This paper explores the possible use of a visual representation of Shakespeare’s metrical patterns to help determine authorship and/or collaboration of plays. The foundation for this visual strategy is summed up by a comment from George T. Wright, a humanist working on verse metrics:

Shakespeare’s syllabic freedom combines with his metrical variety and his remarkable inventiveness in adjusting English phrases and sentences to the metrical line to produce an iambic pentameter verse which, for all its powerful influence on later poets, is unique in the English tradition.¹

The metrist Marina Tarlinskaja confirms:

The idiosyncratic features of a poet’s verse system (e.g., Shakespeare’s iambic pentameter) can be abstracted from all, or a large part, of his works and presented in the form of a model.²

What metrists do not know how to do is represent this model visually. Perhaps if we could see the idiosyncratic features, we might see differences between Shakespeare’s verse system and that of other playwrights of the time. The system exampled in this essay does not intend to compete with the staggeringly complex metrical analyses of metrists such as Tarlinskaja, Wright, or Kristin Hanson. This paper merely presents a new way, a simple way, of looking at the metre in the possibility that patterns hitherto unnoticed may appear once the complexity is removed.

But first it is important to realise that authorship attribution studies of the past 300 years can be, on close examination, compared to the medieval alchemists’ quests to transmute base metals into gold. Or perhaps a closer analogy is to voodoo where a particular method occasionally creates a desired result, complete with rhetoric and smoke screens (in the form of impenetrable charts and forensic data), but the results are inconsistent and equivocal and often include manipulation or suppression of unsupportive data. Studies have been made of word length, sentence length, full text length, extrametricality, syllables with certain vowel sounds, distribution of parts of speech, type-token ratios, ‘Characteristic K’ based on vocabulary richness, vocabulary distributions, word frequencies including hapax legomena and hapax dislegomena, semantic buckets, and cluster analyses. Brian Vickers itemises studies of feminine line endings, latinate vocabulary, contraction preferences, pause patterns, polysyllabic words, function words, alliterative words, vocatives, rhyme vs. blank verse, syntactical quotients, grammatical preferences, utterance junctures, and stress profiles. Jonathan Hope uses socio-historical linguistic evidence, such as the use of the auxiliary do; relative markers such as who, which, and that; and use of thou vs. you; he claims ‘the differences it detects between the linguistic usages of authors are explicable, and that it does not rely on complex statistical tests for validation’, although his book displays 56 tables and 60 graphs in 175 pages. Parallelisms were used by Gary Taylor and Stanley Wells to prove Shakespeare’s authorship of the poem Shall I Die? Subsequently Thisted and Efron developed an authorship attribution model based on butterfly collecting to cement the authorship of Shall I Die? They begin the article with this statement, ‘Our paper develops simple tests for this question based on the frequency of occurrence of unusual words,’ and twelve pages later end with:

This is a one-parameter exponential family with natural parameter $\beta_1$, so that the maximum likelihood estimate $\hat{\beta}_1$ satisfies

$$c'(p - \sigma(\hat{\beta}_1)) = 0,$$

(6.4)

where $c$ is the vector with $x$th component $\log(x + 1)$, and $p = m/m_{xy}$, the vector of relative proportions of counts in categories $1, \ldots, 99$. The estimated standard error of $\hat{\beta}_1$, according to usual large-sample theory, is

$$\left[ \frac{m_{xy}}{\left( \sum \hat{\sigma}_c^2 - (\sum \hat{\sigma}_c^2)^2 \right)^{\frac{3}{2}}} \right],$$

(6.5)

where $\hat{\sigma}_c = \sigma_x(\hat{\beta}_1)$.

Alternatively, we can consider the distribution of $m = (m_1, \ldots, m_{99})$ unconditionally, in which case its distribution is as described in (4.1) except only for $x = 1, \ldots, 99$. This is a two-parameter exponential family of distributions. The maximum likelihood value for $\hat{\beta}_1$ and its estimated standard error in this model are identical to those given by (6.4) and (6.5).

---


They ultimately declare that, ‘On balance, the poem is found to fit previous Shakespearean usage reasonably well.’ However, following those complex calculations, this attribution to Shakespeare was demolished by Don Foster and others. In 1989 Foster himself used stylistic computer analyses to prove Shakespeare’s authorship of _A Funeral Elegy for Master William Peter_ (in which his ‘aggressive editing’ managed to increase _A Funeral Elegy’s_ ‘average sentence length by 44 percent and more than double its percentage of run-on (enjambed) lines’ to ‘prove’ that Shakespeare had written it”), but in 2002 Gilles Monsarrat (and subsequently several others) proved the elegy was actually written by John Ford. Foster conceded, although many still wonder why the poem is signed W.S.

Marina Tarlinskaja generates complex metrical stress profiles based on ictics, non-ictics, proclitics, and enclitics (varying levels of syllable stress). Hugh Craig and Arthur F. Kinney use computation stylistics of lexical and function words to great effect; although they place an inordinate reliance on Brian Vicker’s work, they found Marlowe to be a more likely collaborator than Kyd in the _Henry VI_ plays. Stefan Daniel Keller’s brilliant study of rhetorical devices used in nine Shakespearean plays is the best of those that use the specific and structured use of figures as a method of attribution.

Most methods appear, ostensibly, to make good sense—quantifying a particular technique or pattern of Shakespeare’s writing and charting how similarly or differently other playwrights use the same technique or pattern. Vickers quotes six attributes that F. G. Fleay outlined in 1874 to distinguish Fletcher’s work: Fletcher uses more feminine endings; more end-stopped lines, particularly with feminine endings; moderate use of rhyme; moderate use of short lines; no prose whatsoever; and regularly either elides words to squeeze the line into iambic pentameter or creates alexandrines (lines of six feet/twelve syllables). By quantifying, for instance, the average number of feminine line endings per play, Fleay claimed he ‘conclusively’ separated the works of Fletcher, Massinger, and Shakespeare. Eighty years later Cyrus Hoy’s method using variant forms of _ye, bath, and ‘em_ overlapped some of Fleay’s findings but contradicted others.

14 Marina Tarlinskaja, _Shakespeare’s Verse._
17 Vickers, _Shakespeare, Co-Author_, pp. 47–49.
Metrical, lexical, linguistical, rhetorical, morphological-orthographical, imagistical, syntactical—the sweeping variety of methods would be useful if the results were consistent. But over the past 100 years, to relate just one example, authorship attribution studies have ‘proven’ that Edward III was written by George Peele alone; Christopher Marlowe with George Peele, Robert Greene, and Thomas Kyd; Thomas Kyd alone; Michael Drayton; Robert Wilson; William Shakespeare alone; William Shakespeare and one unknown other; William Shakespeare and Christopher Marlowe; William Shakespeare and several others, excluding Marlowe; and most recently and very specifically Thomas Kyd (60 percent) and William Shakespeare (40 percent). 18

One outstanding voice of reason in the morass of authorship attribution studies is Joseph Rudman from Carnegie Mellon (whom Vickers never cites). His working bibliography in 1998 contained well over 600 books and articles, and this does not include references to specific kinds of expertise such as those relating to time period, genre, language, etc. Speaking of the ‘non-traditional’ studies (those that utilise computers) or ‘experiments’, as he sometimes calls them, Rudman remarks:

Non-traditional authorship attribution studies . . . have had enough time to pass through any “shake-down” phase and enter one marked by solid, scientific, and steadily progressing studies. But, after over 30 years and 300 publications, they have not. . . . There is more wrong with authorship attribution studies [both traditional and non] than there is right. 19

Rudman calls for standards, a unified methodology, educated gatekeepers, and peer conferences to regulate the burgeoning discipline. He recognises, however, that what will more likely happen is a continuation of a flawed process where ‘the practitioners agree that there are problems—but not with their own studies’. 20

Into this imbroglio of authorship attribution, this paper proposes yet another way of quantifying Shakespeare’s metrical technique. Why would one want to do that? Perhaps this quote from Anthony Kenny may suffice as a partial explanation: ‘My excuse for being undeterred by this [problem of being underqualified in a quagmire of authorship attribution] is the fact that most of those working in the field of literary statistics are also, in one or other respect, novices, or, as they would no doubt prefer to put it, pioneers’. 21 Also, it is not expected in this short essay that a definitive solution or method can be developed and presented, or even that this particular method would ever lead to one. But since the field is still ungoverned and chaotic, it is not amiss to attempt something new, that of examining the possibility that when verse is presented visually,
different writers present different patterns. It may be one thing to claim with complex and potentially spurious statistics that Nashe wrote the first act of _Henry VI_, but another to display the visual patterns of the two writers for all to see and thus (possibly) to clearly and immediately appraise the similarities or differences.

The reason the metrical pattern can be visualised is that the predominant literary style of Elizabethan/Jacobean plays was blank (unrhymed) verse in iambic pentameter. The basic line is a measure of five feet ( _penta meter_), each foot consisting of one _iamb_. An iamb is two syllables with an emphasis on the second beat, ba BUM. The _ictus_ is where the stress is supposed to fall, metrically, which means in an iambic line of ten syllables, the ictus is every ‘even’ syllable (in the second, fourth, etc. positions). Thus a line of iambic pentameter, when the stress lands on the ictus, sounds like five heartbeats: ba BUM ba BUM ba BUM ba BUM ba BUM. Because not all syllables in a line of poetry receive the same amount of stress, the resulting pattern is a function of the spoken language and creates the _rhythm_ we hear when a line is spoken according to the stress/ictus interaction.

When the stress does _not_ fall on an ictus, there might be three reasons: 1) the writer was not duly trained to write within the metrical pattern; 2) the writer did not take the time to find words that fit the metre precisely; or 3) the writer intentionally chose to syncopate some of the words to manifest an emotional state. Elizabethan writers use the metre and rhythm interaction with varying levels of success. Shakespeare regularly disrupts the metre for specific purposes, generally to indicate emotional states of the characters; other (lesser) writers tend to mangle the metre arbitrarily or use it monotonously, as shall be shown in the charts below.

In the formal study of metrical analysis, linguists and metrists use a variety of symbols to designate how the stress is applied to the various syllables (including intermediate emphases), such as —/—, W/S, w/s, ˘/`, ˇ/`/´, and others. Each of these systems adds another layer of technical mental calculation to the poetry that is one of the stumbling blocks preventing more literary scholars from bridging the gap from poetics to metrical analyses, as lamented by Dresher and Friedberg.

At its simplest level, the basic metre can be displayed graphically with two colours:

```
had I but DIED an HOUR beFORE this CHANCE
```

---

24 All quotations are from the First Folio unless mentioned otherwise, and maintain the spelling, punctuation, and capitalization found there.
In this way, these lines from Orsino’s opening speech appear very consistent, a perfect pattern of the iambic pentameter metre and rhythm (spirit is spoken as one syllable):

```
O SPIRIT of LOUE, how QUICKE and FRESH art THOU,
That NOT with STANding THY caPaciTIE,
reCEIUeth AS the SEA. Nought ENters THERE,
of WHAT vaLIDitY, and PITCH so ERE,
but FALLES inTO aBATEment, AND low PRICE
```

In creating lines of iambic pentameter, the more skilled Elizabethan/Jacobean writers developed a variety of methods to prevent the lines from becoming litanies of monotonous orations. For instance, one might start a line with a trochee, a foot with a beat just the reverse of an iamb: bum ba. Or one might use a spondee, a foot with two equal beats. Or a dactyl, a three-syllable foot with one strong beat followed by two short ones: bum ba ba. Examples of these feet:

- iamb: upon the place up ON the PLACE
- trochee: William Leahy WILL iam LEA hy
- spondee: well-loved WELL LOVED
- dactyl: Barbara BAR ba ra

A writer might also add an eleventh syllable, always on the downbeat, called a feminine or double ending. Graphically it can be shown with a lighter shade of the regular downbeat:

```
to BE, or NOT to BE, that IS the QUEStion:
WHEther ’tis NObler IN the MINDE to SUFFer
the SLINGS and ARRowes OF outRAGIous FORtune,
```

One can see in the example above that Shakespeare starts the second line with a trochee; this interruption combined with the feminine endings creates a more sophisticated and less predictable sound, becoming less patterned and more speechlike. In these three short lines, we can see the soft ending on a line combined with the soft beginning of the next line, a trochee in the middle, the short pauses from the two commas in the first line, but no pause at all after the second line. This is a master in charge of the iambic pentameter line.
A recent theory regarding Shakespeare’s metrics has been developing through the work of directors teaching actors how to speak Shakespeare’s verse by using the First Folio or appropriate Quarto editions of the texts to get as close as possible to the author’s intent in phrasing, punctuation, and rhythm of the lines, understanding the possible inconsistencies added by scribes and compositors. Their work indicating that Shakespeare regularly controls the variation in the metre and the resulting rhythm to create a desired emotional charge unwittingly confirms Dorothy Sipe’s earlier meticulous study of variant forms of words that Shakespeare chose in various contexts (such as *bide* and *abide*) that clearly indicate Shakespeare makes a priority of metrical consideration. A close look at several examples, below, exemplify this use of metre. (The blue text indicates where an actor or reader must *elide* two syllables into one.)

| The qualitie of mercie is not straind, it droppeth as the gentle raine from heauen |  
|---------------------------------------------------------------|---------------------------------------------------------------|
| it vpon the place beneath: it is wise blest, it blesseth him that giues, and him that takes, tis mightiest in the mightiest, it becomes the thronèd Monarch better then his crowne.  |  
| His scepter showes the force of temporall power, the attribut to awe and maiestie, vwherein doth sit the dread and feare of Kings: but mercie is aboue this sceptred sway, it is enthronèd in the harts of Kings, it is an attribut to God himselfe; and earthly power doth then show likest gods vhen mercie seasons iustice: therefore Iew, though iustice be thy plea, consider this, that in the course of iustice, none of vs should see saluation: we doe pray for mercy, and that same prayer, doth teach vs all to render the deedes of mercie. I haue spoke thus much to mittigate the iustice of thy plea, vvhich if thou follow, this strict Court of Venice must needes giue sentence gainst the Merchant there.  |

In Portia’s mercy speech, it is easy to see what a smooth, calming, rhythmical delivery is expected. The few feminine endings and mid-line caesuras (pauses in the middles of lines, indicated by the punctuation and the black bars) prevent the text from becoming predictable and static. Compare this to an introduction by Nathaniel Richards to Thomas Middleton’s play, *Women Beware Women*, shown below.

---


27 These examples use Q1, the edition most editors prefer and the one used in the Arden edition of *The Merchant of Venice*, ed. by John Russell Brown (London: Arden Shakespeare, 2006), p. xx.
Richards seems to understand that a line must have ten syllables, but is unaware of (or is not concerned with or perhaps incapable of handling) the importance of the metre and its resulting rhythm. The visual sloppiness of his text is apparent, and the disturbed rhythm has no emotional affinity with the text.

Shakespeare creates disturbed metre as well, but it always has a purpose. Consider Lear’s line with dead Cordelia in his arms:

\[
\text{Never, Never, Never, Never, Never.}
\]

The line is completely counterpoint (metrists would call it a 'headless' line with a feminine ending). It would have been simple enough for Shakespeare to add the letter O at the beginning of the line to create a perfect iambic pentameter line with a feminine ending; instead, the obvious syncopation provides an emotional clue to the actor/reader. This is particularly interesting when seen in combination with the other lines, as shown below—it is as if this is the moment, this line, that Cordelia’s death finally dawns on Lear, overwhelmingly and irretrievably. The bullets to the left of some lines indicate monosyllabic lines. Shakespeare often uses monosyllables to slow down the spoken rhythm because it is more difficult to speak ten individual words than several multisyllabic words, such as the multitudinous seas incarnadine. The technique is easy to mark in a visual system and may be something worth tracking.
Below is Shylock’s speech to Antonio after Bassanio has (unbeknownst to Antonio) asked Shylock for a loan. Using Shakespeare’s metre and the rhythms resulting from punctuation, caesuras (several of which occur unusually close to the beginnings or ends of lines, rather than near the middle), an unexpected alexandrine, and a short line, an actor can clearly see at what points in the text the playwright expects the most disturbed emotion from Shylock. (The pale red cells at the ends of several lines indicate *dactylic* line endings, a rare technique, according to Tarlinskaja,

One might expect Shylock’s final and short line to be picked up immediately by the next speaker, but it is not. A significant pause seems to be expected. In this case, the next speaker is Antonio. With the pause, Shakespeare apparently gives Antonio a moment to collect himself, and his next words are coldly even-tempered:

---

With a visual system, it becomes clear to see how Shakespeare has a particular mastery over the iambic pentameter line: the metre that creates the line, the stresses that create the speaking rhythm, the end-stopped lines (punctuation at the end), enjambed lines (those that run on), mid-line caesuras, feminine endings, monosyllabic lines, elisions, dactylic line endings, short lines, and extrametrical lines. It is simple to add to any chart other features that have been shown to be used by varying degrees by various writers of the time, and thus to compare them. This visual system can include rhyme, the sonnet form, prose, pauses, shared lines, sentence length, soliloquies, and the interactions between prose and verse and rhyme. The ‘data’ can immediately be compared with the text to determine the interdependence, if any.

To create these charts, strict parameters had to be developed and adhered to as there can be great disagreement over where the emphasis in a Shakespearean line should be placed. In this famous line of Hamlet’s, the natural rhythm of the iambic pentameter places an emphasis on the word “is”:

```
 to BE or NOT to BE, that IS the QUESTION
```

However, some believe the actor should place an emphasis on “that”:

```
 to BE or NOT to B E, T HAT is the QUESTION
```

Adrian Noble, Artistic Director of the Royal Shakespeare Company from 1990 to 2003, scans this line from the Chorus of Henry V with the emphasis on the first syllable, creating a trochee:

```
 (LEASHT in, like H OUNDS) shoul d FA mine, S WORD, and FIRE
```

This is typical of many commentators, to automatically assume that a larger and perhaps weightier word such as “leasht” should be emphasised. But if one first follows Shakespeare’s metre to see where the emphasis naturally lands, one can often discover a surprising force where one does not expect it. In the line above, the iambic metre naturally places the emphasis on “in,” and if a reader or actor pushes that emphasis, the result is a stronger feeling of the containment, rather than the image of a leash.

```
 (Leasht IN, like H OUNDS) should FAmine, SWORD, and FIRE
```

29 Adrian Noble, How to Do Shakespeare (Abingdon, Oxon: Routledge, 2010), p. 54.
Similarly, note the difference between the often assumed reading of the first line of *Richard III*:

```
NOW is the WINTER of our DIScontent,
```

And a reading that follows the iambic metre:

```
now IS the WINTER OF our DIScontent
```

One can make a case that the emphasis, based on Shakespeare’s creation of the line, should be on the word *is*, not *now*. In line 12 of this speech, the line begins, ‘And NOW . . .’, indubitably creating an emphasis on *now*. As George T. Wright points out regarding a similar small word such as *not*, ‘When the word appears in [an] unstressed position its negative idea is easily conveyed without undue emphasis . . . some modern actors frequently stress *not* or other negatives unnecessarily and in the process wrench the metre badly’.30 This is Shakespeare’s apparent preference:

```
you WOULD not THEN have PARTed WITH the RING
```

Also consider the iambic rhythm in Richard III’s line, ‘i AM not IN the GIVING VEIN toDAY’. Wright supports the decision to chart the given metre by describing how ‘sometimes one or more of a line’s strong beats will fall on a so-called minor syllable—say, a pronoun, preposition, conjunction, unemphatic verb, or a syllable of a longer word that normally receives only secondary stress,’ as in:31

```
‘My MISStress *WITH* a MONster IS in LOVE’
```

He recommends that a reader or actor speak those words naturally, and that ‘the lighter beat doesn’t radically affect our sense of an alternating rhythm through the syllables of the line’.32 In fact, ‘Speakers of English often stress minor words, especially when their speech has some urgency to it, and dramatic speech often does’.33 Harold Love confirms the ambiguity in that ‘there will frequently be more than one valid way of scanning any particular line: the actor or reader decides’.34

To this end, the decision was made to chart the metre where it naturally falls, rather than make subjective judgements as to which words ‘should’ be emphasised for one reason or another.

31 Actually, he’s describing when a ‘so-called minor syllable’ falls on an ictus, rather than vice versa.
This is a radical departure from any other metrical test, but for the purpose of building a record, the charts in this essay adhere tightly to Shakespeare’s written text: the emphasis displayed is on any word or syllable that fits the natural metrics of the line without distorting pronunciation. At any point, obviously, a reader/actor/director can choose to change the emphases, but those subjective possibilities are not recorded here. The result of this stricture creates charts that display Shakespeare’s metre as more consistent and methodical than most might interpret it, but by being extremely consistent with this restriction, the works of other writers will be more evenly comparable. These are the guidelines developed for the visual charts:

- Selected portions of plays are 60–90 lines. C.A. Langworthy used 500 lines of verse when studying the verse line as a metrical unit, which Brian Vickers describes as the most efficient, but that length is not possible in this short essay. (The ideal would be to view entire plays at a glance.)

- Red is a stressed syllable, yellow unstressed.

- The dactylic line endings use a paler shade of red in the tenth syllable cell.

- The feminine eleventh syllable is pale yellow.

- Vertical black bars mark caesuras only when the previous line is enjambed or when there is a full stop, a question mark, or a colon followed by a capital letter in the line. Thus whether a caesura is initial (near the beginning of a line), medial, or terminal can be seen at a glance. Whether a caesura is masculine (follows a stressed syllable) or feminine (follows an unstressed syllable) is also seen at a glance.

- Punctuation is marked in the individual cells (in case one wants to view these also as caesurae), except at the ends of lines where it is outside the cell. Thus end-stopped or enjambed lines are immediately apparent.

- Shared lines are indicated as shared only when they create a perfect line of iambic pentameter; that is, if the shared lines create extrametricality or a clearly dysfunctional line, they are not shown as shared. If lines are not shared, the empty spaces indicate either pauses or a writer who was not in command of his craft.

- Short lines are indicated by empty spaces at the end of the words, although the implied pause may be meant for the beginning of the line.

- Where an apparently insignificant word lands on an ictus, the word is highlighted in bold italic in the text; perhaps this is a feature to track.

- Black bullets at the beginnings of lines indicate monosyllabic lines; grey bullets indicate monosyllabic lines that include at the most one two-syllable word.

- Cells that indicate full rhymes are dark blue; assonant rhymes (moon/doom, dumb/tongue) are a paler blue.

---

Vickers, *Co-Author*, p. 307
• **Text in cyan** must be compressed to fit the metre. This includes words that today are normally two syllables but in Shakespeare's time were one (*hour, fire*) and those that are often compressed in verse (*heaven, power*, depending on the metre). Actors and rhetoricians call this *elision*; metrists call it *trisyllabic substitution*, or ‘the allocation of two syllables to one position in one of the feet’.36

• Conversely, words that have been expanded (epenthesis) are in orange. For instance, *passion* sometimes has three syllables (stretching out the *ion*) as can *marriage* and *ocean*. Kyd gives three syllables to *sapling* and four to *assembly*.

• **Prose** is variants of green, the darker green indicating naturally stressed words (although this essay is too short to explore visual prose).

A recommendation in looking at the following charts is to choose one or two features to notice individually, then move on to compare another set of features. For instance, a quick glance at the homogeneity—or not—of the general metrical pattern gives one instant impression. Then perhaps compare the punctuation at the ends of the lines, then the punctuation within the lines. How do the caesurae compare, where does rhyme typically fall, how many short lines are used? How often does a writer use a feminine ending or extra syllables in the line? How often does a writer need to elide or expand a word to make it fit the metre? On a combined textual/metrical/emotional level, is a disrupted rhythm (not only metre, but enjambed lines with caesurae, especially initial or terminal caesurae, or an unusual amount of commas with few periods) consistent with a disrupted emotional state of the character? Conversely, what does the metre look like for a character who is in a calm state of mind?

The first ninety lines of *1 Henry VI*, a disputed scene from an early play, is shown in Figures 1a and 1b; Figures 2a/b and 3a/b compare sections of the works of Thomas Nashe and Thomas Kyd. Both Nashe and Kyd have been proposed as collaborators with Shakespeare on *I Henry VI*, with claims that Nashe wrote Act 1. The initial but unmistakable differences in the visual representation of the works of all three writers make this hypothesis difficult to sustain. This does not mean Shakespeare did not have a coauthor; it merely means more work must be done to confirm the theories. As a comparison with Shakespeare’s later work, the first seventy lines from *Antony and Cleopatra* are shown in Figure 4.

---

Figure 1a. The opening lines from the first scene in I Henry VI are shown below and on the following page. Characters’ speeches are colour coded, and the shades within each speech indicate sentence length. Notice the play opens immediately with six trochees within nine lines. Where the metre is visually disrupted, check the text to see if it correlates in some way. As is typical with Shakespeare’s early plays, many lines are end-stopped.
Posteritie await for wretchéd yeeres,
When at their Mothers moistned eyes, Babes shall suck,
Our Ile be made a Nourish of salt Teares,
And none but Women left to wayle the dead.

Henry the Fift, thy Ghost I inuocate:
Prosper this Realme, keepe it from Ciuill Broyles,
Combat with aduerse Planets in the Heauens;
A farre more glorious Starre thy Soule will make,
Then Iulius Caesar, or bright — Enter a Messenger.

My honourable Lords, health to you all:
Sad tidings bring I to you out of France,
Of losse, of slaughter, and discomfiture:
Guyen, Champaigne, Rheimes, Orleance,
Paris Guysors, Poictiers, are all quite lost.

What say’st thou man, before dead Henry’s Coarse?
Speake softly, or the losse of those great Townes
Will make him burst his Lead, and rise from death.

Is Paris lost? is Roan yeelded vp?
If Henry were recall’d to life againe,
These news would cause him once more yeeld the Ghost.

How were they lost? what trecherie was vs’d?
No trecherie, but want of Men and Money.
Amongst the Souldiers this is muttered,
That here you maintaine seuerall Factions:
And whil’st a Field should be dispatcht and fought,
You are disputing of your Generals.
One would haue lingring Warres, with little cost;
Another would flye swift, but wanteth Wings;
A third thinks[th], without expence at all,
By guilefull faire words, Peace may be obtayn’d.
Awake, awake, English Nobilitie,
Let not slouth dimme your Honors, new begot;
Cropt are the Flower-de-Luces in your Armes
Of Englands Coat, one halfe is cut away.
Were our Teares wanting to this Funerall,
These Tidings would call forth her flowing Tides.
Me they concerne, Regent I am of France:
Giue me my steeld Coat, Ile fight for France.
Away with these disgracefull wayling Robes;
Wounds will I lend the French, in stead of Eyes,
To wepe their intermissiue Miseries.

Enter to them another Messenger.
Visual metre as an authorship attribute

Robin Williams

Figure 2a. Below and on the following page are sections from the only play written by Thomas Nashe, A Pleasant Comedy, Called Summer’s Last Will and Testament, printed in 1600. The contrast shown between Shakespeare’s sophisticated use of metre, even in such an early play as 1 Henry VI, and of Nashe’s more consistent and unemotional metre is striking. Note also the random rhymes (purple).
So those word-warriors, lazy star-gazers, 
Vsde to no labour, but to lowze themselues,
Had their heads fild with coosning fantasies,
They plotted how to make their pouertie,
Better esteemde of, then high Soueraignty:
They thought how they might plant a heauen on earth,
Whereof they would be principall lowe gods,
That heauen they called Contemplation,
As much to say, as a most pleasant slouth,
Which better I cannot compare then this,
That if a fellow licensèd to beg,
Should all his life time go from faire to faire,
And buy gape-seede, hauing no businesse else.
That contemplation like an agèd weede,
Engendred thousand sects, and all those sects
Were but as these times, cunning shrowded rogues,
Grammarians some; and wherein differ they
From beggers, that professe the Pedlers French?
The Poets next, slouinly tatterd slaues,
That wander, and sell Ballets in the streetes.
Historiographers others there be,
And the like lazers by the high way side,
That for a penny, or a halfe-penny,
Will call each knaue a good fac’d Gentleman,
Giae honor vnto Tinkers, for good Ale,
PREFERre a Cobler fore the Black prince farre,
If he bestowe but blacking of their shooes:
And as it is the Spittle-houses guise,
Ouer the gate to write their founders names,
Or on the outside of their walles at least,
In hope by their examples others moou’d,
Will be more bountifull and liberall,
So in the forefront of their Chronicles,
Or Peroratione operis,
The learnings benefactors reckon vp,
Who built this colledge, who gaue that Free-schoole,
What King or Queene aduauncèd Schollers most,
And in their times what writers flourished;
Rich men and magistrates whilst yet they liue,
They flatter palpably, in hope of gayne.
Smooth-tounge Orators, the fourth in place,
Lawyers, our common-wealth intitles them,
Meere swash-bucklers, and ruffianly mates,
That will for twelve pence make a doughtie fray,
Set men for strawes together by the eares.
Skie measuring Mathematicians;
Golde-breathing Alcumists also we haue,
Both which are subtill witted humorists,
That get their meales by telling miracles,
Which they haue scene in trauailing the skies,
Men that remouèd from their inkehorne termes,
Bring forth no action worthy of their bread.

Figure 2b. This second piece is from the middle of Nashe’s play. There is a little more flexibility in the rhythm, but it is generally arbitrary and does not have an emotional connection with the text.
Figure 3a. This selection from The Spanish Tragedy, attributed in 1773 to Thomas Kyd but not confirmed,\(^1\) shows a methodical slavery to the metre, as well as few caesuras and every line but the first end-stopped. Kyd’s only known work is Cornelia (a closet drama) and little more than a hundred lines of poetry.

---

\(^1\) In 1773, eighteen years after Kyd’s death, Thomas Hawkins ‘cited a passing reference in Thomas Heywood’s Apology for Actors (1612) to “M. Kid, in the Spanish Tragedy”’. Dictionary of National Biography, Thomas Kyd. The attribution is considered suspect because the performance and printing history of the play is relatively astronomical, more popular than anything by Shakespeare, and there are more than 100 contemporary allusions to the play, but aside from Heywood’s brief mention almost two decades later, Kyd and The Spanish Tragedy are never otherwise connected.
Figure 3b. Below is another selection from The Spanish Tragedy chosen from later in the play in the vain hope that the author might have grown a little more adventurous with the metre.

I tell thee Sonne my selfe haue heard it said,
When to my sorrow I haue beene ashamed
To answere for thee, though thou art my sonne,
Lorenzo, knowest thou not the common loue,
And kindenes that Hieronimo hath wone
By his deserts within the Court of Spaine?
Or seest thou not the K. my brothers care,
In his behalfe, and to procure his health?
Lorenzo, shouldst thou thwart his passions,
And hee exclaime against thee to the King,
What honour wert in this assembly,
Or what a scandale wert among the Kings,
To heare Hieronimo exclaime on thee.
Tell me, and looke thou tell me truely too,
Whence growes the ground of this report in Court.

My L. it lyes not in Lorenzos power,
To stop the vulgar liberall of their tongues:
A small advantage makes a water breach,
And no man liues that long contenteth all.

My selfe haue seene thee busie to keep back,
Him and his supplications from the King.
Your selfe my L. hath seene his passions,
That ill beseemde the presence of a King,
I helde him thence with kinde and curteous words,
As to my soule my Lord.
Hieronimo my sonne, mistakes thee then.
My gratious Father, beleeue me so he doth,
But what a silly man distract in minde,
To think vpon the murder of his sonne:
Alas, how easie is it for him to erre?
But for his satisfaction and the worlds,
Twere good my L. that Hieronimo and I,
Were reconcile, if he misconter me.

Lorenzo thou hast said, it shalbe so,
Goe one of you and call Hieronimo.
Figure 4a. Below and on the following page are the first seventy lines of Antony and Cleopatra, a later play. One can see the development of the flexibility in creating the rhythm. As always, the interconnection between the text, rhythm, and emotion is apparent.
Excellent falsehood:

Why did he marry Fulvia, and not love her? He seeme the Foole I am not. Anthony will be himselfe.

But stirr’d by Cleopatra.

Now for the loue of Loue, and her soft hours, Let’s not confound the time with Conference harsh; There’s not a minute of our liues should stretch Without some pleasure now. What sport to night?

Heare the Ambassadors.

Fye wrangling Queene:

Whom euery thing becomes, to chide, to laugh, To weep: who euery passion fully strues To make it selfe (in Thee) faire, and admir’d. No Messenger but thine, and all alone, [to night]' Wee’l wander through the streets, and note The qualities of people. Come my Queene, Last night you did desire it. Speake not to vs.

Exeunt with the Traine.

Is Caesar with Anthonius priz’d so slight?

Sir sometimes when he is not Anthony, He comes too short of that great Property Which still should go with Anthony.
There are several deterrents to the use of this method in attributing authorship. Metrics is only one piece of the dramatic writing puzzle, and comparing the metrics is only potentially useful when comparing works in similar metres. Although all Elizabethan and Jacobean playwrights use iambic pentameter in their plays, this visual method eliminates the possibility of recognising possible coauthors whose only known work is prose. Also, to be useful, the visual results must be statistically quantified. To say, ‘This looks like Shakespeare’ or ‘This does not look like Shakespeare’ is no more defining than the time-honoured but ultimately unprofitable, ‘That sounds like Shakespeare’ or ‘That does not sound like Shakespeare’. This visual method, if useful for attribution at all, can probably go no further than indicating a work is Shakespeare’s style or it is not. Even that must take into account how radically Shakespeare’s style changed over time, on all levels and in different genres. As Keller displays in one of his many charts, shown below, of Shakespeare’s use of one particular rhetorical device, ‘There are considerable differences in frequency between plays composed within short periods of each other, showing how flexibly Shakespeare was responding to the demands of different plots or constellations of characters’.37

![Figure 3.2 Anadiplosis in nine Shakespeare plays (instances per thousand lines).](image)

In the same way that Shakespeare explored the use of different rhetorical devices in individual plays, he experimented with various ways of using the metre, as can be superficially seen by comparing Figures 1a/b and 4a/b.

On the other hand, this visual method does provide a variety of features at a glance, as Love insists, ‘It is only by recognising a number of characteristic features of style present in combination that we can have any kind of security in a judgement’ [italics are Love’s].38 This paper provides only very small test portions of a few works; it remains to be seen whether expanding the process might tell us more. For instance, although the amount of rhyme varies tremendously throughout the canon, Shakespeare uses it in very specific ways, and this visual presentation can easily track rhyme schemes. Although there are four Shakespearean plays with no prose at all (meaning we can’t use a lack of prose as an attribute pointing toward another author), Shakespeare’s prose is often highly patterned, and it may be seen that it looks significantly different from that of other writers. If an

37 Stefan Daniel Keller, *The Development of Shakespeare’s Rhetoric*, p. 44.
entire act (or an entire play) could be seen at a glance, the interactions between prose and verse might signify something heretofore unnoticed; or we might see that Shakespeare maintains the metre between shared lines differently from other playwrights; or parallels, juxtapositions, and segues between scenes might display noticeable patterns. At the very least, a wall chart of an entire Shakespearean play would be a remarkable piece of art, a sort of *ecphrasis*, or graphic/artistic depiction of another work of art.
Bibliography


*Dictionary of National Biography*, Thomas Kyd


Hall, Peter, *Shakespeare’s Advice to the Players* (2003)

Hanson, Kristin, ‘Shakespeare’s lyric and dramatic metrical styles’, *Formal Approaches to Poetry: Recent Developments in Metrics*, ed. by B. Elan Dresher and Nila Friedberg (Berlin, New York: Mouton de Gruyter, 2006)


Malvern, Jack, interviewing Brian Vickers, ‘Computer program proves Shakespeare did not work alone, researchers claim’, *Times Online* <http://entertainment.timesonline.co.uk/tol/arts_and_entertainment/stage/article6870086.ece>


