(o). Had sheet G been set by consecutive pages, it is virtually certain that at least a few of the eleven distinctive F(i) types would reappear in the pages of G(o)--especially in G1 and 2^{v}, the earlier pages of the sheet. But instead we find that the four pages of G(o) contain a concentration of types (10) from E(i), plus ten types from seven pages distributed earlier as well as three types not seen previously in the play. And finally, we notice that no E(i) types appear in the first pages of G(i)--in 1^{v} and 2--(indeed they do not appear at all in G(i)), a highly improbable pattern had sheet G been set seriatim. We may therefore reasonably conclude but one thing: that Compositor J distributed E(i) and set G(o), and that he then distributed F(i) and composed G(i); that is, sheet G was composed not by consecutive pages but by formes--from one case, and almost certainly by a single compositor.

Sheet H

After he sent G(i) to press Compositor J then began

distributing material in order to restock his case in preparation for setting sheet H. Up to now no more than six pages have been distributed immediately before composition was commenced; and this occurred only once--just prior to setting sheet E. The more common procedure has been to distribute four pages before composing a given forme; and indeed in at least one instance--in D(i)--distribution and composition proceeded in two-page increments. Before composing sheet H, however, Compositor J again distributed no less than six pages--the four pages of G(o) plus F1 and 2^v.[13] The graph shows that the four pages of H(o) contain types last seen in all four pages of G(o) and in two of the four pages of F(o)--F1 and 2^v.

Compositor J distributed six pages, probably the two pages of F(o) first and then the four pages of G(o); and he then started composing H(o). That H(o) is the precedent forme is strongly suggested by headline evidence. It can be seen in the graph that the first skeleton available for subsequent use in sheet H is Skeleton I*, last used in now wrought-off (and partly distributed) F(o); and this skeleton is next employed in H(o). Precedent H(o) was likely composed in the normal order: 1, 2^v, 3, and 4^v. At least there is one bit of type-shortage evidence which indicates that $H4^v$ was the last page of the forme to be composed. H1, 2^v and 3 contain only the regular size upper case "T's," but $H4^v$ shows one smaller upper case "T."

H(o) pages contain, in addition to the fourteen distinctive types which last appeared in freshly distributed F1, 2^V and G(o), four distinctive types from four scattered, previously distributed pages as well as two types (see lines 13 and 20 in the graph) not hitherto seen in the play. Here again this is exactly what we would expect to find in a play set from one case. Compositor J finished setting the four pages of H(o), locked up the forme with Skeleton I*, supplied by F(o), and prepared it for machining; and there is nothing to prevent us from assuming, as it is reasonable to do, that G(i) had finished its run at the press by this time.

Compositor J then started setting H(i)--and perhaps without any further distribution. It is possible, of course, that he may have distributed F3 at this time. But since the single distinctive F3 type does not reappear before H4 (see line 44 in the graph), he may not have distributed F3 until just before he composed H4; and this latter course of action seems more probable, for we would normally expect the F3 type to reappear before H4, line 30 (the last page in the forme) if it had in fact been distributed before the first page of the forme was composed. H(i) pages contain types last seen in F1, 2^V, and 3, as well as in three of the four G(o) pages--1, 2^V, and 3. And it has already been noticed that both G(o) plus F1 and 2^V were distributed before precedent H(o) was set. In addition

to the thirteen distinctive types in H(i) which were last seen in F1, 2^v, and 3 and G(o), H(i) not surprisingly contains seven distinctive types from various previously distributed pages plus four types (see lines 23-25 and 38) which are noticed here for the first time in the play. Three of these "new" types appear in $H1^v$, and although this is a rather small concentration, it is not impossible that J distributed some small amount of additional material at this time. It will be remembered that sheet G contained about eighteen more lines of roman type than was provided by E(i) and F(i), the eight pages distributed before sheet G was composed. And we should notice that in addition sheet H contains about twenty-three more lines of type than the amount made available by distributed G(o) and F1, 2^v, and 3. Sheets G and H, then, needed about forty-one more lines of type (over a page) than was furnished by the pages of Titus Andronicus which were distributed before these sheets were set.

Although it is possible that J distributed some additional material before he began setting H(i), it is, to be sure, unlikely. Why, for instance, would he distribute some additional material now--before setting $H1^v$, the first page in non-precedent H(i)--when he had only recently distributed six pages--G(o) and F1, 2^v--and then set only four pages--H(o)? And why, moreover, would he distribute some additional material rather than $F4^v$, the only page of

F(o) yet undistributed? To these questions no reasonable answers present themselves; and we may therefore assume that J did not in fact distribute some other, non-Titus material before setting H(i). One thing, however, is virtually certain: that $F4^V$ was not distributed along with the other three F(o) pages. Indeed the possibility that $F4^V$ types were distributed first and then covered up in the sort boxes by types from F1, 2^V, and 3, and the four pages of G(o) is to the highest degree improbable. In sheet I (see graph VIII, before page 120) we notice that all five distinctive types contained in $F4^V$ which appear again in the play are next seen in sheet I. Moreover four of the five types (see lines 3, 9, 16, and 17) reappear in I1 and $I2^V$--the first two pages of precedent I(o). But we shall see presently that H3 plus the four pages of G(i) were distributed before I1 was set. Therefore if $F4^V$ types had in fact been distributed first (and then covered over in the sort boxes) before sheet H was composed, they would again have been covered up with types from H3 and G(i). And we would certainly not expect to find them in the first two pages of sheet I.

At any rate J composed H(i), probably in the normal order--1^V, 2, 3^V, and 4. There is at least some indication that $H1^V$ was the first page set, for it is the only page of the inner forme which contains an italic "us" ligature

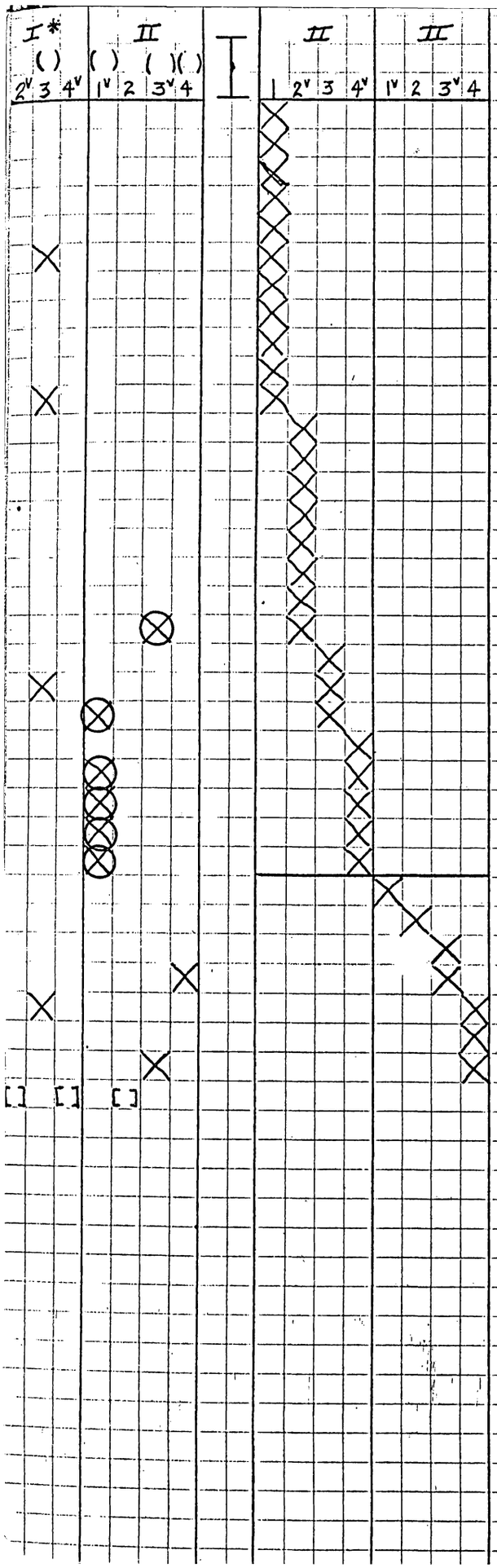
(1). H(i) was then locked up with Skeleton II, provided by G(i) and sent to press.

It is difficult to imagine why Compositor J would take time to distribute six pages before he set the first forme of sheet H. We might suppose that the press had to undergo some major repair; or perhaps it was temporarily employed on a small job, that the pressmen began machining, say fifty copies of a broadside when they finished printing G(o). And perhaps Compositor J, after locking up G(i), saw that he would now have some additional time before the press would be able to begin printing precedent H(o), and he therefore used that time to distribute a few extra pages so that very little further distribution would be necessary when he began setting non-precedent H(i). What did in fact happen--why, in particular, he distributed at least six pages before setting any page of sheet H--we cannot know with absolute certainty. But the suggestions offered above seem in no way unreasonable.

Abundant type-distribution evidence indicates that sheet H was composed from one case; and spelling evidence also suggests that this sheet, like all its predecessors, was set by a single compositor. Sheet H, because it was composed after an initial distribution of at least six pages, provides less type-recurrence evidence than that furnished by earlier sheets--less, that is, which can determine the method used to compose this sheet. But there

		D				E				F	I*				G	II				II ( )				H	
		1v	2	3v	4		1	2v	3	4v	1	2v	3	4v		1	2v	3	4v	1v	2	3v	4		1
1.	e22																						X		
2.	o24																						X		
3.	f23													X											
4.	I21																					X			
5.	fi 22											X													
6.	i21																								
7.	k22																			X					
8.	d24																					X			
9.	g23													X											
10.	f27																						X		
11.	y23																				X				
12.	u22																				X				
13.	a22																			X					
14.	ff23																				X				
15.	n21																				X				
16.	e21													X											
17.	d23													X											
18.	t21																						X		
19.	T28																								
20.	o21								X																
21.	f26																								
22.	T26																								
23.	m34			X																					
24.	V21																								
25.	h35																								
26.	V22																								
27.	p28																								
28.	A21																					X			
29.	t22																	X							
30.	g21											X													
31.	f25																								
32.	T32																								
33.	d26													X											
34.	p26																								

[ ]



SHEET I

J distributed F4v, H3, and G(i) & set I1 and (part of) I2v
J " H1v and H3v & " I2v (part), I3, and I4v
J " H4 & " I1v, 2, 3v, and 4

J distributed 9 pages & set 8 pages
Standing: H1, 2v, 4v, H2, and sheet I — 12 pages

GRAPH VII

is enough evidence shown in the graph to make it reasonably certain that sheet H was in fact set by formes. No fewer than seventeen types from sheet G--all of them in G(o)--reappear in sheet H; and four of these types (see lines 1, 3, 21, and 22 in the graph) are next seen in the first two consecutive pages of sheet H--1 and 1^{v}, recurrence patterns which are not ordinarily presented when seriatim setting is employed.

If sheet H had been composed by consecutive pages, no forme would have been completed until the first seven pages had been set; and the inner forme of sheet H (completed first) would, we must suppose, then be sent to press first; that is, H(i) would be precedent. But the use of Skeleton I* in H(o) strongly suggests that H(o) was in fact precedent--and that there was no sudden shift to seriatim setting for this sheet. [14] Hence we may conclude that sheet H was almost certainly set not by consecutive pages but by formes, from a single case and by one compositor.

Sheet I

After Compositor J readied non-precedent H(i) for machining, he started working on sheet I. And before setting the first page of sheet I, he evidently distributed no fewer than five and very probably six pages. Il contains at least one type from: $F4^{v}$, $G1^{v}$, 3^{v}, 4, and H3; and types

from none of these five pages reappear before I1. Moreover types from G2, the remaining G(i) page, begin appearing early in $I2^V$. After distributing G(i), $F4^V$, and H3 (and the exact order of distribution is not made entirely clear by recurrence patterns), J began composing I(o). Type-shortage evidence does not indicate the order in which I(o) was set, but we may assume that the normal order was employed: 1, 2^V, 3, and 4^V. I1 was composed and work then began on $I2^V$. But J did not set all of $I2^V$ without interruption; because before he reached line 35 (the last line of text in the page), he evidently stopped and distributed $H3^V$--from non-precedent H(i) which we would certainly not expect to have finished at press by now. But it is perfectly clear that H(i) had in fact finished machining before the whole of the second page of sheet I was composed. Nor can this single $H3^V$ type (see line 19 in the graph) which next appears in $I2^V$, line 35, be reasonably viewed as the result of some accident which displaced it from H(i). For we notice that types from two other H(i) pages also reappear in sheet I: $H1^V$ furnishes one type next seen in I3 (see line 22) and four additional types which appear again in $I4^V$ (see lines 24-27); and one H4 type is next seen in $I3^V$ (see line 31). Non-precedent H(i) was therefore finished at press and unlocked; and two (or perhaps three) [15] of its pages were distributed before J resumed his job of composition--finishing $I2^V$ and then setting 3 and 4^V.

I(o) was locked up with Skeleton II, supplied by now wrought-off H(i), and sent to press.

Before he began setting I(i), J may have distributed H4; or he may not have distributed this page until somewhat later, say just before he composed $I3^{v}$. But of one thing we can be certain: no other pages were distributed before he began setting I(i), because the four pages of this forme contain no types from pages which have not already been distributed (save H4). Compositor J set I(i), probably in the normal order--1^{v}, 2, 3^{v}, and 4. At least 1^{v} was likely the first inner forme page set, for it is the only page to contain an italic "us" ligature--one of them. After I(i) was set it was locked up with Skeleton II, which was last used in precedent I(o). This skeleton of course would not be available until I(o) was finished at press, but we can probably assume that I(o) had finished machining by the time J set and imposed I(i).

Why Compositor J took time to distribute at least five and probably six pages of types before setting the first page of sheet I is indeed difficult to explain. Perhaps he had got slightly ahead of the press when he finished composing non-precedent H(i), for we remember that he probably distributed only one page (F3) before he set H(i).[16] Perhaps he thought that he now had time to distribute some extra types before the press would be ready for I(o). But

he must not have had as much time for distribution as he thought, because it is clear that the press had finished machining H(i) before he finished setting the second page of precedent I(o). Nor is it any less difficult to explain why J stopped setting I2^{v} and distributed part of now wrought-off H(i). Surely his case was sufficiently stocked to allow him to set the rest of I(o), for he had only recently distributed no less than six pages: F4^{v}, H3, and the four pages of G(i). Perhaps once again the press was being used for some other, temporary job and he knew that it would be some time before it would be available for printing I(o). In short, the irregularities in distribution-composition and the speed of presswork in sheet I cannot be explained with absolute certainty. But this much is clear: everything points to some kind of hiatus in composition--possibly a delay of considerable length--shortly before the setting of I2^{v} had been completed; moreover the major irregularity in the type-recurrence patterns found in the play occurs at this point, for it is the only instance where we find types in consecutive formes. And indeed even if sheet I had been set seriatim (which it was not, as the following discussion will show) types would still recur in consecutive formes.

Spelling evidence suggests that a single compositor set the whole of sheet I; and abundant type-distribution

evidence (the kind discussed in detail in sheets C and D) indicates that sheet I was evidently composed from one case. That sheet I was set by formes, as shown in the graph, is also at least reasonably plain. Because of the irregular distribution and composition in sheet I; and because, moreover, the composition of sheet I was interrupted before all of $I2^{v}$ was set in order to distribute part of H(i), there is far less conclusive evidence (particularly type-recurrence evidence) of setting by formes in sheet I than we find in any other sheet in the play (except, of course, in sheet A). Indeed the kind of type-recurrence evidence which has allowed us to be virtually certain that sheets B through H were set by formes is not provided by this sheet. We have noticed heretofore that a considerable number of distinctive types in the sheet being examined also appeared in the preceding sheet; that is, we found types recurring in consecutive sheets (but not in consecutive formes) where, in addition, there was no evidence of any delay which would explain such recurrence. But we notice here that only one page of sheet H--H3--was certainly distributed before the composition of sheet I began. Two distinctive types last seen in H3 next appear in I1 (see lines 6 and 11 in the graph); and of the two remaining H3 distinctive types, one is found in I3 (see line 21) and the other is seen in I4 (see line 32) in non-precedent I(i).

On the other hand, sheet I shows eight distinctive types (see lines 19, 22, 24-27, 31, and 34) from the immediately preceding forme--H(i)--and apparently these eight types next appear in sheet I because some interruption occurred; because, that is, Compositor J for some reason stopped setting precedent I(o) fairly early, probably after he had composed about 28 lines of text on $I2^v$ (see plates of $H3^v$ and $I2^v$ on the following pages) in order to distribute part of now wrought-off H(i). The recurrence of these H(i) types in sheet I, then, cannot be adduced as evidence that sheet I was set by formes.

There is in fact but one kind of evidence which indicates that sheet I was set by formes. It is certain that five pages--$F4^v$, H3, and three G(i) pages--1^v, 3^v, and 4--were distributed before the first page of sheet I was set, for types from all of these pages reappear in I1 for the first time. If sheet I had in fact been composed by consecutive pages, we could reasonably expect to find a concentration of types from these pages in I1, 1^v, 2, and 2^v--up to the point where composition was stopped for distribution of H(i) pages. But we do not. Indeed $I1^v$ contains a single distinctive type (see line 28) which last appeared in $G3^v$, and no distinctive types from any of the other four pages just distributed. Moreover I2 shows one distinctive type (see line 29) from previously distributed $G4^v$ but <u>no</u> types from any of the five pages distributed just

The most Lamentable Tragedie

Of [illegible]ded men, bent to the spoile,
They hither march amaine, vnder conduct
Of *Lucius*, sonne to old *Andronicus*,
VVho threats in course of this reuenge, to doe
As much as euer *Coriolanus* did.
King. Is warlike *Lucius* Generall of the *Gothes*,
These tidings nip me, and I hang the head
As flowers with frost, or grasse beat downe with stormes.
I now begins our sorrowes to approch,
Tis he the common people loue so much,
My selfe hath often heard them say,
VVhen I haue walked like a priuate man,
That *Lucius* banishment was wrongfullie,
And they haue wisht that *Lucius* were their Emperour.
Tamora. why should you feare, is not your Citie strong?
King. I but the Citizens fauour *Lucius*,
And will reuolt from me to succour him.
Tamora. *King* Be thy thoughts imperious like thy name,
Is the sunne dimde, that Gnats doe flie in it,
The Eagle suffers little birds to sing,
And is not carefull what they meane thereby,
Knowing that with the shadow of his winges,
He can at pleasure stint their melodie.
Euen so maiest thou the giddie men of Rome,
Then cheare thy spirit for know thou Emperour,
I will inchaunt the old *Andronicus*,
With words more sweete and yet more dangerous
Then baites to fish, or honnie stalkes to sheepe,
When as the one is wounded with the bait,
The other rotted with delicious feede.
King. But he will not intreat his sonne for vs.
Tamora. If *Tamora* intreat him than he will,
For I can smooth and fill his aged eares,
VVith golden promises, that were his hart
Almost impregnable, his old yeares deafe,

Yet

H3^{v} in Titus Andronicus. The upper case "T" in line 2 (marked with a pointer) is next seen in I2^{v}, line 35 as the accompanying plate on the following page shows.

But I haue done a thousand dreadfull things,
As willingly as one would kill a flie,
And nothing griues me hartelie indeede,
But that I cannot doe ten thousand more.
Lucius. Bring downe the Diuell for he must not die,
So sweet a death as hanging presently.
Aron. If there be Diuels would I were a Diuel,
To liue and burne in euerlasting fire,
So I might haue your companie in hell,
But to torment you with my bitter tongue.
Luci. Sirs stop his mouth and let him speake no more.

Enter Emillius.

Goth. My Lord there is a messenger from Rome,
Desiers to be admitted to your presence.
Lucius. Let him come here.
VVelcome *Emillius*, what's the newes from Rome?
Emil. Lord *Lucius*, and you Princes of the *Gothes*,
The Romaine Emperour greets you all by me,
And for he vnderstands you are in Armes,
He craues a Parley at your fathers house,
VVilling you to demaund your hostages,
And they shall be immediatly deliuered.
Goth. VVhat saies our Generall.
Luci. *Emillius*, let the Emperour giue his pledges,
Vnto my Father and my Vnkle *Marcus*,
And we will come, march away.

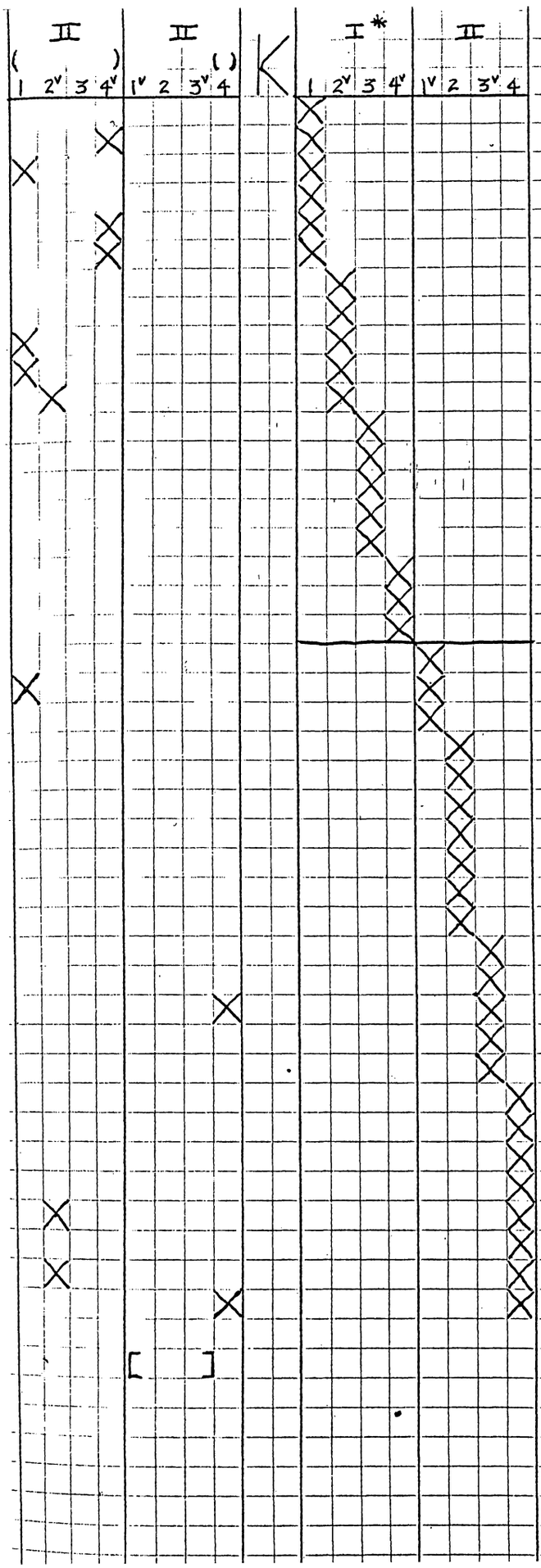
Enter Tamora and her two sonnes disguised.

Tamora. Thus in this strange and sad habilliament
I will encounter with *Andronicus*,
And say I am reuenge sent from belowe,
To ioyne with him and right his hainous wrongs,
Knocke.

I2^{v} in Titus Andronicus. Composition was probably stopped just before or after the centered stage direction. (First H(i) type to next appear in I(o) is the upper case "T" in "To" in the last line of text.)

		F				G								H	I*				II				I
		1v	2	3v	4	1	2v	3	4v	1	2v	3	4v	1v	2	3v	4	1	2v	3	4v	1v	2	3v	4
1.	p25																								X
2.	V21																								
3.	g23																								
4.	C21									X															
5.	m34																								
6.	p28																								
7.	h21										X														
8.	T21																							X	
9.	f23																								
10.	k22																								
11.	T28																								
12.	h23																			X					
13.	G21																						X		
14.	n25																						X		
15.	p29																						X		
16.	g22																						X		
* 17.	O22																								
18.	L22																							X	
19.	p24																							X	
20.	k23																				X				
21.	i21																								
22.	e24																	X							
23.	M21																	X							
24.	l23																		X						
25.	h25																		X						
# 26.	m21																								
27.	m22																				X				
28.	P21																				X				
29.	h29																	X							
30.	t23						X																		
31.	f22																								X
32.	d26																								
33.	C24																	X							
34.	O25	X																							
35.	p34														X										
36.	n23																						X		
37.	f24																						X		
¶ 38.	fi21																								
39.	ff23																								
40.	n21																				X				
41.	a22																								
42.	T32																								

* Prior to K4v, O22 last seen in E1
\# " " K2, m21 " " " D4
¶ " " K4, fi21 " " " D3v



SHEET K

J distributed H2, I1, 2v, 3, and 4v & set K1, 2v, 3, and 4v
J " H1, 2v, 4v, and I4 & " K1v, 2, 3v and 4

J distributed 9 pages & set 8 pages
Standing: I1v, 2, 3v and sheet K – 11 pages

GRAPH IX

before I1 was set. It is also interesting to notice that of the eighteen distinctive types in these five pages no fewer than fourteen are next seen in I1 and $I2^{v}$, whereas only one is found in $I1^{v}$ and none reappear in I2. And it is indeed difficult to imagine that such patterns would result if sheet I had been set by consecutive pages. This is admittedly less decisive evidence than that provided by earlier sheets, but it seems sufficient to allow us but one conclusion: that sheet I was also set by formes--and from a single case.

Sheet K

We have already noticed that precedent I(o) was stripped of its skeleton (II) which was then used to lock up non-precedent I(i). After sending I(i) to press, Compositor J next turned his attention to sheet K, the last sheet in Titus Andronicus. In order to restock his case, J distributed four pages: I1, 2^{v}, and 4^{v}--three of the pages in last wrought-off I(o)--and H2--the one remaining undistributed page in previously wrought-off H(i). The exact order in which these four pages were distributed was probably: H2, I1, 2^{v}, and 4^{v}. At any rate $I4^{v}$ appears to have been the last page distributed, for all three distinctive types contained in this page are next seen in K1. And that H2, I1, and 2^{v} were also distributed

just before K(o) was set is reasonably certain, because types from these four pages do not reappear in any page before K1 but are found scattered through various K(o) pages. K(o) was set, most likely in the normal order: 1, 2^v, 3, and 4^v. Type-shortage evidence indicates only that K1 was the first page composed, for this page alone contains an italic "us" ligature (1). K(o) was then locked up with Skeleton I*, supplied by already wrought-off H(o). And we are probably correct in assuming that K(o) was the precedent forme in the sheet. Skeleton I* would have been the first skeleton available for use in sheet K, Skeleton II having been used in I(i) which was being machined while K(o) was being set. Thus precedent K(o) was composed, locked up and delivered to the press which by this time had probably wrought off non-precedent I(i).

Compositor J then restocked his case to prepare for setting the last forme in the play. Initial appearances indicate that he distributed H1, 2^v, and 4^v, the three pages of sheet H still standing; and that in addition he may have distributed I4 from immediately wrought-off I(i) at this time. If I4 was in fact distributed before the first page of K(i) was set, it was probably distributed first, then followed by H1, 2^v, and 4^v. [17] Type-shortage evidence does not indicate the order in which K(i) was set, so we may reasonably assume that the normal

order--1^v, 2, 3^v, and 4--was followed. Why J distributed a single page--I4--from just wrought-off I(i) instead of I3, the only page still standing in previously wrought-off I(o), is not easily explained. Nor is it at all likely. Hence initial appearances may be misleading. It seems on the whole more probable that I3 was in fact distributed, along with the other three pages of I(o), just before the setting of K(o) began. There are but three distinctive types in this page and, especially if I3, 2^v, 1, and 4^v were distributed in this order, it would be in no way surprising if none of these three I3 types reappeared in the first two pages of K(i) to be set--nor, if I4 was then distributed too (as lines 32 and 42 in the graph show that it was) if they did not reappear in $K3^v$ or K4 either. It may be presumed that a single I(i) page was distributed before the setting of $K3^v$ simply to insure that no shortage of particular sorts would occur before the composition of the book was finished. Perhaps, too, Compositor J was aware that there was some delay in the machining of K(o), hence that he would have time to distribute the extra page without risk of making the pressmen wait for the delivery of completed K(i). In any event K(i) was composed, locked up with Skeleton II furnished by I(i), and delivered to the press.

Spelling evidence indicates that sheet K was set by a single compositor; moreover type-recurrence evidence

shows that this sheet, like its predecessors, was composed from one case. And type-recurrence evidence also strongly suggests that sheet K was in fact set by formes as the graph has already shown. Twelve distinctive types in sheet I reappear in sheet K. Moreover three types (see lines 2, 5, and 6 in the graph) contained in the last page of sheet I--in $I4^v$--are next seen in the first page of sheet K--in K1. Clearly this could not have happened unless some delay had taken place between sheets I and K, which is not substantiated by headline evidence; indeed headline evidence indicates that K(o) was the precedent forme because it employed the first set of headlines available for use (a, n, e, and q which make up Skeleton I*) in sheet K. And finally we notice that types regularly go from I(o) to K(o)--seven of the ten I(o) types reappear in K(o)--and the two I(i) types are next seen late in K(i). Type-recurrence patterns of this kind are not ordinarily presented when a sheet is set by consecutive pages. We may therefore conclude that sheet K was set by formes from one case. At the end of the play the following pages remain undistributed: $I1^v$, 2, and 3^v; and the eight pages of sheet K.

To sum up briefly, the whole of the first quarto of <u>Titus Andronicus</u> was evidently composed from one case; moreover the play was almost certainly set by a single compositor whose spelling habits will be detailed in the

next chapter. The three and one-half pages of sheet A, the first sheet of the play to be composed and printed, were very likely set by consecutive pages; the seventy-two pages in sheets B through K, however, were almost certainly set by formes from cast-off copy. Types appear anomalously in seven instances in the play: one can be explained as the result of some accident that displaced a single F3 type and thus allowed it to be used in composition before any other types from F3, or indeed from the forme--F(o)--were distributed; the remaining six anomalous types recurred in consecutive formes because of the delay which took place during the printing of sheet I. But nearly four hundred appearances of distinctive types (in conjunction with headlines and type shortages) provide a considerable body of detailed information about the printing of the first quarto of Titus Andronicus. In general the process of printing seems to have been a very smooth and orderly one, save for a delay during the printing of sheet I. The significance of compositor-presswork relationship in the play, however, is yet to be mentioned; and this matter will be dealt with in the concluding chapter of this study.

Compositor J--Spelling Evidence

The foregoing detailed discussion of the printing of Titus Andronicus presented sufficient type-distribution evidence to make it clear that (with the possible exception of sheet A, where such evidence is lacking) the play was composed from one case; thus no more than one compositor worked on the play at a given time. The question to be asked now is: did two (or more) compositors work alternately on the play? And the evidence presented in the following pages makes it reasonably certain that alternate setting by two or more compositors not practiced; that instead, the entire play was set by the hypothetical Compositor J.

The chart on the following two pages presents the spelling patterns of six simple words: (1) do (spelled variously doe, do, and doo); (2) go (spelled goe or go); (3) here (spelled heere in one instance); (4) heart (spelled hart throughout Titus); (5) son(s)--and the variant spelling, sonne(s); and (6) Roman(s) or Romane--along with the variant Romaine(s). The pages of Titus are arranged here by formes, in the order in which they appear to have been printed. Thus A3 contains two sonne(s) and one Romaine(s); B2^{v} shows one doe, two doo spellings, one here, two hart spellings, one sonne(s) and one Romaine(s).

	doe	do	doo	goe	go	here	heere	hart	heart	sonne (s)	son(s)	Romane	Romaine (s)
A 3										2			1
4v										3			1
3v										2			2
4	1			1						4			1
B 1			1							8			2
2v	1		2			1		2		1			1
3	3							1				1	
4v	1		1			1				6			
1v						7				3		1	
2								1		2			
3v			1	1		2				4		2	
4				2		1		1		3		1	
C 1			1			2				6		1	
2v			3			1		1				1	
3								1					
4v			1							2		1	
1v			1			1				2			
2								2		2			
3v			1	1		1							
4			2										
D 1						1				2		1	
2v													
3	1					1							
4v						1		4					
1v													
2			1	1		1		1		2			
3v								2		1			
4	1			1		1		1		3	1		
E 1	1					3				1			
2v	2							2					
3	1			1				1		4			
4v			2			2				3			
1v	2					1				1			
2	2			2	1					2			
3v	1									2			
4	1					1		2					
F 1v				4				1		2			
2	3			1		1		1		2			
3v	3									1			
4				2						1			
1	3									1			
2v						1		1		1			
3	2			1			1	1		2			
4v	1					1		1					1

	doe	de	doo	goe	go	here	heere	hart	heart	sonne(s)	son(s)	Romain(s) Roimane	Romaine(s)
G 1	2			1						1			1
2v	1	1		1		2				1			
3	2							1		1			
4v	1			3									
1v	1			2				1		2		1	
2	1			1		2						1	
3v				1				1		1			
4				1									
H 1						3							
2v						1		1		2			
3				2		1				1			
4v	1					1							
1v				1									
2	1			1						1			
3v	2							1		2			
4	2			2				1					
H 1	1	2	1										
2v	1							1		1			1
3	1					1							
4v	4			1		1		1		2			
1v								1		2			
2	1							1		1			1
3v	2									1			
4	3			2						2			
K 1	2			1						1	1		
2v	1			1				1					
3	1							1		1	1	1	
4v	2							1				1	
1v				1									
2								1					
3v	1												1
4	1			2						1		2	
	65	3	18	42	1	44	1	41	0	105	3	15	15

The spelling evidence provided by the chart suggests that a second compositor (other than Compositor J, that is) *might* have set B(i) and C(o). In the three and one-half pages of sheet A, *Romaine(s)* is found five times (A3, 4^V, and 4 contain one each; $A3^V$ shows two). Moreover the first two pages of B(o)--B1 and 2^V--contain *Romaine(s)* but none of the variant form. B3 then shows the first *Roman(s)-Romane* variant, and this spelling is next seen in $B1^V$, 3^V, and 4; and in C1, 2^V, and 4^V. And not one of these seven pages contains a *Romaine(s)* spelling. It is also interesting to note that the eight pages of B(i) and C(o) contain only *doo* spellings, whereas *doe* is used in A4, and in three pages of B(o)--$B2^V$, 3, and 4^V. At first glance it would seem to appear then, on the basis of this evidence alone, that a second compositor *could* have set B(i) and C(o), and perhaps C(i) as well since it too contains only *doo* spellings.

But this is not all the evidence; indeed the *Roman(s)-Romaine* and *doo* correspondence is only a small part--and the only part, it should be stressed, which in any way indicates that a second compositor worked on the play. And even this bit of evidence is far from conclusive when we notice (1) that *doo* spellings are also found in pages which contain the variant *Romaine(s)*--in B1 and 2^V; (2) that no fewer than five pages show both *doe* and *Roman(s)-Romane*: $G1^V$ and 2, K3, 4^V, and 4; and (3) that both *doe* and *doo* occur on the same page in two instances--$B2^V$ and I1. [1]

It will be noticed also that do occurs three times in the play: once in $G2^v$ and twice in I1. The $G2^v$ occurrence is found in a long line of verse which uses a turnunder:

> Demet. VVhy do the Emperours trumpets flourish
> Chi. Belike for ioy the Emperour hath a sonne. (thus.

It would appear that in this instance Compositor J may have used the shorter spelling, do, because he thought, after reading over the line and before he began composing, that he might be able to get the last word of the speech--"thus"--into the line; but in fact he could not so he was forced to employ a turnunder. [2] Neither of the two remaining do spellings (on I1) is found in a long line of verse or prose, and we cannot know certainly why the shorter spellings were used. They may reflect copy spellings, or they may be the result of justification. In any event there is no evidence that I1 was composed by someone other than Compositor J.

The variant spellings of the remaining four words shown in the chart suggest even more strongly that a single compositor set the entire play. Goe is seen 42 times in the play; go appears only once--in E2 in a long line of verse (Demet. So now go tell and if thy tongue can speake,) which comes almost to the right-hand margin of the type page; in fact it appears that one more letter would extend the line out to the margin. It is not at all

unreasonable to presume, then, that Compositor J, when he read over the line and before he began setting it in his composing stick, realized that he _might_ not be able to get all of the line of copy into one line of type; and thus he decided to use the shorter spelling, _go_.

Here appears 44 times and the variant _heere_ appears but once in the play--in F3. And this single appearance can perhaps be explained as an anticipation. The word is found in the line, "Thy warlike hand, thy mangled Daughter heere." And it is interesting to notice that the next line contains the word "deere" ("Thy banisht sonne with this deere fight,"). At any rate it seems entirely possible that Compositor J read over the two lines and that "deere" (perhaps a copy spelling) influenced his spelling of "heere."

That a single compositor set the entire play is also indicated when we notice that _Titus_ contains 41 _hart_ spellings but no _heart_ variants. And _sonne(s)_ is seen no fewer than 105 times whereas the shorter _son(s)_ appears but thrice: in D4, line 21; K1, line 25; and K3, line 6. In D4 the shorter spelling is used in a long line of verse which extends to the right-hand margin of the type page; in K1 the same is true, and in this instance _sons_ is the very last word in the line; in K3 _sons_ is once again found in a long line of verse which ends "sons of Rome" and which extends to the margin. And since it is difficult to imagine how "of" or "Rome" could be shortened, J would, it

seems, have been forced to use the shorter sons in order to avoid employing a turnover. Therefore it is highly probable that all three sons spellings were used by Compositor J in long lines where the preferred sonne(s) would have required him to use turnovers. In short, the spelling evidence presented by the chart suggests that one compositor set the play, a compositor who by habit used goe, here, hart, and sonne(s); who showed some preference for doe (which appears 65 times), but who also used doo occasionally (18 times) and do very infrequently (3 times).

There is additional spelling evidence which supports the conclusion that one compositor set the whole of the first quarto of Titus Andronicus. Queene (always capitalized) occurs 23 times in the play; Queen does not appear. This Queene spelling is seen in seven of the ten sheets of the play; and of particular interest, Queene is found in B(i)--on $B1^{v}$ and 4--and in C(o)--on C1 and 3--the two formes, we remember, which showed some slight indication of having been set by a second compositor. In addition blood occurs 27 times, whereas bloud is found only 6 times; nor does bloud appear in either B(i) or C(o). Warre(s) was apparently preferred to war(s) since the former appears 7 times and the later only once: in B2, line 7 wars is the very last word in a long line of verse which extends to the right-hand margin of the page, and where, we may reasonably assume, Compositor J used this shorter spelling in order to avoid

having to use a turnover.[3] Final -es, moreover, seems to have been preferred to -ess in, for example, "gentlenes," "witnes," "busines," and the like. This -es form appears no fewer than 44 times; but the -ess variant occurs only three times ("lawlesse" on B4, "Pittilesse" on D3^{v}, and "timelesse" on E1^{v}), and these spellings may well be the result of justification. In addition a final -ie in words such as "daie," "happilie," "bodie," "fortie," and the like was apparently preferred to the -y ending. The -ie ending is seen 294 times; -y occurs 79 times. A final -ll in words like "mutuall," "royall," and "diuell" seems also to have been preferred to a single final -l; 207 -ll endings were used but only 20 -l endings occur. These spelling preferences noted above--Queene, blood, warre(s), and the -es, -ie, and -ll endings (charted in Appendix III)--when viewed in conjunction with the preferred spellings set forth in the chart--doe, goe, here, hart, and sonne(s)--strongly suggest that a single compositor set the play.

Spellings are not, however, the only evidence which can enable us to determine how many compositors set a play. Also useful is the testimony provided by the manner in which speech prefixes are handled; and in Titus they are dealt with in a way which suggests that no more than one compositor set the play. It is remarkable that fully spelled-out speech prefixes are used throughout the play. There are, to be sure, a good many exceptions, but abbreviated prefixes

are almost invariably seen in long lines and hence seem almost always to have been shortened only when space requirements demanded abbreviation.[4] One further point: when characters' names are used in the text proper, they are regularly italicized. In very few instances, in fact, are they not: (1) in G3^{v}, line 29, "Aron" is set in roman type; (2) in G3 "Nurse" and in G4 "the Nurse" are in roman type; (3) thrice in both B1^{v} and B3^{v} "Gothes" is romanized, but the word is here used in conjunction with "Tamora Queene of Gothes."

In summary, it is to the highest degree improbable that two (or more) compositors would, simply by chance, consistently demonstrate the same spelling preference for no fewer than eight commonly used words in the play--doe, goe, here, hart, sonne(s), Queene, blood, and warre(s); that both would, in addition, prefer -es, -ie, and -ll endings instead of their common variants; and finally, that both would habitually italicize characters' names in the text.

It is not pretended that the "accidents" of the quarto have been exhaustively analyzed; much more could certainly be done with capitalization, italicization, catchword convention, speech prefix irregularities, perhaps punctuation, and certainly spelling. Yet a very considerable body of evidence points to but one conclusion: that the first quarto of Titus Andronicus was set throughout by a single compositor--the hypothetical Compositor J.

Conclusion

It has not been the purpose of this study to produce a definitive text of Titus Andronicus, but rather to establish certain facts which must certainly be taken into account by future editors of the play. Two matters in particular should interest them: the manner in which the play was printed--by formes--and the reliability of the single compositor who was evidently responsible for setting the whole play.

With regard to the quality of Compositor J's work, we at present know next to nothing. But there is some reason to think that he was not a very careful workman, for the first quarto of Titus presents many problems to editors. It is manifestly more corrupt than many other, indeed perhaps most other, "good" quartos; and it is likely that at least some of its misrepresentations of what Shakespeare intended are due rather to Compositor J than to the copy from which the play was set. We are not yet in a position to be certain about this, but the need to know more is clear. We know already, indeed, that in the first quarto of Titus we are dealing with only one compositor, not two or more. In addition, a beginning has at least been made here toward analyzing some of his characteristics, and further detailed investigation may not only allow us to identify other work done by him but, much more important,

give us a means of determining how reliably he can be supposed to have followed the copy which he was required to set.

Since the first quarto of Titus Andronicus is preserved in a single copy, discovered by chance in Sweden in 1904, we are unable to determine, by the collation of multiple copies, what textual changes were made in the course of printing (as we can, for instance, in the first quarto of Richard II). [1] For example Greg has pointed out that "there are signs of alteration in the text on sig. I2 [see plate of I2 on the following page] . Nine lines appear to have been removed in proof and four speakers' names centered and leaded in compensation." [2] But he then goes on to say that "the error may, of course, have had nothing to do with the copy." [3] And since we have but one copy of the quarto, we can, unfortunately, be less than certain about what happened at this point in the composition of the play; nor, in addition, are we able to see particular instances of textual corruption that was unquestionably the result of setting by formes. If we were only fortunate enough to be able to study several copies of the play, we might well find that the line which appears as I.i.398 (Globe) in the First Folio and in all modern editions was omitted from the first quarto as a consequence of setting by formes--a point of no small consequence since the presence of this line in the Folio is,

when for his hand he had his two sonnes heads,
Beheld his teares, and laught so hartelie,
That both mine eyes were rainie like to his:
And when I tolde the Empresse of this sport,
Shee sounded almost at my pleasing tale,
And for my tidings gaue me twentie kisses.

Goth.

What canst thou say all this and neuer blush?

Aron.

I like a blacke Dog, as the saying is.

Lucius.

Art thou not sorrie for these hainous deeds?

Aron.

I that I had not done a thousand more,
Euen now I curse the day and yet I thinke
Fewe come within the compasse of my curse,
wherein I did not some notorious ill.
As kill a man, or els deuise his death,
Rauish a maide, or plot the waie to doe it,
Accuse some innocent, and forswear my selfe,
Set deadly enmitie betweene two friends,
Make poore mens cattle breake their necks,
Set fire on barnes and hay stalks in the night,
And bid the owners quench them with their teares:
Oft haue I digd vp dead men from their graues,
And set them vpright at their deare friends dore,
Euen when their sorrowes almost was forgot,
And on their skinnes as on the barke of trees,
Haue with my knife carued in Romaine letters
Let not your sorrow die though I am dead.

I2 in Titus Andronicus. That part of the text to which Greg refers is marked with brackets.

as Greg has said, the only "evidence that F had access to a manuscript authority." [4]

It is possible, of course, that the line in question--"Yes, and will nobly him remunerate"--was not contained in the copy from which the quarto was set, presumably Shakespeare's own "foul papers." But it is also possible that the copy did contain the line and that Compositor J omitted in from $C1^v$ either by accident or intention. (See plate of $C1^v$ on the following page.) At first glance it would seem that the omission was merely an oversight, for we notice a full line of "white space" just above the elaborate three-line stage direction--the position of the line in the Folio--as well as another open line below the stage direction.

But it is just possible that the omission was not accidental but deliberate. Because sheet C was set by formes, C(o) having been composed and printed first, rather strict limits were established for the four pages of C(i), the non-precedent forme of the sheet. It is also worth noticing that C2, 3^v, and 4, the remaining pages of C(i), contain a full 35 lines of text per page, and in addition both $C3^v$ and C4 show two turnovers. But even though these three pages are full of text, we would still expect Compositor J to set the line of text on $C1^v$--in the line of white space just above the three-line stage direction; certainly this would seem the logical thing to do. But it is a curious fact that all of the stage directions in <u>Titus</u> which contain three or

The most Lamentable Tragedie
That brought her for this high good turne so faire.

Enter the Emperour, Tamora and her two sonnes, with the Moore at one doore. *Enter at the other doore Bassianus and Lauinia, with others.*

Saturnine. So *Bassianus*, you haue plaid your prize,
God giue you ioy sir of your gallant Bride.
Bassianus. And you of yours my Lord, I say no more,
Nor wish no lesse, and so I take my leaue.
Saturnine. Traitor, if Rome haue law, or we haue power,
Thou and thy faction shall repent this Rape.
Bassianus. Rape call you it my Lord to ceaze my owne,
My true betrothed loue, and now my wife:
But let the lawes of Rome determine all,
Meane while am I possest of that is mine.
Saturnine. 'Tis good sir, you are verie short with vs.
But if we liue, weele be as sharpe with you.
Bassianus. My Lord what I haue done as best I may,
Answere I must, and shall doo with my life,
Onely thus much I giue your Grace to know,
By all the duties that I owe to Rome,
This Noble Gentleman Lord *Titus* here,
Is in opinion and in honour wrongd,
That in the rescue of *Lauinia*,
With his owne hand did slay his youngest sonne,
In zeale to you, and highly moude to wrath,
To be controwld in that he frankelie gaue,
Receaue him then to fauour *Saturnine*,
That hath expreft himselfe in all his deeds,
A father and a friend to thee and Rome.
Titus. Prince *Bassianus* leaue to pleade my deeds,
'Tis thou, and those, that haue dishonoured me,
Rome and the righteous heauens be my iudge,
How I haue loude and honoured *Saturnine*.

Tamora.

Cl^{v} in Titus Andronicus Q1. The line supplied by the Folio--"Yes, and will nobly him remunerate."--occurs just before the three-line stage direction; the first quarto shows a line of "white space" in that position (marked with a pointer).

more lines (nine) are set off with a full line of white space both above and below the stage direction. Perhaps it would seem that could have included the line and still have set off his stage direction with white space merely by setting an extra line of type at the bottom of the page. And yet he regularly set no more than thirty-five lines per page in the play. Only in $G2^{v}$ and in the crowded pages of the final sheet, indeed, did he set a thirty-sixth line of type.

There is no way to prove, of course, that Compositor J deliberately omitted a line of text on $C1^{v}$; nor do we know absolutely that the line was even accidentally omitted, since we cannot be certain that it was contained in the copy which Compositor J used to set the quarto. But as Greg points out, it is clear that the line has manuscript authority; and it is also clear that Compositor J habitually set a line of white space both above and below stage directions of three or more lines; and that, in addition, he was reluctant to set an extra (thirty-sixth) line on a page. And perhaps one further matter should be mentioned. The line in question (enclosed below in brackets) occurs in the Folio version of Titus' reply to Marcus' question:

> Marcus. My Lord to step out of these dririe dumps,
> How comes it that the subtile Queene of Gothes,
> Is of a sodaine thus aduanc'd in Rome.
> Titus. I know not Marcus, but I know it is.
> (VVhether by deuise or no, the heauens can tell.)

Is shee not then beholding to the man,
That brought herfor this high good turne so faire.
[Yes, and will nobly him rumunerate.]

It will at once be plain that in the first quarto Titus' speech is not without sense even though it lacks the line that later got into the Folio text.[5] It seems not at all impossible, then, that Compositor J may have deliberately omitted a line of text in the substantive first quarto of Titus Andronicus--just as Simmes' Compositor A did, and on more than one occasion, when setting non-precedent formes of the first quarto of Richard II.[6]

This matter is, however, but an accidental byproduct of the present study, of which the primary purpose is to discover how the book was printed and having done so, to inquire why this particular method of printing--by formes--was adopted. It was mentioned earlier (see pages 38-41) that bibliographers have heretofore thought that setting by formes rather than seriatim was usually employed for one or both of two possible reasons: first, because the supply of types was not sufficiently large to allow seriatim setting without running critically short of particular sorts; or second, because it was necessary to increase the speed of composition by employing a second compositor; that is, because there was a need for two compositors to set material simultaneously in order to match the speed of presswork.

It appears, however, that the supply of types in Danter's shop, and more particularly in Compositor J's case, was sufficiently large to allow him to set the play seriatim. There are nine full sheets in the play (B through K). When J finished setting four of these sheets--E, F, G, and I--twelve pages of type were standing; when he completed the composition of sheet H, no fewer than thirteen pages of the text were in type; and when he finished setting sheet K, the last sheet in the play, eleven pages were standing.[7] Compositor J, then, would have had enough types available to set Titus by consecutive pages rather than by formes. To illustrate, J could have set, say sheet F, seriatim: he composes the first seven consecutive pages of the sheet, and when he finishes setting the last of these, F4, he locks up F(i) and sends it to press. He resumes composition and sets $F4^{v}$, the last page of sheet F, and then begins setting sheet G--seriatim--1, 1^{v}, and 2. Since he will normally be able to compose about four pages in the time required by the press to machine a forme, F(i) will likely be wrought off about the time he finishes setting G2; J then locks up F(o) and sends it to press. At this time eleven pages of type would be standing: eight pages of sheet F, plus the first three consecutive pages of sheet G--1, 1^{v}, and 2. Since we have already noticed that on at least one occasion J had no fewer than thirteen pages of type standing, he could, at the very

least, go on and set $G2^v$ and G3 before he would have to distribute now wrought-off F(i) in order to restock his case.[8] Types from F(i), then, would next appear no earlier than $G3^v$--in the sixth page of the second consecutive sheet. And although we would not ordinarily expect to find types in <u>any</u> page of the second consecutive sheet (as we do not, save upper case italic "B's," in the first quarto of <u>Much Ado</u>), it is clear that J <u>could</u> have set the play seriatim with the supply of types which he evidently had at his disposal.

Since, moreover, we have heretofore thought that setting by formes may often have been undertaken when it was necessary to increase the speed of composition by employing a second compositor, we might have expected to find two compositors working simultaneously on the first quarto of <u>Titus Andronicus</u>. But in fact we do not. On the contrary, as earlier pages of this study have been at pains to show, there is abundant evidence that every sheet in the play was set from a single type case, and thus no more than one compositor could have been at work at a given time. How a single compositor--the hypothetical Compositor J--managed to set the entire play and, in the main, keep up with the speed of presswork, can, however, be suggested.

A single Elizabethan compositor normally set something approximating 11,000 ens a day--probably <u>about</u> 10,500.[9]

A page of Titus ordinarily contains 1,440 ens (40 ens per line, 36 lines per page); a sheet, then, contains 11,520 ens. So a single compositor could, it appears, set almost one sheet a day. And since it is clear that this average rate of composition--about 10,500 ens, or slightly less than one full sheet per day--was sufficient to match the speed of presswork during the printing of the book (only one delay having occurred), we should now ask: how large was the edition of the first quarto of Titus Andronicus? And the answer is that it was probably about 1,250 copies. We now think that the size of the First Folio edition was likely about 1,200 copies; in addition it appears that a single press in Jaggard's shop was able to machine about 2,400 impressions daily--or about 1,200 perfected Folio sheets.[10] We could reasonably expect, then, that a single press in Danter's shop would machine very close to the same number of impressions--about 2,400 in an average working day; that is, it could machine about 1,200 perfected sheets of the first quarto of Titus daily. If, then, the size of the edition of Titus had been the same as the Folio (around 1,200 copies), the press would have ordinarily machined about one perfected sheet of the edition in one day. But if this were true, it is most unlikely that Compositor J could have kept up with the press--as he in fact did--because he would not normally have been able to compose a full sheet of Titus, containing 11,520 ens, in an average working day;

instead we may reasonably suppose that he was able to set only about 10,500 ens daily, or not quite one full sheet. If, however, the size of the edition were somewhat larger than 1,200 copies, say 1,250, the press would probably have been able to print something less than one perfected sheet of the entire edition in an average working day; or, Compositor J, in the main, could have matched the speed of presswork (which he obviously did) if the edition of Titus Andronicus was around 1,250 copies.[11] This is, granted, an approximation, but one that does not seem at all unreasonable. Of fundamental importance, however, is the fact that Compositor J was able to keep up with the press, for we find no shred of reliable evidence which indicates that a second compositor was working simultaneously on the play.

How the first quarto of Titus Andronicus was set by formes by a single compositor seems reasonably clear. Precisely why it was composed in this manner, however, still remains something of a mystery. The two reasons heretofore advanced--in order to avoid critical type shortage and in order to employ a second compositor to maintain a satisfactory balance between composition and presswork speeds--simply do not apply to this play. The question of edition size touched on in the preceding paragraph, however, suggests that for whatever precise reason it was adopted, this method of printing would not have been employed on an edition which

did not closely approximate the largest allowable size. It would even seem possible to generalize this much: that setting by formes by a single compositor, the kind of operation we find in Titus, was perhaps not normally undertaken unless a rather large edition had been decided upon. Indeed, this problem of edition size would seem to be still another matter about which we as yet have very little basic information.

It has been demonstrated that setting by formes made the texts so composed especially liable to certain types of corruption: namely, mislineation; the alteration and sometimes the suppression of stage directions; and, by far the most serious, the omission of words, phrases, and even whole lines of the text proper, these larger omissions sometimes being combined with unauthorized editing to conceal the fact that something has been left out. And yet, even though time and labor were required to cast-off all but three and one-half pages of the copy before composition and printing began, setting by formes was nevertheless adopted in the first quarto of Titus Andronicus, even though there was no clear need to set the play in this manner for the reasons advanced up to now. That we need to know a great deal more about Elizabethan printing-house methods is eminently clear; our present knowledge of quarto printing, especially, is far from complete. And it seems appropriate

indeed to recall again Professor Bowers' remark of a decade ago which was cited at the beginning of this exercise, for the present study has, I think, pointed out that in fact little work of a truly basic nature has thus far been accomplished--and that "much remains to do."

APPENDIX I

Type Shortages

Italic "us" ligatures and a fount of small upper case "T's" provide the evidence of type shortage. The figure to the left of the diagonal line indicates the number of "us" ligatures (or normal upper case "T's") used in the page. The figure to the right of the diagonal line shows the number of separate italic "u" plus "s" combinations (or small upper case "T's"). Thus A3 contains five italic "us" ligatures, and no separate italic "u" plus "s" combinations; and the page shows six normal upper case "T's" and no small upper case "T's." The pages, it will be noticed, are arranged by formes in the order in which they appear to have been printed.

	us/u plus s	T/T
A3	5/0	6/0
4^v	0/3	11/0
3^v	4/3	6/0
4	0/8	7/0
B1	2/7	8/0
2^v	0/18	13/0
3	0/5	10/0
4^v	0/20	9/0

	us/u plus s	T/T
B1^{v}	0/6	0/10
2	0/9	0/8
3^{v}	0/16	2/6
4	0/4	2/3
C1	1/18	10/1
2^{v}	0/3	12/0
3	0/5	4/5
4^{v}	0/3	14/1
1^{v}	0/8	1/8
2	0/6	0/10
3^{v}	0/4	0/6
4	0/6	7/1
D1	1/3	7/0
2^{v}	0/2	6/0
3	0/2	5/0
4^{v}	1/8	4/0
1^{v}	0/1	0/7
2	0/5	2/4
3^{v}	0/2	6/6
4	0/4	4/3
E1	1/10	6/0
2^{v}	0/2	4/0
3	0/3	7/0
4^{v}	0/7	5/0

	us/u plus s	T/T
E1^{v}	0/4	7/0
2	0/6	4/0
3^{v}	1/6	4/0
4	0/11	0/5
F1^{v}	2/10	0/5
2	1/4	2/2
3^{v}	1(?)/13	3/0
4	0/5	2/0
1	0/15	4/0
2^{v}	0/5	12/0
3	0/5	6/3
4^{v}	0/5	3/1
G1	0/10	8/0
2^{v}	0/1	3/1
3	0/2	0/7
4^{v}	0/10	7/1
1^{v}	1/13	4/0
2	1/4	5/0
3^{v}	0/3	0/7
4	0/2	3/4
H1	1/11	5/0
2^{v}	0/4	5/0
3	0/3	3/0
4^{v}	1/2	5/1

	us/u plus s	T/T
H1^{v}	1/11	3/0
2	0/8	3/0
3^{v}	0/7	7/1
4	0/9	3/0
I1	0/4	6/3
2^{v}	0/8	4/0
3	0/5	6/1
4^{v}	1/10	7/0
1^{v}	1/4	5/4
2	0/1	1/0
3^{v}	0/3	5/1
4	0/4	3/0
K1	1/15	2/3
2^{v}	0/13	6/0
3	0/4	8/2
4^{v}	0/3	1/1
1^{v}	0/0	5/2
2	0/10	2/0
3^{v}	0/3	4/4
4	0/12	8/2

APPENDIX II

Chart of Identifiable Types in <u>Titus Andronicus</u> Q1

(The occurrences of each type are listed by page and line number; thus "a22" is first seen in $B1^{V}$ line 16, again in C4, line 3, and so forth.)

a22: $B1^{V}$.16, C4.3, $E2^{V}$.15, G2.10, $I2^{V}$.22, K4.36

A21: B1.28, C3.16, D3.7, $F1^{V}$.34, $G3^{V}$ 33, $I1^{V}$.30

A22: B3.12, C2.24, $D1^{V}$.25, F3.11, G4.14

b22: B4.24, C4.34, $D3^{V}$.23, $F1^{V}$.18, $G3^{V}$.16

c21: $F4^{V}$.34, $I2^{V}$.28

c22: $G4^{V}$.5, H3.14

C21: $B2^{V}$.28, $C2^{V}$.26

C23: $B2^{V}$.11, C1.36, $G4^{V}$.5

C24: B3.13, $C2^{V}$.23, D1.19, H1.31, $K3^{V}$.25

<u>C21</u>: A4.24, E2.27, G1.6, K1.25

d21: $B2^{V}$.7, $C2^{V}$.31, D3.10, $E4^{V}$.16, F1.19, H3.5

d22: $B2^{V}$.28, C1.12, D1.11, E4.10, $G4^{V}$.18, $H4^{V}$.17

d23: $F4^{V}$.23, $I2^{V}$.3

d24: $D3^{V}$.2, $G3^{V}$.21, I1.11

d25: C3.20, $D4^{V}$.11, $E1^{V}$.21, $G2^{V}$.12, $H4^{V}$.14

d26: B4.3, C2.11, $D1^{V}$.17, $F4^{V}$.34, I4.22, $K3^{V}$.23

<u>d21</u>: A3.17, F2.19

e21: $A4^{V}$.20, $B3^{V}$.19, $C3^{V}$.9, $D1^{V}$.3, $E3^{V}$.31

e22: D2.24, F4.6, G4.28, I1.24

e24: E4.10, G4^{V}.10, H1.27, K1^{V}.11

E21: D3^{V}.31, G3.29

f22: D1^{V}.1, F3.3, H4.30, K3^{V}.21

f23: B4^{V}.10, C1.30, D4^{V}.9, F4^{V}.2, I1.15, K2^{V}.28

f24: A3.22, D2^{V}.14, E4^{V}.1, F1.10, H2.34, K4.17

f25: D4.15, F2.22, H4.34, I3^{V}.5

f26: G3.8, H3.20, I3.30

f27: G4.14, I1.11

g21: B1.18, C3.27, D2^{V}.28, E3.30, F2^{V}.29, I3^{V}.19

g22: A4^{V}.25, H2.2, K3.13

g23: F4^{V}.1, I1.14, K1.24

g24: D4.31, F2,23

G21: B2.33, C3^{V}.6, H2.23, K3.17

h21: B3.3, C1.11, G2^{V}.26, K2^{V}.21

h23: B1^{V}.14, C1^{V}.35, D3^{V}.22, F1^{V}.17, H3.34, K3.25

h25: C1.32, F1.2, H2^{V}.1, K2.18

h29: E1^{V}.26, H1.19, K2.17

h35: G3.1, H1^{V}.10, I4^{V}.22

i21: B4.19, C2.6, H3.19, I1.26, K1^{V}.26

i23: B1.1, C3.19, D4^{V}.13

i30: C3.4, E2.1, G3.11, H3.19

I21: B4.29, E2^{V}.1, G3^{V}.23, I1.29

I22: E2.4, H3.26

k21: C2^{V}.18, D2.11, G1^{V}.5

k22: C4.2, D3^{V}.6, F2.28, G1^{V}.13, I1.19, K2^{V}.1

k23: B3.22, C1.7, D2^{V}.11, E3.32, F2^{V}.15, H4^{V}.5, K1^{V}.31

k24: $D3^{V}.27$, G4.20, $F1^{V}.6$

l23: $H2^{V}.18$, K2.17

L21: C1.30, D3.14, $E4^{V}.30$

L22: F1.18, $H3^{V}.3$, $k4^{V}.24$

m21: C4.17, D4.8, K2.17

m22: $H4^{V}.5$, K2.15

m23: $F1^{V}.22$, G4.15, K4.7

m24: C1.8, $E4^{V}.24$, $F4^{V}.14$

m25: $G4^{V}.32$, $H2^{V}.12$

m34: B2.17, C4.22, $D3^{V}.2$, $I4^{V}.9$, K1.19

M21: $B4^{V}.22$, C3.32, D3.25, $E1^{V}.23$, G1.15, H1.33, K2.1

n21: $A3^{V}.28$, E1.20, $G4^{V}.16$, $H4^{V}.29$, K4.13

n22: D4.3, F2.32

n23: E4.19, G3.1, H2.19, K4.34

n24: $A4^{V}.20$, $B3^{V}.3$, $C1^{V}.24$, D4.8, G4.6

n25: B4.11, C2.6, D2.15, $F3^{V}.8$, H2.14, K3.11

n27: $A4^{V}.29$, $B2^{V}.28$, C1.16, $D2^{V}.3$, G3.9

<u>n21</u>: $B1^{V}.18$, C2.29, D4.20, $F1^{V}.9$, G2.35, $I2^{V}.7$

N21: B3.19, C1,3

N22: $B2^{V}.17$, C1.11, G3.20

o21: $B1^{V}.1$, C2.7

o23: $C2^{V}.12$, E2.4

o24: B3.33, C1.14, D2.19, $F3^{V}.29$, G4.16, I1.29

<u>o21</u>: E3.13, I3.17

O22: E1.6, $K4^{V}.3$

O23: $B4^{V}.8$, C4.21, $D3^{V}.19$

O25: $D3^{V}.12$, $F1^{V}.18$, $K3^{V}.30$

p21: $B1^{V}.25$, $C1^{V}.30$, D4.19, G4.31

p22: $B2^{V}.23$, $C2^{V}.7$, $D4^{V}.3$, G4.5, $I4^{V}.25$

p24: $A3^{V}.2$, $E1^{V}.5$, $G2^{V}.18$, $H3^{V}.7$, $K4^{V}.31$

p25: B3.16, C1.7, $D2^{V}.26$, E3.24, $F2^{V}.33$, H4.12, K1.17

p26: $E1^{V}.26$, $G2^{V}.2$, $H3^{V}.18$, I4.34

p27: G3.12, H2.21, K3.7

p28: $H1^{V}.32$, $I4^{V}.6$, K1.3

p34: $B3^{V}.34$, $C1^{V}.24$, $D3^{V}.29$, $F1^{V}.5$, G2.23, K4.24

P21: $E4^{V}.32$, $H4^{V}.24$, K2.26

q21: $B3^{V}.26$, $C3^{V}.13$, $D1^{V}.20$

<u>S21</u>: A3.20, $B2^{V}.4$, H4.16

t21: $B1^{V}.33$, $C1^{V}.14$, $D3^{V}.23$, $F1^{V}.4$, G4.24, $I2^{V}.4$

t22: $B2^{V}.9$, C1.25, D1.1, $E3^{V}.23$, $G4^{V}.15$, I2.29

t23: $B2^{V}.26$, C1.33, $D2^{V}.15$, E3.24, $F2^{V}.3$, $K3^{V}.32$

t24: B3.9, C1.5, D1.29, $E3^{V}.3$

T21: B3.28, C1.13, $D4^{V}.20$, $E2^{V}.32$, $F2^{V}.35$, $H3^{V}.28$, $K2^{V}.26$

T24: $D4^{V}.15$, $G4^{V}.30$

T26: $H1^{V}.5$, I3.3

T28: $H3^{V}.2$, $I2^{V}.35$, $K2^{V}.14$

T32: B1.10, $C2^{V}.3$, D3.28, E3.34, $F2^{V}.7$, H3.22, I4.32, K4.23

<u>T21</u>: $E1^{V}.13$, $G2^{V}.5$, H3.5

u21: A3.16, $B2^{V}.31$, $C2^{V}.10$, $D2^{V}.6$, E3.19

u22: $B3^{V}.15$, $C1^{V}.8$, $D3^{V}.9$, $F1^{V}.5$, G2.34, $I2^{V}.34$

u23: B4.32, C2.33, H4.35

u24: $C4^{V}.8$, D1.31

<u>u21</u>: A4.9, G1.10, $H1^{V}.3$

V21: $D4^{V}.33$, E1.32, G3.8, $H1^{V}.26$, $I4^{V}.10$, K1.1

V22: $H1^{V}.30$, $I4^{V}.5$

w22: E3.7, $F2^{V}.7$, H4.29

W21: G1.33, $H3^{V}.27$

y23: H3.23, I1.22, K3.7

ff23: C2.32, $D1^{V}.13$, $F3^{V}.17$, $G1^{V}.8$, $I2^{V}.15$, K4.23

fi21: $D3^{V}.19$, K4.26

fi22: $F2^{V}.11$, I1.8

APPENDIX III

Additional Spelling Evidence

The chart on the following two pages sets forth the variant spellings of three words--Queene, blood, and warre(s)--and three common endings, -es, -ie, and -ll. The pages are arranged by formes in the order in which they appear to have been printed.

	Queene	Queen	blood	bloud	warre(s)	war(s)	-es	-ess	-ie	-y	-ll	-l
A 5									1		3	
4v					1		1		2	1	4	
5v					1		1		2	1	3	
4	1						1		2		1	1
B 1	1			1						1	2	1
2v									2	1	1	1
3	2						1			1	1	
4v									6	1	4	
1v	3		1						3		3	
2						1	5		9		5	
3v							1		2	3	3	
4	4						1	1	3	2	2	
C 1	1								4	1	1	
2v							1		7	1	2	1
3	1						1		1	1	1	
4v									5		1	
1v									2		1	
2	1								7		1	
3v									1	1	4	1
4									2			1
D 1									4	2		1
2v	3						1		4	1	1	
3							2		7	2	3	
4v			6						3	1	2	
1v									10	1	6	
2			2						7	1	8	1
3v								1	6	4	1	
4	1								5		4	
E 1									4		3	
2v			2				1		4		2	1
3			2		1				9		6	
4v							2		4	1	6	
1v			1					1	3		4	
2							1			2		
3v			1						2		2	
4							2		5	2	1	1
F 1v				2					2	1	4	
2									6		2	
3v	1								3		3	
									5			
1							2		6		2	
2v									1			1
3									6		2	
4v									3			1

	Queene	Queen	blood	bloud	warre(s)	war(s)	-es	-ess	-ie	-y	-ll	-l
G 1			2						2	1	3	1
2v										2	3	
3			1		1		3		2	2	7	2
4v					1				5	2	4	
1v							1		6	1	2	
2				1					5		1	2
3v				1					6		2	
4									2	1	3	
H 1			1		1				5	2	4	
2v					1		1		5		5	1
3									1	2	5	
4v									4	2	3	1
1v									4		1	
2									3		1	
3v									5		3	
4							1		4		2	
H 1				1					2	3	6	
2v										1	3	
3			1				4		7	3	2	
4v							1		1	4	1	
1v	1		1				1		3	1	1	
2									6	1		
3v			1						7	3	2	
4	2								3		3	
K 1									2	2	2	
2v							3		3	2	3	
3							1		7		6	
4v							1		5		3	
1v			3						4		2	
2	1								2	1	3	1
3v			1				3		1	1	1	
4			1						5	5	6	
	23	0	27	6	7	1	44	3	294	79	201	20

NOTES

Chapter I

[1] "Shakespeare's Text and the Bibliographical Method," SB, VI (1954), 81.

[2] Shakespeare Folios and Quartos (Oxford, 1909), p. 158. For additional critical comments of F2, as well as F3 and F4, see Matthew W. Black and Matthias A. Shaaber, Shakespeare's Seventeenth Century Editors, 1632-1685 (New York, 1937).

[3] Studies in the First Folio (Shakespeare Association, 1924), p. 166.

[4] See Black and Shaaber, p. 33.

[5] Black and Shaaber record 1679 changes in F2, 943 in F3, and 751 in F4.

[6] See Black and Shaaber, p. 54.

[7] The Works of William Shakespeare, ed. William Aldis Wright (London, 1863), I, xxviii.

[8] See p. 59.

[9] Black and Shaaber, p. 96.

[10] R. B. McKerrow, "The Treatment of Shakespeare's Text by His Earlier Editors 1709-1768," Annual Shakespeare Lecture of the British Academy, 1933, Proceedings of the British Academy, XIX (London, 1933), p. 94.

[11] McKerrow notes that F1 omits about 231 lines which are found in Q2 and later quartos; Rowe restored approximately 131 lines in his edition. The present discussion of Rowe's work as an editor of Shakespeare, as well as the work of his eighteenth-century successors, is based, in the main, upon McKerrow's lecture mentioned in note 10.

[12] Life of Johnson (London, Oxford Standard Authors, 1961), p. 226.

[13] As quoted in Walter Raleigh, Six Essays on Johnson (Oxford, 1910), p. 81.

[14] This and the two following quotations from Johnson's Proposals are taken from Samuel Johnson on Shakespeare, ed. W. K. Wimsatt, Jr. (New York, 1960), pp. 16, 19, and 20.

[15] As quoted in McKerrow, p. 114.

[16] Johnson on Shakespeare, p. 67.

[17] McKerrow, p. 115.

[18] Alice Walker, "Edward Capell and His Edition of Shakespeare," Annual Shakespeare Lecture of the British Academy, 1960, Proceedings of the British Academy, XLVI (London, 1960), p. 143.

[19] The full title of Capell's work is: Prolusions; or, Select Pieces of Ancient Poetry, compil'd with great Care from their several Originals, and offer'd to the Publick as Specimens of the Integrity that should be found in the Editors of worthy Authors.

[20] Capell, Prolusions (London, 1760), sig. A5.

[21] Introduction, p. 19, as quoted by Walker, p. 135.

[22] Introduction, p. 20, as quoted by Walker, p. 135.

[23] Fredson Bowers, "McKerrow's Editorial Principles for Shakespeare Reconsidered," SQ, VI (1955), 310.

[24] Cambridge Shakespeare, V, xviii.

[25] Johnson on Shakespeare, pp. 1-2.

[26] For an excellent account of the studies of these three scholars, see F. P. Wilson, "Shakespeare and the 'New Bibliography,'" The Bibliographical Society, 1892-1942, Studies in Retrospect (London, 1945), pp. 76-135.

[27] As quoted in Wilson, p. 77.

[28] As quoted in Wilson, p. 78.

[29] Shakespeare's Fight With the Pirates and the Problem of the Transmission of His Text (London, 1917), p. 61.

[30] "Some Editorial Principles (with special reference to Henry V)," SB, VIII (1956), 95-96.

[31] See especially, C. J. Sisson, New Readings in Shakespeare, 2 vols. (London, 1961).

Chapter II

[1] The chief studies which focus upon this matter are: W. H. Bond, "Casting Off Copy by Elizabethan Printers: A Theory," PBSA, XLII (1948), 281-291; Charlton Hinman, "Cast-Off Copy for the First Folio

of Shakespeare," SQ, VI (1955), 259-273; George Walton Williams, "Setting by Formes in Quarto Printing," SB, XI (1958), 39-53; numerous articles by Robert K. Turner, Jr., particularly "Printing Methods and Textual Problems in A Midsummer Night's Dream Q1," SB, XV (1962), 33-55 and "The Printing of A King and No King Q1," SB, XVIII (1965), 255-261; and the unpubl. diss. (University of Kansas, 1965) by Alan E. Craven, "The Printing of Shakespeare's Richard II, 1597."

[2] Joseph Moxon's Mechanick Exercises on the Whole Art of Printing (1683-1684) is the only seventeenth-century treatise on printing-house practices in England.

[3] Mechanick Exercises, ed. Herbert Davis and Harry Carter (London, 1962), pp. 239-240.

[4] Ibid., p. 242.

[5] Ibid., p. 243.

[6] The precedent forme is simply the first and the non-precedent forme the second composed in a sheet.

[7] John Danter had two presses which, along with "certen letters pica, and pica Roman, and other sorte

of letters in fourmes and cases," were seized and defaced in 1596. See Records of the Court of the Stationers' Company, 1576 to 1602--from Register B, ed. W. W. Greg and E. Boswell (London, 1930), p. 56.

8 Mechanick Exercises, p. 328.

9 Balance between composition and presswork as well as edition size are discussed by Charlton Hinman in The Printing and Proofreading of the First Folio of Shakespeare (Oxford, 1963). See especially I, 39-47.

10 See the unpubl. diss. (University of Kansas, 1965) by Alan E. Craven, "The Printing of Shakespeare's Richard II, 1597."

11 The discussion of the printing of Titus Andronicus in the following chapter will, I believe, demonstrate the truth of this proposition.

12 This order and relative speed of composition and presswork assumes, to be sure, an essentially continuous operation in the printing house, which certainly would have been desired by any master printer for simple economic reasons; that is, it does not take into account any major (and costly) delays. And we may ordinarily

assume that the printing operation was, in the main, uninterrupted, provided there is no evidence to the contrary.

[13] The most extensive is: Harry R. Hoppe, The Bad Quarto of "Romeo and Juliet," A Bibliographical and Textual Study (Ithaca, 1948).

[14] Unless, that is, delays occurred between sheets A and B, B and C, and C and D, a situation which is not substantiated by headline evidence.

[15] And it is important to note that the play begins on A4; hence sheet A contains less than two full pages of text.

[16] Involved here, and indeed in almost any instance where we find distinctive types in both formes of a given sheet, is a delay in printing. It might seem at first glance, however, that sheets F and I might still have been set seriatim, despite the fact that identifiable types appear in both formes of each sheet. That is, although it would be to the highest degree improbable, the compositor might have composed 1, 1^v, 2, 2^v, and so on until he finished setting 4; after inner F (or inner I) had been sent to press, he might

then have waited to set the last page of the sheet, $F4^v$ (or $I4^v$) until the precedent forme was wrought off, unlocked, and distributed. But evidence provided by headlines strongly suggests that in sheets F and I the outer forme (containing 4^v) was composed and sent to press first; thus sheets F and I could not possibly have been set seriatim.

[17] Hoppe, p. 50.

[18] The way in which type-recurrence evidence can be used to determine how many cases, and therefore how many compositors, were used to set a play, and which pages were set by a given compositor will be made clear in the next chapter in the discussion of the printing of Titus Andronicus.

[19] SB, XI (1958), 39-53.

[20] Ibid., p. 40.

[21] Ibid., pp. 52-53.

[22] Ibid., p. 53.

[23] "The Composition of the Quarto of Much Ado About Nothing," SB, XVI (1963), 9-26.

[24] Ibid., p. 10.

[25] The type recurrences listed here (as well as the upper case italic "B's" listed below) are the result of my own investigation. Professor Smith used only collotype facsimiles of the Huntington copy of Much Ado for type identification. I have examined positive photostats of the Huntington copy, and in addition, positive photostats of the Folger copy and the Capell copy (Trinity College). Based on the examination of three copies of the play, which is highly desirable in type identification work, some identifications were made which Professor Smith does not list in his study; and several of his identifications were regarded as doubtful.

[26] Of the thirty-two occurrences listed there are but five instances in which the italic "B's" do not occur near the left-hand margin of the page, and these would probably have presented no great difficulty to the compositor: (1) B21 on $C2^{v}$ is in the catchword and therefore could have been removed easily enough without disturbing the remainder of the type page; (2) B23 on $C4^{v}$ is found in a centered stage direction and "stands out" plainly with at least one line of white space both above and

below the stage direction; (3) B23 on D1 is also found in a centered stage direction and is the first talic "B" on the page (working down from the top of the page); (4) B25 on E3 is in a centered stage direction; and (5) B25 on I2^{v}, line 33, again found in a stage direction, stands out less clearly than the other occurrences noted above. But it is also interesting to notice that it is the first italic "B" to be found on the page (again, working down from the top of the page).

Chapter III

1 It will be seen in the following pages that a single compositor (referred to as Compositor J) set the whole of Titus.

2 In the accompanying graph sheet A is nevertheless arranged by formes. For regardless of how sheet A was composed, it was printed and subsequently distributed by formes.

3 The charted spelling evidence in Chapter IV will show that there is perhaps some slight indication (and indeed it is no stronger than this) that a different compositor may have been employed on part of sheet B (and perhaps part

of sheet C as well). But regardless of how many <u>different</u> compositors were at work on <u>Titus</u>--two or twenty--the important question to be asked here is how many were at work at a given time--one or more than one. And it is perfectly clear that only one compositor at a time was employed on the setting of this play.

4 Although the precise order in which the individual pages of a forme or sheet were distributed can at times be clearly established, this information is in fact of little help in determining finally whether or not a compositor has corrupted the text of the play he has composed. It is discussed here simply to show that type recurrence can sometimes furnish rather detailed information about the order of distribution; but in subsequent sheets distribution order will be dealt with more briefly.

5 An example of the type-distribution pattern furnished when two compositors worked simultaneously on a quarto play can be seen by looking back to the type-recurrence patterns in sheets E-K of <u>Romeo and Juliet</u> (see page 50). Notice here that one group of types appears regularly (and only) in the first four <u>consecutive</u> pages of each sheet --1, 1^{v}, 2, and 2^{v} Types in this second group are g21, m21, and y21; the remainder of the charted types are in the first group. That is, the first compositor regularly

set pages 3 and 4^v in an outer forme while the second compositor was composing pages 1 and 2^v in the same outer forme; and the first compositor also regularly composed pages 3^v and 4 in an inner forme while the second compositor set pages 1^v and 2 in the same inner forme.

6 It is admittedly difficult to understand why B(i) headlines were not transferred to C(i), especially since the four B(i) pages of text were distributed in order to set C(i); and why they were, in fact, not used again until D(o). But this is not the only instance in this play of a rather irregular transferring of headlines. The evidence here (and elsewhere), however, is clear, and we can perhaps do no more than wonder why Compositor J operated in this way. That he did so is a strong indication that presswork on C(o) had been completed by the time J had finished setting C(i).

7 There is, in addition to the abundant type-recurrence evidence, one further bit of evidence which confirms that sheet D was set by formes. Type-shortage evidence shows that only two italic "us" ligatures occur in sheet D--one in D1 and the other in $D4^v$. Had sheet D been set seriatim, it seems reasonable to suppose that the second ligature would almost certainly have been used on one of the pages prior to $D4^v$. That the two ligatures in sheet D do in fact

occur on D1 and $D4^{v}$ is, granted, perhaps little more than a suggestion. But the pattern is consistent with the testimony presented by more extensive type-recurrence evidence.

8 In addition to the occurrence on E1, a ligature appears once again--on $E3^{v}$. This later occurrence, however, is indeed difficult to explain, especially when viewed in conjunction with type-recurrence evidence presented by sheet E. Recall that in Chapter II it was mentioned that type-shortage evidence sometimes becomes much less valuable in the later sheets of a play. The pattern mentioned above is one example of the problems encountered when dealing with this sort of evidence.

9 It may also be noted here that Compositor J might have, as was mentioned above, distributed some small amount of additional material while setting E(i), if he found that the additional material which he very likely distributed while setting D(i) plus that material which he distributed just before setting sheet E--D(o) and A(i)--was not going to be quite enough to enable him to set sheet E without running critically short on particular types.

10 The largest number of distinctive types found in any one sheet is fifty. The average number of distinctive types per page, then, is about six, so we would therefore

expect that the two pages of additional material would contain about twelve distinctive types. The last two pages of D(i)--3^v and 4--contain eight distinctive types not hitherto seen in the play; and the last two pages of E(i)--3^v and 4--contain five more distinctive types which have not appeared previously for a total of thirteen "new" types.

11 That F(i) was precedent is also indicated by type-shortage evidence. No italic "us" ligatures are seen in F(o). In F(i), however, this particular sort does appear: two in $F1^v$, one in F2, and possibly one in $F3^v$, line 20, although inking makes this appearance uncertain. And to look ahead for a moment, this order of composition and printing in sheet F is further suggested when we observe that F(i) types are next seen in G(i) whereas F(o) types do not reappear until sheet H.

12 The pattern of italic "us" ligatures in sheet F also supports the idea that this sheet was set by formes: two ligatures appear in $F1^v$, one in F2, and possibly one more in $F3^v$; but none appear in the pages of F(o). Had sheet F been composed seriatim, it seems likely that at least one of the ligatures would have been used in the first page--in F1--where there are

no fewer than fifteen italic "u" plus "s" combinations.

13 It is also possible that F3 was distributed along with G(o), F1 and $F2^{v}$. It is well to remember that F3 contained only two distinctive types, one of which, the anomalous upper case "A," was accidentally displaced and subsequently used in G(i). Therefore F3 might have been the first page distributed, then covered up by types from F1, 2^{v}, and the four pages of G(o). This could conceivably account for the failure of the single F3 type to reappear in one of the H(o) pages, and explain why it does not in fact reappear until H4 (see line 44 in the graph).

14 Additional evidence which perhaps clinches the idea that sheet H was set by formes is provided by type distribution. Compositor J distributed F1, 2^{v}, and G(o)--and possibly F3--before he began setting sheet H. Types in the page <u>last</u> distributed will generally be "on top" in the sort boxes and therefore will normally be the <u>first</u> types to be used in subsequent composition. The only real concentration of freshly distributed types are those from $G4^{v}$, and this was very likely the last page to be distributed. Had sheet H been set seriatim, then, we would expect to find $G4^{v}$ types in H1, 1^{v}, and perhaps 2. But in fact <u>no</u> $G4^{v}$ types reappear in any

page of H(i); instead they are next found only in H(o) pages--and in all four pages of H(o).

15 H4 may have been distributed along with $H1^V$ and $H3^V$. On the other hand Compositor J might have distributed only $H1^V$ and 3^V before he finished setting I(o), and then distributed H4 while he was composing I(i). And since he is clearly behind the press at this time, it is reasonable to suppose that he would have waited until he had finished I(o) before he distributed H4. At any rate he certainly would not have needed to stock his case with H4 types in order to set the two remaining pages of I(o), for at this point he had already distributed no less than eight pages--$F4^V$, H3, the four pages of G(i), and $H1^V$ and 3^V.

16 As mentioned earlier it is possible--though most unlikely--that Compositor J distributed some additional (non-<u>Titus</u>) material before he began setting H(i). But even if he did, it was probably not very much. It will be remembered that four types not previously seen in the play were first noticed in H(i); and three of these types appeared in $H1^V$. If we use the figures cited earlier--about six distinctive types per page--J may just possibly have distributed something less

than one page of additional material; on the other hand, all four of these "new" types may have become distinctive through injury during the machining of F(o) and H(o).

17 It is possible of course that I4 was not distributed until Compositor J had finished setting K1^{v} and 2, or just before he composed K3^{v}. Of the three distinctive types contained in I4, only two reappear in the play: one is next seen in K3^{v} (see line 32 in the graph), and the other is found in K4 (see line 42). But I4 might also have been the first page distributed before any page of K(i) was set--distributed and then covered over with types from H1, 2^{v}, and 4^{v}, which would explain the absence of I4 types in the first two pages of K(i). One further point: type distribution patterns do not in this instance indicate the exact order in which the three H(o) pages were distributed.

Chapter IV

1 This is not to suggest that the curious Romaine(s)--Roman(s), Romane variants are fully explained here. For instance, they may be the result of variant spellings in the copy from which the play was printed; and a much more detailed investigation of the spellings in the play than the one undertaken here might well shed further light on

this matter. But there can be little doubt, it seems, that no more than one compositor was at work on this section of the play--B(i) and C(o), and evidently C(i) as well.

2 It is well known that compositors sometimes departed from preferred spellings in order to justify their lines. We sometimes tend to think, however, that justification was required principally (if not only) in long lines of verse or prose, that a compositor would use a shorter spelling, say do instead of his preferred doe, in order to get a given line of copy into a single line of type; but we must remember that short lines also had to be justified. In fact each line of type had to be justified, or extended to the right-hand margin of the type page, either with pieces of type that printed out on the paper (as we would find in a long line), or with metal spaces or wooden blocks that did not print out.

3 But the double "r" in the preferred warre(s) was not apparently carried over to the adjectival form, since we find "warlike" no fewer than five times in the play.

4 Whether this reflects a "house rule" in John Danter's shop or the idiosyncrasy of an individual compositor is, of course, not absolutely certain; but it could probably

be determined by an extensive investigation of other books printed by Danter.

Chapter V

[1] See the unpubl. diss. (University of Kansas, 1965) by Alan E. Craven, "The Printing of Shakespeare's Richard II, 1597."

[2] The Shakespeare First Folio (Oxford, 1955), p. 203.

[3] Ibid., p. 203.

[4] Ibid., p. 208. The Folio also contains an entire scene of eighty-five lines (III.ii, the Banquet scene), and the short query--"What booke?"--inserted after IV.i.36; neither is found in the earlier quartos--Q1 (1594), Q2 (1600), and Q3 (1611). The Banquet scene evidently was, as Greg says, "inserted in manuscript [into a corrected copy of Q3 which then served as copy for the Folio]" (p. 208). Greg also points out that the line--"What booke?"--"is certainly an error" (p. 206). And J. C. Maxwell says that it "seems to be a compositor's vagary." See the Arden Titus Andronicus (1953), note on p. 76.

[5] Malone thought that the line should belong to Marcus, but as J. C. Maxwell points out, "it is equally possible that Titus answered his own rhetorical question." See the Arden Titus Andronicus (1953), note on p. 23.

[6] See Craven, pp. 48-51.

[7] It will be remembered (see pages 129-130) that Compositor J distributed an extra page (I4) probably in order to insure that he would not run short of particular types while setting the last forme in the play, K(i). One further point: ten pages were standing at the completion of sheets B, C, and D.

[8] This is not to say that J had exactly thirteen pages of types (and no more) at his disposal. For we must assume that even with thirteen pages standing, some types remained in his case. We cannot be absolutely certain about how much there was, but there seems to have been no very critical shortage of particular sorts other than those which we would normally expect to find--upper case italic "T's," "M's," "L's," upper case roman "W's," and the like.

[9] See Charlton Hinman, The Printing and Proofreading of the First Folio of Shakespeare (Oxford, 1963), I, 45.

[10] Ibid., pp. 39-47.

[11] In 1587 the Stationers' Company limited the size of editions, with a few exceptions (such as textbooks), to 1,250 to 1,500 copies. See A Transcript of the Company of Stationers of London, 1554-1640, ed. Edward Arber (London, 1875), II, 43 and 883.

A Selected Bibliography

Black, Matthew and Matthias A. Shaaber. Shakespeare's Seventeenth Century Editors. New York, 1937.

Boswell, James. Life of Johnson. London, Oxford Standard Authors, 1961.

Bowers, Fredson. "Shakespeare's Text and the Bibliographical Method," Studies in Bibliography, VI (1954), 71-91.

_____. "McKerrow's Editorial Principles for Shakespeare Reconsidered," Shakespeare Quarterly, VI (1955) 309-324.

Capell, Edward. Prolusions: or, Select Pieces of Ancient Poetry, compil'd with great Care from their several Originals, and offer'd to the Publick as Specimens of the Integrity that should be found in the Editors of worthy Authors. London, 1760.

Craven, Alan E. "The Printing of Shakespeare's Richard II," unpublished dissertation. University of Kansas, 1965.

Greg, W. W. The Shakespeare First Folio. Oxford, 1955.

Hinman, Charlton. The Printing and Proofreading of the First Folio of Shakespeare. 2 vols. Oxford, 1963.

Hoppe, Harry R. The Bad Quarto of "Romeo and Juliet," A Bibliographical and Textual Study. Ithaca, 1948.

McKerrow, Ronald B. An Introduction to Bibliography for Literary Students. Oxford, 1928.

_____. "The Treatment of Shakespeare's Text by His Earliest Editors, 1709-1768," Proceedings of the British Academy, XIX. London, 1933. (Annual Shakespeare Lecture of the British Academy.)

Moxon, Joseph. Mechanick Exercises on the Whole Art of Printing (1683-1684), ed. Herbert Davis and Harry Carter. London, 1962.

Pollard, A. W. Shakespeare Folios and Quartos. Oxford, 1909.

_____. Shakespeare's Fight With the Pirates and the Problem of the Transmission of His Text. London, 1917.

Raleigh, Walter. Six Essays on Johnson. Oxford, 1910.

Samuel Johnson on Shakespeare, ed. W. K. Wimsatt, Jr. New York, 1960.

Shakespeare, William. Titus Andronicus. The First Quarto, 1594. Folger Shakespeare Library Facsimile. With an Introduction by Joseph Quincy Adams. New York, 1936.

Shakespeare, William. The [old] Arden Shakespeare: Titus Andronicus, ed. H. B. Baildon. London, 1904.

_____. The Arden Shakespeare: Titus Andronicus, ed. J. C. Maxwell. London, 1953.

_____. The Cambridge Shakespeare: Titus Andronicus, ed. William Aldis Wright. Cambridge, England, 1865.

_____. The New [Cambridge] Shakespeare: Titus Andronicus, ed. John Dover Wilson. Cambridge, England, 1948.

Smith, John H. "The Composition of the Quarto of Much Ado About Nothing," Studies in Bibliography, XVI (1963), 9-26.

A Transcript of the Company of Stationers of London, 1554-1640 A.D., ed. Edward Arber. 5 vols. London, 1875-1892.

Turner, Robert K., Jr. "Printing Methods and Textual Problems in A Midsummer Night's Dream Q1," Studies in Bibliography, XV (1962), 33-55.

Walker, Alice. "Edward Capell and His Edition of Shakespeare," Proceedings of the British Academy, XLVI. London, 1960. (Annual Shakespeare Lecture of the British Academy.)

Walker, Alice. "Some Editorial Principles (with special reference to Henry V)," Studies in Bibliography, XI (1958), 95-111.

Williams, George Walton. "Setting By Formes in Quarto Printing," Studies in Bibliography, XI (1958), 39-53.

Wilson, F. P. "Shakespeare and the 'New Bibliography,'" The Bibliographical Society, 1892-1942. Studies in Retrospect. London, 1945.