

# SHAKESPEARE IN THE SADDLE

*Previously unsuspected circuits of  
long rides:  
two in England, of course. Others?  
In Italy*

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## Dedication:

*To Barbara Adams Mowat (1934-2017), who began her career in mathematics, edited authoritative Shakespeare editions, and eventually served as Director of Research at the Folger Shakespeare Library. RIP Barbara.*

Shakespeare is better-traveled than many scholars will concede. This conclusion follows from several strands of research presented in this paper. Forming a loop or circuit ridden at least twice, four previously unknown equestrian journeys are inferred in England, the fourth of the four found not only to be specific in detail and nature but also intelligible to forensic examination. In addition, a number of long rides in Italy are suspected – within the contours of Italy's map as extant today. Finally, a clear and enlightening relationship exists between the generational time-setting of the bulk of Shakespeare's plays and the Italian vs British Isles geographic setting accompanying each play.

The newly exposed travels brought to light in this paper were either on horseback or, in at least one case, water-borne. On land, long distance treks in Shakespeare's day were generally via horseback with intermittent periods of rider-led walking to rest the horse. The pre-eminent authority on horses contemporary to Shakespeare's day is Anthony Dent.<sup>1</sup>

According to two independent lines of inquiry to be introduced in this paper, Shakespeare's travels in England included a specific long ride, from and to specific locations, leaving and arriving on specific dates, within narrow margins of error. When independent lines of

evidence cohere one with another, as the authors submit arises here, historiographical insight shines at its brightest.

Serendipitously, subtle signs for this long ride in England follow from the location and date on which Shakespeare and Anne Hathaway applied for their wedding license. While six garden-variety attempts to conjecture this date from the known facts in the record miss their mark by weeks if not months or years, a seventh attempt which assumes Shakespeare's identity with an individual named three places in a contemporary testamentary will of Lancashire elegantly produces a "guess" mere hours off the mark, improving upon all other attempts by an order of magnitude – times three.

A mere assumption by no means can be counted upon to produce a result as striking as *triple an order of magnitude* improvement over any other known alternative to the same conjecture – particularly if the assumption is false. Evidence positively favoring that the individual and Shakespeare are in fact one and the same individual, rather than merely "assumed" the same, emerges as the product of a mathematical-statistical probability technique. Although this technique dates back to and has been refined from the 1960's, it has yet to be applied specifically to the question of this particular century-old controversy in Shakespeare biographical research. The technique, called **probabilistic record linkage**, has been deployed by governments across the world for their official statistics and census-related products.<sup>2</sup> Current results from this ongoing, first ever application of probabilistic record linkage to the question whether Shakespeare and the other individual are the same person, albeit hindered by limited context, substantiate – as of the date of publication – the impression that the assumption is fully warranted.

Although only tentative findings from the ongoing probabilistic record linkage will be introduced here, findings that could change, this paper primarily explores evidence for Shakespeare's lengthy travels, in England but to a significant degree as well in Italy, especially by means of the principal mode of travel available to his generation: the horse. Uniquely excluded from these investigations are Shakespeare's travels as an actor on tour, which are better addressed elsewhere in the literature.

While Shakespeare traveling by horseback in his native England may seem the more humdrum and insignificant, the lesser of the two geographic claims, in comparison to the claim he traveled in Italy which may chafe as something rather cheeky if not positively reckless: the facts point in the contrary orientation. Forceful evidence not only for Shakespeare travelling in England by horseback theoretically, but strikingly for this travel especially on a *specific* long ride on *specific* calendar dates on a mission serving Shakespeare's known life will for the first time be introduced. Corollary to the specific ride emerge three logically suspected additional long rides at earlier dates along the same circuit of travel. Nevertheless, before combing through evidence re England, the scholarly instinct to balk at the claim that Shakespeare ever traveled on Italian soil at all necessitates a more immediate, and vigorous, response.

Demonstrative proof, in fact, that Shakespeare sojourned in Italy is secured in Roe's *The Shakespeare Guide to Italy*.<sup>3</sup> The author, and allies quoted especially in the opening texts of the book – lamentably – taint themselves from the start as anti-Stratfordian, meaning they (mistakenly) maintain that someone other than Shakespeare of Stratford wrote the canon of tomes attributed to him, as in someone better educated and more intimate with, and perhaps one of, the nobility. The anti-Stratfordian tone, meme, or refrain, that Shakespeare of Stratford, the actor, could not have written the plays, emerges (*i*) in the Foreword by Roe's daughter, (*ii*) in multiple places of the Introduction by Daniel Wright, and (*iii*) at least twice in Roe's own Preface<sup>4</sup> and amply argues for why scholars pass over Roe's otherwise important book. These unfortunate facts explain the reluctance of many scholars to take Roe seriously. Nevertheless, with this beginning, author and allies crow about chapter after chapter of proof that Shakespeare spent time physically on-site in Italy because, so they insist, the poor, uneducated Stratford-born actor could never have managed this.

However, the traditional English religious upbringing of Shakespeare (traditional on the scale of centuries, not decades, of English history),<sup>5-7</sup> combined with the newly-minted Oath of Supremacy (Anglican decree that the monarch of England supersedes any other earthly spiritual authority)<sup>8</sup> which was required of any student to graduate from either of the domestic universities,<sup>9</sup> meant he and his family were mired in the thick of a quagmire of reasons to send him abroad to Europe for at least some education beyond grammar school, especially if his exuberant intelligence were already manifest to those who knew him in his childhood.

As it stands, if, instead of neglecting or dismissing Roe's book as the product of eccentrics or conspiracy theorists, one sets aside its outward framework as nothing more than a misappropriated setting in which the book's author and his allies outlandishly exhibit the book's core findings relating places, histories, genealogies, and events in Italy to the playwright's specific writings, then *the remainder of the book, its core content, becomes compelling notwithstanding*.

If one holds one's nose, as it were, dismounts Roe's core findings from their ungainly setting, and instead examines only the content, one can carefully and fruitfully extract a highly competent exercise of forensic investigation worthy of a high stakes court case. This exercise elegantly fits the (centuries-scale) traditional religious setting for Shakespeare's family but continues to serve at best as perplexing baggage for the insupportable, obsolete Whig interpretation of English history.<sup>10</sup>

In the contents, Roe conducts an intensive, laborious, sober, and street-level comparison between each of ten of Shakespeare's plays set in Italy and the facts on the ground across a host of sites in Italy. His analysis results in findings of numerous, ubiquitous detailed correspondences, any one of which is improbable to be the product of mere book learning on the part of Shakespeare. The ten plays are *Romeo and Juliet*, *Two Gentlemen of Verona*, *Taming of the Shrew*, *Merchant of Venice*, *Othello*, *Midsummer Night's Dream*, *All's Well That Ends Well*, *Much Ado About Nothing*, *The Winter's Tale*, and *The Tempest*.<sup>11</sup>

For an example of Roe's analysis take *Romeo and Juliet*. In the chapter titled "Devoted Love in Verona," Roe points out how small details have the power to distinguish the merely book-learned from the travels-learned. Among such obscure details are groves of Sycamore trees, in Verona, near the western gates of the town, which Roe was able to physically track down in Italy and photograph. These clearly are not invented, nor are these details available in Shakespeare-era books available in England.<sup>12</sup> O'Reilly confirms how such details readily distinguish the genuine from the fraudulent Long Rider.<sup>13</sup>

Another obscure, but key, detail is Villafranca or "Freetown." While Shakespeare's sources never describe the site as old, Shakespeare, alone among tellers of the story, does.<sup>14</sup> He alone also characterizes it as a place of judgment, which Roe shows it to have been as well.<sup>15</sup>

*Romeo and Juliet* identifies a St. Peter's church in three distinct lines, the location where Juliet's forced wedding to Paris was expected to take place.<sup>16</sup> The particular St. Peter's Church exactly fitting the specifications of these standalone lines in the play is located by Roe on the ground. Especially interesting is that, because no actual wedding ever takes place at this planned location during the course of the play, no scene of *Romeo and Juliet*, despite Shakespeare's three-fold repeated mention of it, ever unfolds, and scholars otherwise, consequently, pay short shrift to the triple mention.

The fact of Friar Laurence's involvement means the church must be Franciscan. Roe finds this exact church, *San Pietro Incarnario* -- satisfying *all* the threefold specifications in the play.<sup>17</sup> Diocesan records state it was a parish church in 1302, and in the preceding century it "came under Franciscan jurisdiction and remained so for the next six hundred years." Moreover, it was located on the direct path between Juliet's house and Friar Laurence's monastic cell.<sup>18</sup>

Roe further investigates, on the ground in Italy, *Two Gentlemen of Verona*. *Two Gentlemen of Verona* contains the most references in all Shakespeare's canon, to "things Italian." At the same time, many of these references by Shakespeare have been dismissed as little more than the fabricated product of Shakespeare's overwrought imagination.<sup>19</sup> Are such dismissals warranted? Is this least in gravitas of Shakespeare's Italian-set plays an easy mark deserving of disdain? Specifically, has Shakespeare absent-mindedly envisioned an Italy with imaginary, literally *land-locked* seacoasts and "historical" events that never took place, referring to an "emperor" in Milan when its greatest nobility was merely a duke? According to these critics, no diligent person who ever spent time in those real locations of Italy could foul up so ineptly.<sup>20</sup> In fact-checking Shakespeare for these particular details, Roe takes as his precedent examples from *Romeo and Juliet*, where settings and events turn out consistently to be real and never fabricated.

Valentine, in Verona, speaks the lines, "Once more adieu! My father at the road/ Expects my coming, there to be shipped."<sup>21</sup> In this line, Valentine is sailing from Verona (an inland city) to Milan (another inland city) in a ship. In his day, Shakespeare uses the words "road" and "shipped" each in an unfamiliar way. The word "shipped" meant by vessel not overland. Yet both Verona and Milan are *inland* at a substantial distance from any sea. In

Act II, Shakespeare later sends Proteus as well on the same, seemingly preposterous, voyage.<sup>22</sup>

A variety of critics upbraid Shakespeare for supposing Verona and Milan to be seaports. The repeated word “tide” in Act II is assumed to imply salt water, when in fact Shakespeare means a special moment in time, and uses the word in puns. Launce explicitly specifies a river as the means for his voyage. Panthino expresses anxiety about losing the “flood.” Roe shows convincingly that the “flood” points not to a natural event but to the filling of a canal's locks connecting the Adige and Po rivers which are the “roads.”<sup>23</sup> This is established by then-extant canals, as shown in *Confine delle Stato Veneto coll. Eccleso Lungo il Fiume Tartaro* (published 1713).<sup>24</sup>

Roe discovers how, in *Midsummer Night's Dream*, the “Duke's Oak” is not a mere tree belonging to the Duke but a specially named, little known passageway in Athens.<sup>25</sup>

These are only a few sparse examples of Roe's rigorous, sober, unrelenting efforts to verify Shakespeare's sense of the factual reality in light of real locations extant in Italy during the time in which the story is set. Over and over again, Shakespeare passes the test and shows intimate knowledge of details that are improbable to have been learned from books of his day alone.

Nevertheless, Roe's haunting anti-Stratfordian compass flusters mainstream Shakespeare scholars enough that they see little point in entertaining his insights, much less to square the cogency of his arguments: accordingly, these purported travels of Shakespeare to Continental Europe are left off the table. Further, level scholarly comparison between verses in context from the plays and facts on the ground in Italy should be mounted and are welcome: unless these turn up something radically different from Roe, the weight of the evidence clearly corroborates Shakespeare having traveled in Italy. Between canal locks, rivers, and other bodies of water, ie. water-borne travel, during these various treks Shakespeare almost certainly traveled in many if not all of the following locations *on horseback*: Verona, Milan, Pisa, Padua, Venice, Sabbioneta, Florence, and Messina. Were these horses Calabrese, Maremmano, Neapolitan, Cavallo del Ventasso, or some other breed? During the early 1590's an Englishman, Fynes Moryson, travelled through Italy, among other European sojourns, and recorded, “For the horse of Italy, the race [of horse] of the kingdome of Naples is much prised, being vulgarly called Corsers of their swiftness ...”<sup>26</sup>

Recently, the formerly discredited view *that Shakespeare knew Italian sufficiently to receive direct insights and inspiration from Italian sources has started to gain traction among scholars*. This new appreciation for the scale and scope of Shakespeare's linguistic masteries is found in Jason Laurence's chapter of *Shakespeare, Italy, and Intertextuality* edited by Michele Marrapodi.<sup>27</sup> How does a Midlander learn Italian, never having traveled to Italy? Although Laurence emphasizes the dialogue manuals of Florio, he finally admits (page 94), “The evidence points to the conclusion that Shakespeare is familiar with both the foreign and native versions of his source, and that he knows both in the narrative and dramatic forms.”<sup>28</sup>

Italian is a language more likely to have been learned from travel than from an upbringing in mostly rural Warwickshire.

Turning to England, one easily speculates that horseback travels of Shakespeare *within* England stand on firmer ground. In Shakespeare's time, ground travel of any great distance inevitably required *one or several horses*.<sup>29</sup> Few accounts of these long rides are extant for anyone outside the royal elite, much less Shakespeare himself, to any scholar's dismay. Long rides in his day had become so routine that written preservation of detail is sparse.

Pertaining to Shakespeare's lifetime, two court cases unearthed in 2008 involve a fellow playwright of age quite close to Shakespeare's, whose works also have been compared favorably to Shakespeare's, more than any other's, only whose life was tragically cut much shorter. In these court cases a man by the name of Christopher Marlowe was a defendant.<sup>30</sup>

In the second of the two court cases, having leased a gray gelding, Marlowe evidently failed to return it, and possibly sold it.<sup>31</sup> This incontrovertible evidence that Shakespeare's most proximate contemporary colleague had custody of a horse reinforces the hope, if not expectation, that Shakespeare, too, will at some point be proven to have had custody of his own horse and no doubt used it for travel. This future date may be significantly sooner than expected once the findings of this our paper are understood.

Another piece of evidence has been recovered. Edmondson, Colls, and Mitchell (*Finding Shakespeare's New Place*) find archaeological evidence for a barn on the site of and during the era of Shakespeare's home purchased in 1597.<sup>32</sup> Were one or more horses accommodated in this barn? While conclusive evidence was not recovered in the excavations described by Edmondson, Colls, and Mitchell, certainly the existence of this barn increases the probability that Shakespeare himself owned, cared for, and employed horses in his travels.

A third indirect form of evidence for Shakespeare's alliance with horses is unearthed by Caroline Spurgeon, whose innovative inventory of Shakespeare's imagery (and also comparisons to his contemporaries' imagery) reveals, among other things, his empathy and fondness for the horse, his acclimatization to horses, and even his love for horses far eclipsing his relatively mute appreciation for dogs.<sup>33</sup>

Fortunately, this long overdue lamentable void in the literature connecting Shakespeare and horse travel on an exacting basis is on the cusp of change, in the pages of this article. Recently two discoveries have come to light from a watershed initiative called the Shakespeare Record Linkage Project (SRLP).<sup>34</sup> In recent years, this initiative set out to address a longstanding controversy simmering among Shakespeare scholars about the testamentary will of a spectacularly wealthy gentleman of Lancashire, England, named Alexander Hoghton (pronounced "Horton" according to locals). In 2015 two of its investigators came to England at the invitation of British scholars to conduct SRLP research *in situ*. One discovery emerges from a question asked specifically about a "money trail" among the evidence; another discovery emerges from the record linkage effort in general.

Before delving deeply into this important insight about Shakespeare traveling in England, let us first revisit and perhaps corroborate from a radically novel direction – independently of Roe’s – the claim that Shakespeare traveled in Italy.

In the canon of Shakespeare's works, at least 38 in number,<sup>35</sup> *HENRY VIII* marks the end of a series of stories geographically set in the British Isles whose time settings also fit together like beads on a string, as we shall see. Further stories, crossing in terms of setting into the very lifetimes of Shakespeare and his parents, are predominantly set in what is geographically today Italy.

In other words, *backward* from *HENRY VIII* in story settings time, the quantity of stories set in the British Isles is large and the quantity set in Italy is small. Using the language of probability, the probability for a story being set in the British Isles prior to the story setting of *HENRY VIII* is high and the probability for a story being set in Italy pre *HENRY VIII* is low. Conversely, *forward* from *HENRY VIII* in story settings time, the probability of the story being set in the British Isles is low and the probability of the story being set in Italy is high, precisely the opposite pattern.

Some plays are set neither in the British Isles nor in Italy. *MEASURE FOR MEASURE* is set in Vienna, a region one could call “Europe Aside from Italy.” *ANTONY AND CLEOPATRA* is set in Egypt, whose region one could well call “Other.” Even taking into account settings such as *Europe Aside from Italy* and *Other*, clearly, *HENRY VIII* sits at the cusp between two distinctly opposed attitudes on Shakespeare's part toward his life projects.

To appreciate the weight of this numerical change one should examine the **Table** at the end of this paper,<sup>36</sup> which can be summarized as follows. The numbers shown refer to the number of plays set as described divided by the total number of plays during the same time-span:

For stories set during the years AD 1000 – 1530 (preceding *HENRY VIII*, ie., older than Shakespeare’s parents’ births),

$$\text{Pr (setting Brit Isles)} = 10/15 \text{ or } 0.667$$

$$\text{Pr (setting Italy)} = 3/15 \text{ or } 0.200$$

$$\text{Pr (setting Europe aside from Italy)} = 2/15 \text{ or } 0.133$$

$$\text{Pr (setting Other)} = 1/15 \text{ or } 0.067$$

One should note that a few stories are set in a combination of locations.

For stories set during the years AD 1530’s – c. 1600 (later in time than *HENRY VIII*),

$$\text{Pr (setting Brit Isles)} = 1/10 \text{ or } 0.100$$

$$\text{Pr (setting Italy)} = 7/10 \text{ or } 0.700$$

$$\text{Pr (setting Europe aside from Italy)} = 2/10 \text{ or } 0.200$$

Pr (setting Other)

= 0 / 10 or 0.000

When thinking of the period spanning from his parent's birth through his own generation -- based on choice of setting, Shakespeare's mind seemingly takes some form of comfort and consolation in Italy. Why Italy? Roe's analysis, conducted on the very soil of Italy, although couched in anti-Stratfordian terms which the authors here explicitly reject, nevertheless strongly corroborates Shakespeare's lifelong fascination with Italy as a wide open gateway through which to drive (both on pen as well as on horseback) his life projects -- provided in most cases that their time settings correspond to his and his parents' generations.

On the other hand, when thinking of the period from his parents' births back into antiquity on history's timeline, as far back as settings of circa 1,000 A.D., Shakespeare's mind readily returns to his own native soil. Why earlier than his parents' births? The simplest explanation to both quandaries is the kingdom-wide tampering concerning religion first launched during Henry VIII's monarchy and extended throughout Shakespeare's own lifetime. Before then, as Clare Asquith says, England's soul had not yet fled or been exiled from its native land, and Shakespeare's, and the great majority of his countrymen's, ancestral religion was safe and secure.<sup>37</sup>

One might object to this line of reasoning, countering that possibly the time settings for Shakespeare's stories were often enforced upon him from outside, and only seldom the product of his own choosing. Maybe a patron, a paying client, or someone else besides Shakespeare was driving him to one particular time setting or another? Undoubtedly some of the plays indeed found their setting through some combination of factors external to Shakespeare himself on his own in this manner. The *MERRY WIVES OF WINDSOR* may fit this description (according to tradition, Elizabeth I directed Shakespeare to write this particular story).<sup>38</sup> However, one would expect such external pressures to be important more during the early phase of his career and to subside and be of reduced influence as his level of mastery and stature both mounted. It would be rather strange if his stories' settings were entirely at the whim of those paying his bills, even after his name meant something in theatre.

Then what do these *two clashing mental maps* of Shakespeare's story-telling tell us? Each play in its settings of time and place represent for Shakespeare a *major investment of his life energy and toil*. The more he focuses geographically on the British Isles and England in particular, the more paralyzed he seems at the thought of toiling to work out such a story within his and his parents' lifetimes -- an era launched when Henry VIII reinvented the religious landscape of his and his parents' forefathers in service to his infamous lust for certain women and continued when Elizabeth inherited her father's project.

During Shakespeare's and his parents' lifetimes, conversely, he seems invigorated by and warm to the thought of setting his stories geographically in Italy. Only when Shakespeare is able to properly distance himself from his and his parents' own lifetimes does he relent to setting his stories in the British Isles.

Were his energies harnessed in this way simply as a side-effect or direct consequence of book learning? Although it is remotely possible, the burden of proof lies on those who insist he learned of the details given by Roe from literature. Book learned insight and inspiration is not the hypothesis most easily reconciled with the facts, *neither Roe's careful analysis nor the story setting probabilities cited above.*

The twofold pattern, like a seesaw between England and Italy, suggests discomfort and pain regarding England post Henry VIII, and comfort and consolation regarding the displaced location of Italy during the same era. This pattern is most easily understood as evidence he himself became familiar with Italy not simply in book form but also, once more as laid out in Roe, through visits in the flesh there, taking respite from an oftentimes violent religious narrow-mindedness and in many cases persecution to the extent of hung, drawn, and quartered victims -- increasingly ubiquitous in his native England. These visits would inevitably have involved Shakespeare in further long rides on horseback – in not just one or two but several traverses across Italy.

Shakespeare's religion might mean little to today's scholars: certainly given the royal government's resort to gibbets and gallows during his lifetime, *to Shakespeare himself* its significance was as great as life or death.

## SHAKESPEARE IN THE SADDLE – ON ENGLISH SOIL

England, one hopes, presents scholars with better clues and better data.

The authors submit unto the reader's indulgence regarding how the following concern bears upon Shakespeare's riding of horses. It will eventually; please take our word for this.

An especially interesting challenge will turn out to be whether one can predict the date when William Shakespeare and his bride Anne Hathaway would wed, or apply for their wedding license. In the historic record, this date falls upon 27 November 1582.<sup>39</sup> As we shall see, the effort to meet this challenge turns out to be very insightful, especially regarding can it be established whether Shakespeare embarked on long rides, mounted.

There are several “garden variety” ways one can conjecture this particular date from the couple's circumstances, as follows.

1.) Identify the average age for a **bride** in Elizabethan England to wed. Trace this age as best as possible to Anne Hathaway's life. This date, or the closest approximation to it, is ESTIMATE I, conjecturing Shakespeare and Anne Hathaway's wedding license date from the known facts about the bride.

In Table 7.26 “Mean Age at first marriages” of Wrigley and Schofield's *Population History of England 1541-1871*, based on the earliest years shown, 1600 – 1649, years overlapping with much of Anne Hathaway's life – a bride's mean age was 26.0 years.<sup>40</sup> Anne Hathaway's gravestone indicates she died 6 August 1623, age 67 years old. Based on this information,

she was born between 7 August 1555 and 5 August 1556.<sup>41</sup> Any date of birth between these dates would correspond to the age of 67 on 6 August 1623 when she died. She reached 26, therefore, *between 7 August 1581 and 5 August 1582*. Guessing based on her age alone, one would expect her to wed between those dates if she were to marry on or close to the trend age. At this point, one has three options: one can identify the midpoint of those dates (discarding virtually every date except this midpoint), identify a confidence interval spanning the entire year-long range of dates, or compromise between these extremes such as discarding the “tails” or extremes at either end and identifying a more narrow confidence interval.

Taking the middle, compromise approach, we discard the partial month at each end as well as the first full month adjoining it. This leaves a nine-month confidence interval from 1 October 1581 through 30 June 1582, with the midpoint (just for reference) sitting in the middle of February. From *1 October 1581 through 30 June 1582* is ESTIMATE I. From the left hand side of the confidence interval to 27 November 1582 is  $274 + 150 = 424$  days or 14 months in error, while from the right hand side of the confidence interval to 27 November 1582 is 150 days or 5 months in error. So the ERROR interval for ESTIMATE I is (*14 months too early, 5 months too early*). If instead one were to use the midpoint, the ERROR would be about *9.6 months too early*.

Although many authors seem to depict Anne Hathaway as rather maidenly for a bride, her “elderliness” only has any pertinent meaning when compared relative to her husband William’s roughly eight years younger age. For a bride during the 1580’s, she was marrying mere months after the routine age for any other woman.

2.) Identify the average age for a **groom** in Elizabethan England to wed. Trace this age as best as possible to William Shakespeare's life. This date, or the closest approximation to it, is ESTIMATE II, another way of forecasting their wedding license date.

In the same table as cited for the bride, the average age for a bridegroom during the 1580's was 28.0 years.<sup>42</sup> William Shakespeare would not turn 28 until 1592. The estimated wedding application, in the case of ESTIMATE II, would be *9.5 years in error!* This guess is nearly ten times, or an order of magnitude, worse than the one based on the bride’s age.

3.) **Take the mean of the two dates**, ESTIMATE I and ESTIMATE II, to obtain ESTIMATE III.

The mean between the bride's version, ESTIMATE I, and the groom's version, ESTIMATE II worsens the error for the bride's considerably better estimate, which is not altogether bad, from around 9 months to a miserable  $4 \frac{1}{3}$  *years too late* (March 1587). Because of William's very young age at the wedding, the result is, once again, hardly constructive!

4.) Identify the **most popular wedding date of the calendar** during Elizabethan times. This conjecture is ESTIMATE IV.

Based on Figure 8.3 Seasonality of Marriages in Wrigley and Schofield's *The Population History of England 1541-1871*, for the 1580's, at the beginning of November in a given year were the most weddings, more than any other month in fact, and by the end of November the rate of weddings has fallen to about a third of the rate at the beginning.<sup>43</sup> This places the mean November wedding date at approximately 10 November, ESTIMATE IV. This conjecture is in error by  $27 - 10 = 17$  days. So far, based on crude error, this is hands-down the best available conjecture.

5.) Given that Anne Hathaway became pregnant by William Shakespeare *before* the wedding,<sup>44</sup> identify the **window of time** between her first certainty that she was pregnant and the season of the calendar when English canon law routinely declined permission for further weddings in the year to be scheduled. This “full stop” on weddings for that calendar year was enforced so that weddings did not eclipse the celebrations of Advent and the Twelve Days of Christmas. From this window of time, identify the median or midpoint.

As for the mother's certainty about being pregnant, using a reverse due date calculator, we can identify the approximate date of Anne's second skipped menstrual period at which point she could harbor no more doubts -- without modern clinical help -- of her pregnancy. The "no more weddings" season began 2 December 1582.<sup>45</sup> We will identify the middle date between the second skipped period and 2 December, to produce ESTIMATE V.

Below is a timeline to help understand the following calculation. According to a reverse due date calculator, as available online in various forms, assuming a date of birth for Susanna their firstborn within a few days prior to her baptism as English parishes then insisted, then Anne Hathaway's first two missed menstrual periods would have taken place, first through late-September, and second, through late-October. This indicates that the window of time from then until canon law ordinarily stopped 1582 weddings would have been the last week of October, the month of November, plus the one day of 1 December. The median or midpoint of these 38 days falls on or about 13 November 1582. ESTIMATE V, therefore, has an error of *14 days too early*. Definitely closer!

<b>Conception</b>	<b>1<sup>st</sup> Skipped Period</b>	<b>2<sup>nd</sup> Skipped Period</b>	<b>Median</b>	<b>Unseasonable</b>
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End of August → End of September → End of October → 13 November → 2 December

6.) Find the **mean between** the closest garden variety “too early” estimate (13 November 1582) and the closest garden variety “too late” estimate (March 1587). This is ESTIMATE VI. The mean between these dates is then Mid January 1584, an ERROR of *14.5 months too late*.

7.) For the purposes of this estimate only, *assume* Shakespeare and a man whose relevance will be clarified below, named *William Shakeshafte*, are one and the same individual and the long horseback ride with the annuity money of 11 November 1582 was connected to the wedding and specifically the wedding license. See details below. This is ESTIMATE VII.

METHOD OF CONJECTURING THE DATE	RESULT	CRUDE ERROR
1. Bride's Age	Between October 1581 and June 1582	5 months too early min, 14 months too early max
2. Groom's Age	1592	9+ years too late
3. Mean between Groom & Bride Ages	March 1587	4 $\frac{1}{3}$ years too late
4. Most Popular Date	10 November 1582	17 days too early
5. Median Between Twice Missed Menstrual Period and Season Blocking Weddings	13 November 1582	14 days too early (best of garden variety conjectures)
6. Mean between closest garden variety "too early" estimate (-14 days) and closest garden variety "too late" estimate (4 $\frac{1}{3}$ years ie., 52 months)	Mid January 1584	14.5 months too late
7. Shakespeare-Shakeshafte Long Ride Derived Estimate	27.5 November 1582	12 hours

Figure 2. Six "garden variety" attempts to guess the date of William Shakespeare's and Anne Hathaway's wedding license, in addition to a seventh attempt relying upon the assumption that William Shakeshafte and William Shakespeare are one and the same individual. Note that ESTIMATE VII is one order of magnitude better than any other – times three.

Notice that a conjecture making use of any information that takes for granted that Shakespeare and Shakeshafte are two different individuals misses the mark with an error in every case of at least 14 days. This discrepancy, in fact, may be thought reasonably close, considering that our attempt at the educated guess is cast from a distance of at least 437 years of history! It may be considered reasonably close, that is, until a conjecture accepting the assumption that Shakespeare and Shakeshafte are the same individual beats it by an anomalous factor of 28, that is to say,  $28 \times 12 \text{ hours} = 14 \text{ days}$ . The garden variety best estimate is *one entire order of magnitude worse – times three* – compared to ESTIMATE VII. This is a remarkable difference in error.

## HOGHTON AND HESKETH FAMILIES

While the facts relating Shakespeare and Italy leave enough room for critics wedded to outdated paradigms, particularly the Whig interpretation of English history, to continue to hesitate, what of the facts concerning Shakespeare's travels within England? Are insights more robust and definitive on Shakespeare's own home turf?

In 1860 a testamentary will from a family in Lancashire came to be published.<sup>46</sup> For several decades certain intriguing details in it remained more or less unnoticed, until about a century ago. At that time, a scholar realized that one of the wealthiest gentlemen of Lancashire during 1581 – namely Alexander Hoghton – was determined to send two named servants, one known to be connected to theatre, and the other whose name rings a bell even though no exact match for William Shakespeare, along with costumes and musical instruments, to a new “master” who will serve as a patron for theatre, as well as supply the two servants with life-long annuities.<sup>47</sup>

Existing Shakespeare scholars interested in sifting out whether the name mentioned in Alexander Hoghton's will could be Shakespeare at the young age of 17 (the actual name mentioned is “William Shakeshafte”) make the best of what they have, but their most sophisticated tool, authorship attribution, cannot be applied to the case in question because only the Shakespeare end-point makes available literary content – the Shakeshafte end-point offers zero literary content with which to apply the tool. Authorship attribution studies compare literary texts side-by-side for features in the hope to determine whether the same individual wrote them.<sup>48</sup>

The most prominent recent example of an attempt to resolve whether William Shakeshafte and William Shakespeare could be the same person is the 2017 article by Winstanley published in *Shakespeare Quarterly*. Winstanley painstakingly lays out a case against the connection between Shakespeare and Shakeshafte based on the Cottom of Lancashire and Cottom of Stratford evidence.<sup>49</sup> Taking this for a decisive rebuttal of the Shakespeare-Hypothesis, Winstanley is oblivious to the holistic record linkage project which in fact never links Cottom in any of its evidence at all. As in a criminal court case, showing that one particular article of clothing does not match from the accused to the culprit does not necessarily rise to a holistic effort to analyze all facts and all evidence connecting the accused to the crime. Winstanley's arguments are well taken but, in the end, irrelevant.

Literary scholars laud authorship attribution studies but, especially in a situation lacking any way to apply them, seem uninformed about record linkage studies, above all probabilistic record linkage studies. Probabilistic record linkage works not with literary content but with administrative and technical attributes of the end-point persons. In terms of raw materials, the methods of SRLP research and of authorship attribution studies have next to nothing in common. Their subject matters differ at a radical level.

Of course, one striking badge of distinction for authorship attribution studies is, of course, their venerable history dating back more or less to the times of Homer. Studies of this caliber and pedigree are thoroughly worthy and strive toward great rigor, but all invariably chew upon *literary content*. Literary content is, to be sure, richly available on the William Shakespeare endpoint; however, *zero* literary content is extant on the William Shakeshafte endpoint. In short, they can contribute nothing to the solution.

SRLP methods, on the other hand, have no interest in literary content: its business is primarily with the administrator who labels, files, or makes reference to people and content – not the content itself. From technical or administrative wrappings, rather than literary content, SRLP research aims to determine whether a servant mentioned in the testamentary will of Alexander Hoghton of Lancashire is likely to be William Shakespeare of Stratford-upon-Avon. Reasons to doubt their identity one with the other start, of course, with several *wrong* facets of the situation.

*First*, the mentioned servant is located in Lancashire, as opposed to Shakespeare’s home shire of Warwickshire, Shakespeare’s career headquarters of London, or at least the regions surrounding London and especially those between Stratford and London, such as Oxfordshire. Lancashire and Warwickshire are a rather long trek apart (about 135 miles) ; Lancashire and London are even more extreme in their distance apart (about 220 miles).

	Preston, Lancashire	Coventry	Stratford- upon-Avon	London
Preston, Lancashire		122	135	220
Coventry	122		20	100
Stratford- upon-Avon	135	20		100
London	220	100	100	

Figure 3. *Travel distances from Lancashire to Stratford, with appropriate intermediate stops shown, as well as London distances.*

*Second*, the servant’s name is wrong. His name is not “William Shakespeare” but “William Shakeshafte.” Surely this is a different person?

*Third*, the Preston Guild Rolls of 1582, local to the will’s genesis, enrolled several persons by the surname of Shakeshafte (none by that of Shakespeare) and two William Shakeshaftes. Surname Shakeshaftes evidently are scattered about the map of Lancashire.<sup>50</sup>

*Other reasons* can also be found to doubt the supposed identity between Shakespeare and Shakeshafte, such as the absence of any known reference by the Shakespeare family to the

Hoghtons, to family or business in Lancashire, or to anything specifically mentioned in Hoghton's testament.

On the other hand, during 21-23 July 1999, roughly three-fourths of a century after the hypothesis first surfaced, a world conference of Shakespeare scholars convened in Lancashire with an excursion to Hoghton Tower, both specifically chosen for this hypothesis and around a theme asking are these two men the same person (Lancastrian Shakespeare Conference).<sup>51</sup> This level of credibility for an hypothesis is seldom attained, except when the quiet, perhaps less popular, voices arguing in its favor seem to be scoring compelling points.

One such point in its favor is that this particular "incorrectly" named servant in the will is being ushered onward in the wake of his master's death to a new master who will accept *theatrical costumes* as well as *theatrical talent*. How like Shakespeare if the two are, to the contrary, somehow different persons! Turning from Shakeshafte to Shakespeare, Shakespeare himself entrusted his Globe Theatre's finances to *two particular gentlemen -- both of whom* had incontrovertible connections tracing back to a very specific spot on the map of Lancashire, namely Rufford.<sup>52</sup> Rufford is the location for the Heskeths – a "Plan B" patron for Shakeshafte according to Alexander Hoghton's will.

Other reasons to take the claim seriously can be unearthed from the history of the specific families involved, but so can reasons to dismiss it. Hardly any method competes, of course, with a discipline literally dating back to the days of Homer! Perhaps to the amazement of authorship attribution scholars, even this formidable admission falls short of trouncing the stature of record linkage. In every instance when in the history books a clerk, clutching one record in one hand, ever reached for a "matching" record elsewhere, that clerk was practicing a form of record linkage. Hence, record linkage, at its roots, in its manual form, has *also* been practiced manually hundreds *if not thousands* of years. *Probabilistic* record linkage method, as exploited in SRLP, represents an *elegant refinement and extension* to manual record linkage, nowadays underpinned by computers, employed profitably at many upper echelons of *official governmental research institutions throughout the world* – the world including the headquarters of the U.S. Census Bureau where one of the SRLP worked recently for 15 years. These refinements and extensions to record linkage alone now extend back at least half a century. Regular users of probabilistic record linkage include law enforcement officials, as well as researchers in many fields whose disciplines depend on rigorous, exacting technical precision. Until the SRLP, no scholar has applied this method to the Shakespeare-Shakeshafte hypothesis.

To help clarify which authorities are more pertinent to which issues, authorship attribution studies examine the *contents of literary texts* and hence face the daunting task of proving or disproving a particular author's role in writing the text, in the face of the fact that imitation constitutes a ubiquitous staple for writers of literary content. Record linkage *does not face this onerous burden* because it deals not with literary content but with *administrative and accessory records* which bear no "literary" content or even pretense for literariness whatsoever. These records are purely *technical content*, not literary content.

Today, the literature is fast approaching the *centenary of controversy raging in Shakespeare biographical studies* concerning the Shakespeare-Shakeshafte hypothesis. The method of probabilistic record linkage is eminently if not uniquely qualified to put the affair to rest. *Without probabilistic record linkage, or the equivalent of a smoking gun in the historical record, hope for a resolution seems meager.*

What is probabilistic record linkage? Probabilistic record linkage (i) digests a series of technical, non-literary resemblances between the two parties – more such avenues of resemblance is generally preferable to fewer -- including the resemblances between name, occupation or work task for a patron, etc., and (ii) estimates the probability of a matched identity between the two parties.

<b><u>Avenue of Resemblance</u></b>	<b><u>TENTATIVE PROBABILITY OF CHANCE RESEMBLANCE*</u></b>
Name in its <i>in situ</i> Setting (1)	Prob < 0.05 <i>Very low</i>
Work Task for a Patron (2)	Prop < 0.10 <i>Low</i>
Pre-empting Theatrical Career Expenses during Shakespeare's Erickson-Timely Phase (3)	Prob < 0.15 <i>Moderately Low</i>
Horseback Travel as Described in "Shakespeare in the Saddle" (4)	Prob < 0.10 <i>Low</i>
Hoghton Family Tradition (5)	Prob < 0.30 <i>Less than Even / Somewhat Low</i>
Rufford Villagers/Hesketh Possession of Hoghton-Labelled Instruments (6)	Prob $\approx$ 0.10 <i>Low</i>
Savage 1 of 2 Trustees for Globe Theatre with Rufford Village Upbringing (7)	Prob < 0.05 (Chance Recruitment for this) <i>Very low</i>
Tong Epitaphs written by Shakespeare (8)	Prob $\approx$ 0.5 (if not Shakeshafte) <i>Even</i>
Annotated Folio of Hall's Chronicles (9)	Prob $\approx$ 0.10 <i>Low</i>
Cottom Schoolmaster and of Tarnacre, Lancashire (10)	<i>Disregarded</i> deferring to Michael Winstanley's 2017 paper in <i>Shakespeare Quarterly</i>
PROBABILITY OF SHAKESPEARE-SHAKESHAFTE HYPOTHESIS:	<i>Extraordinarily low to result from chance</i>

Figure 4. Panorama of Resemblances Examined in the SRLP showing for each the chance of a coincidental match. Such numbers are necessary in order to approximate the probability whether William Shakespeare and William Shakeshafte are the same individual.

\* Numbers, or number ranges, identified here are based on ongoing tentative estimates.

To the date of publication, what the SRLP contends, based on a panel of technical comparisons, each as close as can be conformed to traditional probabilistic record linkage practices, is that William Shakespeare of Stratford and William Shakeshafte of Lancashire evidently are one and the same person. Helen Moorwood, herself of Lancashire upbringing, provides a succinct theoretical explanation for the twist on surname. Moorwood points out<sup>53</sup> that William Shakespeare's father, John Shakespeare, applied for a grant of arms (as in, coat of arms) using language concerning an ancestor rewarded by Henry VII already familiar to her from an altogether different setting and family. An Alexander Standish of Standish application contains equivalent language: in their case, their reward stems from the Battle of Bosworth (22 August 1485), taking place geographically on the border with Warwickshire. This language differs from other royal awards. It fits also for Shakespeare's family.

According to Moorwood's theory, John Shakespeare's great-great grandfather was recruited into the army from his home grounds of Lancashire, where Shakeshaftes but not Shakespeares are known to have been extant (Mormon databases substantiate this<sup>54</sup>). Straddling the Warwickshire border, their army including one or more Shakeshaftes won and, as a result, Henry Tudor became crowned King of England. In the spirit of sharing the spoils, in the new king's name his ministers identified land from the losing army's local territory, some of which was clearly in Warwickshire, and the king awarded a parcel of this land to the Shakeshafte ancestor whose genealogic line subsequently was lured south from Lancashire, laying down new roots in Warwickshire, where contrary to their northern experience (many Shakeshaftes) only the surname Shakespeare was hitherto extant (Shakespeares but not Shakeshaftes). At this point the family line no doubt, and in short order, succumbed to the locals calling them "Shakespeares." Eventually William Shakespeare received the opportunity to head north where the ancestral branch of his family still lived, and there his family would naturally, without missing a beat, revert to referring to him as William Shakeshafte. No alias, no assumed name, no covert agenda is involved in any of the above.

## **CONJECTURE THE DATE METHOD 7 DETAILS**

### **Shakespeare-Shakeshafte Long Ride Derived Estimate**

If we conjecture that Shakespeare and Shakeshafte are in fact one and the same person, then facts pertaining to one *also* pertain to the other. Therefore, events connected to one may very well be connected to events whose connections would otherwise be overlooked. In particular, given their intriguing interval between the two on the map, an event for Shakeshafte (he receives a third payment from an annuity) and an event for Shakespeare (he and his bride, or their representatives, pay for a wedding license) could involve the same money. If it were the same money, or just as likely its availability removed an inhibition against using otherwise available funds, then the money almost certainly began its departure from Lancashire no sooner than the date it became available, transported by Elizabethan era

means, with all due slowness, to Stratford, and from Stratford the one day's ride to the consistory court in Worcester.

If Shakespeare is Shakeshafte, then his employment for most of 1582 appears to have been tied to Lancashire. Would he have entrusted to someone else the delivery of (in today's money) at least £500 for his wedding, or would he have transported it himself? More likely, if he had any capability to do so, he did it himself.

*First*, it was his and Anne's wedding. He himself had no choice but to be in Stratford at least for the wedding itself on any account. The next three points are documented in Dent.<sup>55</sup> *Second*, long riders especially of his day faced the hazard of unscrupulous horse businessmen called "jockeys" (same word as modern day horserace-riders, but entirely different meaning) who directed their hands or ostlers, for example, to skimp on horse-feed when the rider looked the other way. Entrusting the journey to someone else, one could never be sure one's representative would overcome this risk. *Third*, if Shakespeare/shafte were to consider the post for delivery, he knew that posts of the mail routinely succumbed to opportunities for part-way riders to pay for rides across an interim distance, a practice which accounted for the bulk of delays in the delivery of the post but which also laid bare some of the journey to theft. Moreover, the risk of "highway" robbery was likely worse for the post. *Fourth*, the cost of a 2-way post "rented" for the 117 mile ride between London and Bath was £4: more or less £2,000 in today's money. For the one-way trip from Preston to Stratford a cost of £2 would have wiped out the annuity money entirely. However, the bottom line is he *had to attend his own wedding*, so why not plan the entire trip and wedding date around the arrival of this money?

In order to prove this point, for the moment suppose we *entirely discard the Shakespeare-Shakeshafte hypothesis*: throwing it out the window. Let's consider the remaining facts without the bother of the money arriving, its travel to the consistory court, or its effect on anything. Can we predict from the remaining facts the ETA (estimated time of arrival) of the couple or their representative(s) at the consistory court to obtain the wedding license? As shown above, this approach results in six guesses – all six without the long ride – which at best are incorrect by 14 days.

Now, at this point, we turn back again to the Shakespeare-Shakeshafte hypothesis, as follows:

- 1.) Based on the ethos and harsh recusancy penalties for non-attendance at Anglican church service in the legal system of the time, assume Sunday work or travel, at any time, is unacceptable.
- 2.) Assume the Long Rider Guild's ten-day estimate for travel from a start in or near Preston, Lancashire, to Stratford-upon-Avon (135 miles per Figure 3) is accurate, and given assumption #1 begins either Monday 12 November (earlier start) or Tuesday 13 November (later start). (See Figure 5.) These are the earlier, or Monday trek, and the later, or Tuesday trek.

- 3.) Assume business, rest or layovers, and any trouble-shooting of complications, cumulative, of 24 - 48 hours en route and 24 - 48 hours in Stratford – in the latter case – e.g., collecting required signatures. According to Gray in *Shakespeare's Marriage*, documents needing to be brought included a sworn allegation, a letter from a third party certifying no impediment to the marriage existed, and also a letter of consent.<sup>56</sup> This means to the trip add 2 days minimum (1 en route + 1 in Stratford) and 4 days maximum (2 en route + 2 in Stratford). Because of the Sundays hiatus, for the earlier, Monday trek, arrival in Stratford is now at a minimum 24 November and a maximum of 27 November, while for the later, Tuesday trek, arrival in Stratford is now at a minimum 26 November and a maximum of 28 November.
- 4.) Assume mounted travel from Stratford to the consistory court in order to obtain the wedding license consumes one day. This makes the sooner, Monday trek at its destination there on either 26, 27, or 28 November (25 being another Sunday), while the later, Tuesday trek reaches its destination there on either 27, 28, or 29 November.
- 5.) The resulting distribution of ETA's unfolds as follows: one chance to land on 26, two chances to land on 27 (one from each trek), two chances to land on 28 (again, one from each trek), and one chance to land on 29. This entire distribution results from the money's distribution in Lancashire on 11 November, under the aforesaid assumptions. In statistical practice, we want to divide the number of chances by the sum of all chances. There are six total chances. Figure 6 charts these observations and the difference between the actual wedding license date of 27 November and the date expected based on the Shakeshafte money.

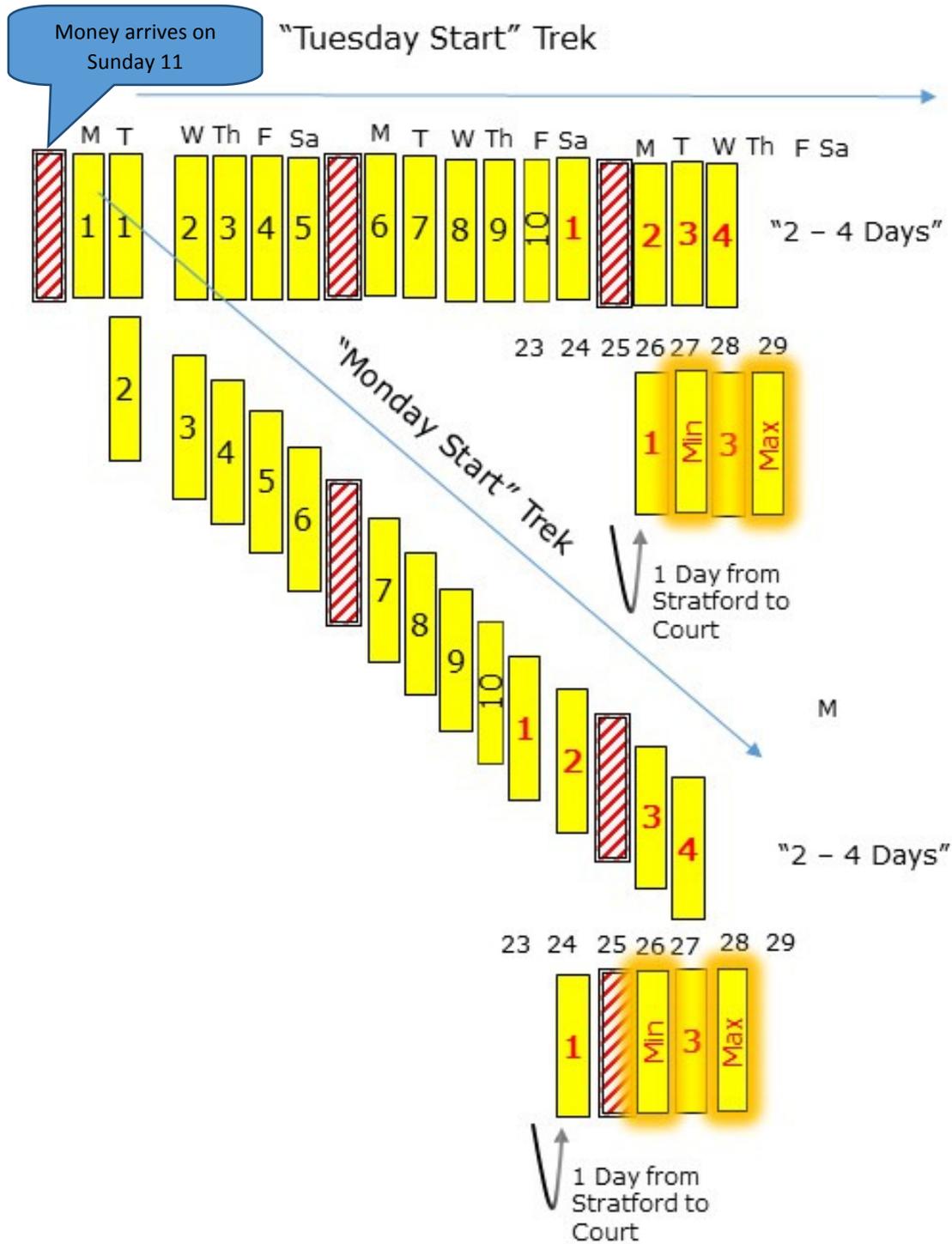


FIGURE 5. *Earlier or Later Travel from Lancashire to Court via Stratford: Money arrives Sunday, 11 November; starting on its trek south either Monday or Tuesday for travel of 10 days; "slack" of 2 - 4 days; finally, one day's travel from Stratford to Consistory Court.*

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*Mean Expected ETA Based on Shakeshafte money's 11 November 1582 Distribution Date. Each box is intended to represent time from open to close of business.*

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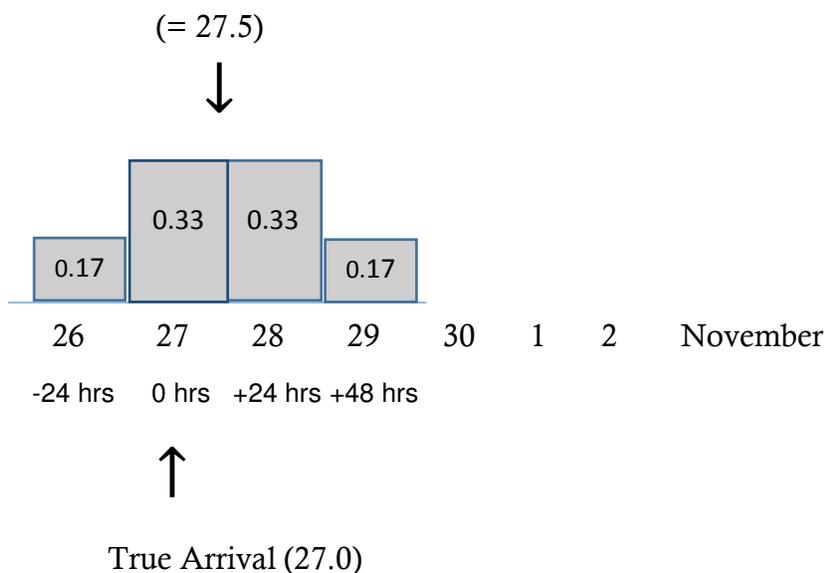


Figure 6. *Distribution of Dates Employing Horse Travel Data*

Remarkably, the mean predicted arrival at the consistory court here is a meager 12 hours misaligned with the actual historical event. Contrast this 12 hours deficit of accuracy with the *14 days* deficit of accuracy for the best among all ETA's when the facts exclude the Shakespeare-Shakeshafte hypothesis. In short, the fourteen days deficit without the horse ride is *28 times as far from the historical record* as the estimate based on horseback travel from Preston to Stratford, one entire order of magnitude worse – times three.

Such evidence points indirectly, but clearly, to the Shakespeare-Shakeshafte hypothesis. However the “indirectness” of this pointing nearly reaches the limit of what “indirect” or “circumstantial” can mean. If this evidence is “circumstantial,” it stretches the definition of circumstantial to the edge of what it means to be not circumstantial but direct evidence.

In the SRLP, a host of avenues of resemblance are assembled to get the best possible estimate of the master probability. Note that the reliability of record linkage *improves* with additional avenues of linkage. To satisfy those critical of the Shakespeare-Shakeshafte hypothesis, the conveyance by horse of Shakeshafte's third instalment of his annuity to either pay for, or free up the payment of other funds to pay for, Shakespeare and Anne Hathaway's wedding license is treated in two diametrically different manners. In one of the

two, this travel on horseback is included in the data, while in the other of the two, travel on horseback is entirely dismissed. The SRLP probability estimates indicate that whether horseback travel is trotted out or left back in the barn, the Shakespeare-Shakeshafte hypothesis is highly probable, while the assumption that Shakespeare and Shakeshafte are two different individuals is distinctly unlikely.

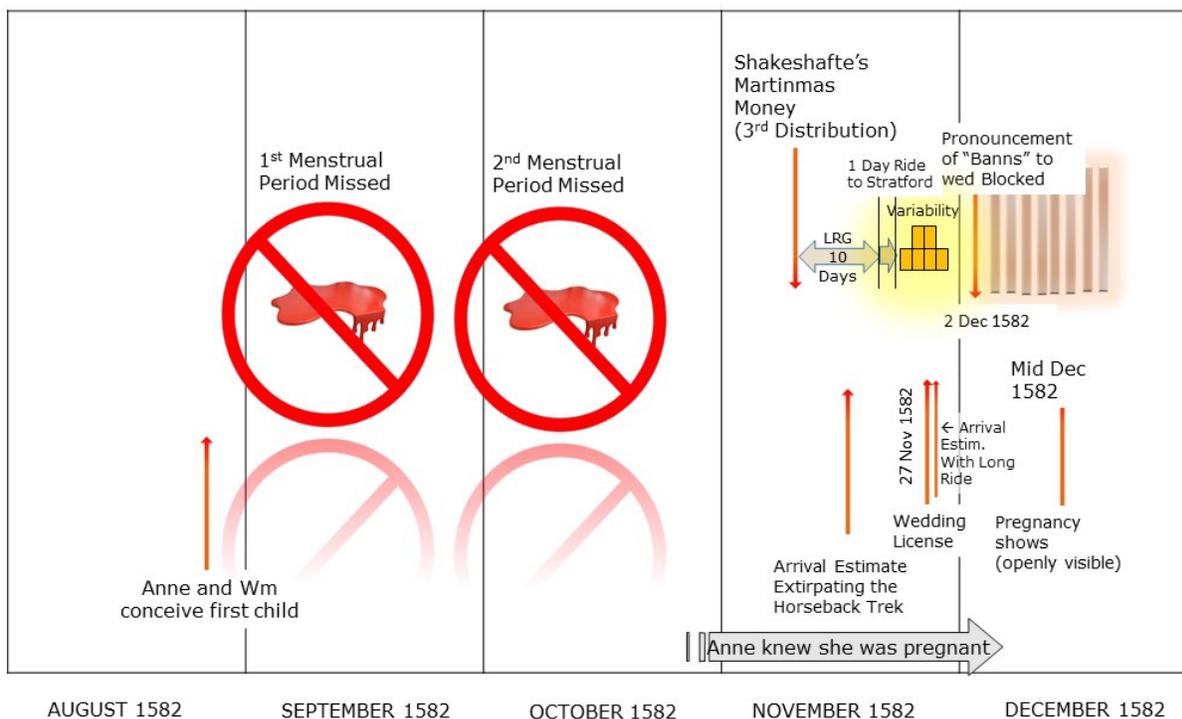


FIGURE 7. Shakeshafte and Shakespeare Facts Brought Together

A critic of the preceding analysis might be tempted to argue that, whether deliberately or inadvertently, in subtle or less-than-subtle ways, its assumptions have been conveniently cherry-picked in such fashion so as to foreordain its results. In fact, this is not the case. Instead of the money being transported either of the two days following its arrival on Sunday the 11th, we could have included as further options still more delayed starts on Wednesday the 14th, Thursday the 15th, Friday the 16th etc. Eventually the mean distribution for the wedding license application must shift from an impressive 12 hours deficit of accuracy to an error in expected arrival on the same order of magnitude as the one predicated on the absence of any horse trek connecting Shakeshafte and Shakespeare. But how far must these delayed start days go in order for this to occur?

In order for an estimated consistory court arrival based on a highly delayed horse trek to overshoot the true arrival by at least one entire week (recall the "horseless" estimate missed by 14 days, two weeks), the median of the distribution would have to fall no sooner than 4 December, because 4 December is one week after 27 November the true arrival in the

consistory court. The right-most tail of the symmetric distribution would be at least 2 days following 4 December: 6 or later in December. In this scheme, all arrival dates literally occur *after 2 December and therefore during the season prohibiting weddings*. Such a scheme is best described as madcap.

In the opposite direction, an under-shoot of at least one week would require a seven, six, or even fewer days ride, no riding on Sundays. At this pace, the rider would risk ruining his horse, or otherwise requires expensive, staged changes of horse en route. Neither scenario rings true for the known facts, especially when the monetary expense of staged horses is accounted for.

If the critic admits that these schemes to deliberately worsen the ETA until it approaches the level of inaccuracy following from horseless assumptions would be harebrained, he or she might be tempted next to consider the other assumptions as arbitrary and perhaps biased toward a fixed result. What if there were in fact travel on Sundays as opposed to no travel on Sundays? This is far from likely, given Dent's emphasis that one had to be in church on Sundays or face the risk of being arrested by pursuivants as a recusant.<sup>57</sup>

Ignoring this danger, from the arrival of the money on 11 November through the date of the arrival in the consistory court, there are precisely three Sundays. This shift of three days is smaller than the error of a week just discussed, which, in turn, is smaller than 14 days error. Reinstating Sunday travel increases the error at most only 3 days, a modest amount compared to (a quarter of) the 14 days error without the horse trek.

What about the 2-4 days account for way-points, rests, business of any kind, and all forms of trouble-shooting to overcome problems, cumulative? Is it reasonable to expect the cumulative total of such interruptions, over the course of an otherwise ten or eleven day journey, amounted to less than 2 days or more than 4 days? Obviously it is entirely possible even on horseback to shorten such interruptions to less than 48 hours, but how typical is this eventuality? In Elizabethan England? For a wedding that must satisfy royal decrees about sworn documentation which apply? As mentioned earlier, the couple, or at least William, needed signatures in Stratford in order for the wedding to take place. Getting these signatures may not have been child's play. Likewise, formidable setbacks and business affairs can stack up and certainly the rider could have been delayed more than 4 days either en route or once arrived in Stratford, but again how typical is this eventuality?

What of the assumption that the LRG estimate of 10 days to ride from Preston, Lancashire, to Stratford-upon-Avon: is it accurate? Even the LRG would readily admit that, to reach this estimate, assumptions were made. Most importantly, it was assumed that only one horse was employed for the duration of the trek. If stages had been available to one or more riders, with different horses at each stage, one horse swapped for the next in order to continue to have a fresh horse, then obviously the relaxed pace of 10 days could have been drastically improved. On the other hand, travel of this kind was extraordinary and quite costly. When Queen Elizabeth was on her deathbed, a staged journey of horses was pre-arranged and became used in order to inform King James of his succession to the throne of

England in addition to the throne of Scotland.<sup>58</sup> This messenger service was literally a once-in-a-generation operation. How plausible are these extreme measures employed by the highest ranking of the nobility in the case of a couple seeking a wedding license?

Clearly, the elegant correspondence between a) the order of magnitude times three improvement on garden variety attempts to estimate the date of Shakespeare and Hathaway's wedding and b) the probabilistic record linkage both resonate with a *rare elegance in historical inference*.

## DISCUSSION

### **Q1 of 3: If indeed Shakeshafte and Shakespeare are one and the same individual, living on a sojourn in Lancashire, how did this man get Anne pregnant?**

Note that the Hathaway and Shakespeare families have been on friendly terms considerably earlier than the first date of the timeline marked out below.

- 1 September 1581. In Warwickshire, Anne Hathaway's father Richard Hathaway writes his will.
- 7 September 1581. Richard Hathaway is buried in Holy Trinity Church in Stratford-upon-Avon.
- 12 September 1581. In north-ward distant Lancashire, Alexander Hoghton has died and his will is entered into the Chester Consistory Court. His will mentions William Shakeshafte in the context of costumes, another actor, and having Will turned over to a new patron who will oversee theatrical affairs. The initial proposal is for this William to go to Alexander Hoghton's brother, and otherwise go to the Heskeths.
- 9 July 1582. Turning back south again to Warwickshire, Richard Hathaway's will is probated

Hypothesize that William Shakespeare at age 17 and William "Shakeshafte" are the same individual. His patron has died. After the funeral, the family may very likely have temporarily released Will from whatever indentured servitude he has been employed to return south home to his family while his deceased patron's testamentary will and estate etc are getting sorted out. Until this sorting out, the Hoghtons family won't necessarily know what to do with Will. Even the will itself explicitly leaves open different ways Will can be sent to a new patron.

In Warwickshire, meanwhile, ten months will elapse before Richard Hathaway's will is probated 9 July 1582. Alexander Hoghton's estate, to the north, on the one hand, is vastly grander and more complicated than Anne Hathaway's father's; on the other hand, Hoghton's lawyer and executor (his widow) have considerably more help.

If the Hoghton estate also takes ten months to sort out (no record of an *Inquisition post mortem* has been thus far discovered for Alexander Hoghton to establish this date but such inquiries were standard among the landed gentry at the time), then Will may well have

suddenly faced as many as ten months of unexpected "freedom" from his Lancashire employment -- after which the Hoghtons household (or a household to which he was forwarded, such as the Heskeths, mentioned in the will) would, of course, summon him to return.

This meant that during or soon after October 1581, Will returned to Stratford-upon-Avon. After his original long ride to Lancashire on an unknown date in 1580 [**LONG RIDE A** Stratford, most likely, to Lancashire], probably mounted on a palfrey (saddle horse other than a warhorse), Will makes a second long ride: returning back to Stratford for the first time [**LONG RIDE B** Lancashire to Stratford], again probably mounted on a palfrey. Upon arrival, he will quickly learn that, at the same time as his patron's family to the north have been in mourning, the Shakespeares have been in the process of comforting their family friends the Hathaways who have also just recently lost the head of the household and are consequently in mourning.

It requires no great leap to see that Will is enlisted along with other family members to participate in this neighborly process of consoling the Hathaways, and he specifically consoles Anne Hathaway, one of the deceased man's daughters, who is 8 years Will's elder, already a friend of the family's -- perhaps consoling her among others.

During the next several months, for Will his own "consolation" effort directed toward Anne at some point takes a turn toward courtship. Even if its genesis springs merely from a "mock" courtship intended no more than to mitigate the pains of mourning and the actual romance short-lived: only, say, a few months in the making, by this time it is summer 1582. According to the reverse due date calculation of their child's birth (based on the christening date, since the exact birth date is unknown), during the last week or two of August, Will and Anne conceive a child. It will be two more months before Anne can be absolutely sure of her pregnancy, being deprived of modern technology.

If the ten months process of sorting out Alexander Hoghton's will has set more or less a reasonable precedent, then perhaps by July or August, Will will likely have been summoned back to Lancashire to learn about his new employment scenario. This summons may have contained words to the effect, "Please come back in the next three or four weeks" or something similar. Perhaps this summons itself, in fact, elevated an otherwise ordinary parting from each other from a mere farewell between friends -- consoling-friends -- to a realization they have become now lovers and this realization spurs them into bed together.

This scenario puts Will on the long ride back to Lancashire in September [**LONG RIDE C** Stratford to Lancashire]. Anne may suspect she is pregnant but she will not be quite certain (in this plausible scenario) until late October. In October or the early days of November, she writes a letter and posts it to Will disclosing she is pregnant. Will writes back either proposing marriage for the first time or reiterating an earlier proposal to her for marriage, which she accepts by mail. The only question is "when" to wed.

It is now too late to avoid the surety pledge they must provide to the Consistory Court. The third installment of the Alexander Hoghton annuities to Will is scheduled for 11 November

1582. It is entirely possible that not only is Will due his third installment but in fact neither of the two preceding installments has yet been paid to him because of the ongoing sorting out of the will and some degree of confusion after the death of their lord. In addition, in the confusion immediately following Alexander Hoghton's death, he also may be owed back pay on his services for Alexander Hoghton through the time when he passed away.

If *any of these things are true*, not necessarily all of them, then the 11 November 1582 date is very significant for him. He is probably now in the employ of the Heskeths family, transferred there (based on Alexander Hoghton's will) from the Hoghtons, but the authors' guess is the Heskeths released him entirely from employment and may even have urged him to go to his fiancée by this time. Also it was true that the season for weddings in 1582 ended on 2 December. So for all these reasons the choice of wedding date comes to be almost inevitable.

During November, shortly after receiving his payment(s), Will now mounts his horse and rides south for his wedding to Anne [**LONG RIDE D** Lancashire to Stratford -- the one specifically proposed in the seventh estimation attempt as well as in the probabilistic record linkage study]

**Q2 of 3: Accepting the evidence for this circuit of long rides between Stratford and Lancashire, what equine influence would such long rides have had on Shakespeare?**

For Shakespeare, the rhythm of the horse's hooves during these long travels was ubiquitous. This rhythm of the horse provided the playwright-poet ample opportunity to develop, test, and hone a rhythm in his own language. It also served as a platform from which to see people in many different settings along his route. Further, it also facilitated a detachment from the hubbub of pedestrian life in Elizabethan (and later Jacobean) England. Horses are to be thanked for contributing these three advantages to the greatest voice in the English language. It stands to reason in all likelihood he became emotionally attached to his horse.

**Q3 of 3: Alexander Hoghton's testamentary will explicitly mentions the Heskeths of Rufford, and Rufford Villagers seem to confirm Shakespeare's shorter-term stay with the family. How do the Heskeths fit in?**

There are several possibilities, in each case beyond the scope of research so far conducted. One is that Shakespeare worked for the Heskeths between Alexander Hoghton's passing and his return to Stratford, so that his participation in the Shakespeare family's consolation of the Hathaways began in a delayed month. Another possibility is that the start of Shakespeare's work for the Heskeths, rather than his return, was delayed until after his wedding. A combination of these two forms of work is also possible. There are some indications in the historic record that the head of the household for the Heskeths was jailed during the time when the hand-off to the Heskeths would have taken place if immediately after Alexander Hoghton's funeral: this could help explain Shakespeare's return earlier to Stratford rather than later. Additional scenarios might be equally credible, but are beyond the scope of this paper.

## CONCLUSION

Excluding travels connected to the English theatre, Shakespeare's additional travels were not limited to England but likely included Italy. The fine details of his plays set in Italy correspond strikingly to the rich ground details in Italy, strongly suggesting he was familiar with Italy from horseback as well as, in at least one or two cases, by waterborne vessel in a manner transcending mere book learning. In addition, compared to two back-to-back generations -- his own and that of his parents -- Shakespeare also alternately sets his plays geographically either in Italy or in England, in such a bulk manner that travels to Italy during his lifetime help explain this pattern. How many of these travels remains an open question.

In England itself, the controversial hypothesis that Shakespeare and a man named Shakeshafte are the same individual is in fact supported via two independent, newly introduced, ways. First, efforts to estimate Shakespeare and Hathaway's wedding application fall afield at minimum triple times an order of magnitude away from the historical record compared to an estimate based on the Shakespeare-Shakeshafte hypothesis which only assumes a long ride by Shakespeare from the third distribution of Alexander Houghton annuities to Stratford and then either Shakespeare or his proxies to the Consistory Court. Both the facts of his wedding as well as, at least tentatively, an ongoing probabilistic record linkage study arrive at the same conclusion. If accurate, departure and arrival dates unrelated to theatrical travel, from a long horse ride (Long Ride D) are now, for the first time in Shakespeare scholarship, available for future scholarly study.

The logic of the long ride scenario, from arrival of the annuity in Lancashire to arrival at the consistory court, is neither sophisticated nor especially shrewd. Nevertheless this unsophisticated, one might say "country-boy" or "country-girl" unsophisticated way of getting from one to the other results in an estimate of the license application three times an order of magnitude superior to any otherwise available method of estimating the date deprived of recourse to the Shakespeare-Shakeshafte hypothesis.

At Census Bureau headquarters in the United States, where one of us served almost 15 years, if we improved on the amount of bias by a factor of 3, this refinement would be considered important. If we improved on the amount of bias by an order of magnitude, that would be considered impressive. But even that does not adequately describe the state of research linking Shakespeare and Shakeshafte. In this case, we encounter *triple times an order of magnitude improvement*. Party time?

Are misgivings about the "coincidence" of the long ride in fact justified, or are such misgivings over-wrought? If the probabilistic record linkage of the Shakespeare Record Linkage Project survives scrutiny, then two independent lines of evidence point unequivocally to the same conclusion. The statement of Gray, Atkinson, and Greenhill bears quoting:

“Historical inference is at its most powerful when independent lines of evidence can be integrated into a coherent account.”<sup>59</sup>

Corollary to this long trek by horse in November of 1582 is the strong possibility of three previous long treks (Long Rides A, B, and C), along the same or similar routes – a circuit between Warwickshire and Lancashire journeyed at least twice during Shakespeare’s youth.

**“QUARTER  
CENTURY ROUND”  
i.e., 25-yr, DATE  
(negative signifies  
B.C.)**

<b>TITLE</b>	<b>DATE</b>	<b>“REGION”</b>	<b>LOCATION</b>
KING LEAR	-800	BRIT ISLES	ENGLAND
CORIOLANUS	-500	ITALY	ITALY
TIMON OF ATHENS	-400	EUROPE ASIDE FROM ITALY	ATHENS, GREECE
JULIUS CAESAR	-50	ITALY	ITALY
ANTONY & CLEOPATRA	-25	ITALY & OTHER	ITALY & EGYPT
CYMBELINE	+25	BRIT ISLES & ITALY	ENGLAND & ROME
COMEDY OF ERRORS	+150	OTHER	EPHESUS, TURKEY
TITUS ANDRONICUS	+350	ITALY	ITALY
PERICLES	500	OTHER	Tyre, Antioch, Tarsus, Ephesus in TURKEY
MIDSUMMER NIGHT’S DREAM	700	EUROPE ASIDE FROM ITALY	ATHENS, GREECE
HAMLET	850	EUROPE ASIDE FROM ITALY	DENMARK
MACBETH	1050	BRIT ISLES	SCOTLAND
KING JOHN	1200	BRIT ISLES & EUROPE ASIDE FROM ITALY	ENGLAND & FRANCE
TROILUS & CRESSIDA	1250	OTHER	TROY, TURKEY
ROMEO & JULIET	1300	ITALY	VERONA
ALL’S WELL ENDS WELL	1350	ITALY & EUROPE ASIDE FROM ITALY	ITALY & FRANCE
RICHARD II	1400	BRIT ISLES	ENGLAND
HENRY IV, Pt 1	1400	BRIT ISLES	ENGLAND
HENRY IV, Pt 2	1400	BRIT ISLES	ENGLAND
HENRY V	1425	BRIT ISLES	ENGLAND
HENRY VI, Pt 1	1425	BRIT ISLES	ENGLAND
TAMING OF THE SHREW	1450	ITALY	PADUA, ITALY
HENRY VI, Pt 2	1450	BRIT ISLES	ENGLAND

HENRY VI, Pt 3	1475	BRIT ISLES	ENGLAND
RICHARD III	1475	BRIT ISLES	ENGLAND
MEASURE FOR MEASURE	1475	EUROPE ASIDE FROM ITALY	VIENNA, HOLY ROMAN EMPIRE
<b>HENRY VIII</b>	<b>1525</b>	<b>BRIT ISLES</b>	<b>ENGLAND</b>
TEMPEST	1550	ITALY	MEDITERRANEAN ISLAND (also Duke of Milan)
TWO GENT OF VERONA	1575	ITALY	VERONA
AS YOU LIKE IT	1575	EUROPE ASIDE FROM ITALY	ARDENNES, FRANCE
LOVE'S LABORS LOST	1575	EUROPE ASIDE FROM ITALY	NAVARRRE: OVERLAPPING FRANCE & BASQUE, SPAIN
MUCH ADO	1575	ITALY	MESSINA, SICILY
OTHELLO	1575	ITALY	VENICE
MERCHANT OF VENICE	1600	ITALY	VENICE
MERRY WIVES OF WINDSOR	1600	BRIT ISLES	WINDSOR
THE TAMING OF THE SHREW	1600	ITALY	PADUA, ITALY
WINTER'S TALE	Because of Delphi Oracle may be ancient?	ITALY & (2 <sup>nd</sup> half) EUROPE ASIDE FROM ITALY	SICILY AND BOHEMIA

The table above is drawn principally from the Folger Shakespeare Library web page:

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