Abstract

This article draws on the Social Edition of the Devonshire Manuscript represented in the form of a Neo4j graph and the practices of digital prosopography to better understand the circulation of poetry in the sixteenth-century English court. A Neo4j can represent attributes of real-world entities in the form of a graph, which can illuminate patterns in large amounts of information that are difficult to retain otherwise. The paper is motivated by the INKE Modelling and Prototyping team’s objective of improving the analysis of extant and developing digital resources in ways that meaningfully extend the codex form. The authors argue that the manuscript has the same value for scholars interested in its unnamed contributors as for those interested in its named contributors.

Keywords: Early modern; TEI; Database
Introduction and contexts: The Devonshire Manuscript

Palaeographers have only identified six of the 19 scribal contributors to the Devonshire Manuscript to date. While the remaining 13 contributors are still unidentified, they left clues about the textual networks that shaped their engagement with courtly love poetry by their very contributions. The poems and unattributed hands in the Devonshire Manuscript invite scholars to engage in prosopography, the production of a collective biography of a group about whose members there remains only fragmentary evidence. Responding to the Implementing New Knowledge Environments (INKE) Modelling and Prototyping team’s objective of improving the analysis of extant and developing digital resources in ways that meaningfully extend the codex form, the article turns to digital prosopography analysis to better understand the circulation of poetry in the sixteenth-century English court. Following an introduction to the Devonshire Manuscript, it turns to the debates in biographic and prosopographic studies that have informed the approach to the digital text. After outlining current scholarship about the named hands in the manuscript, from which many of the research cues are taken, the article outlines how entering the poems and their metadata into a graph database lets the unidentified contributors’ patterns of behaviour in the manuscript itself be traced. This paper engages with the debates about prosopographic best practice, connecting the open and “visible record” called for by Michele Pasin and John Bradley (2015) to the larger imperative to develop more open models of scholarly publishing (Bradley & Short, 2005; Verbven, Carlier, & Dumolyn, 2007). The article responds to that call as we work to develop new knowledge about the unnamed contributors to the Devonshire Manuscript. Our research team set out to examine the content, paleographic style, annotations, and thematic content in order to improve prosopographic understanding of the unnamed contributors.

The Devonshire Manuscript is a verse miscellany compiled by members of Henry VIII’s court in the 1530s and early 1540s. While the text is an important witness to the canon of the poet Sir Thomas Wyatt, as it is made up mostly of his work, and to the circulation of courtly love poetry, the manuscript contains certain mystery: only a third of the hands in the manuscript have been identified. That said, each contributor, named or not, has particular habits. For example, half of the contributors to the manuscript (Hands 1, 3, 4, 5, 6, 8, 9, 10, 11, and Mary Fitzroy, identified by Helen Baron [1994]) dedicate themselves to copying extant pieces; another five (Hands 1.1, 2, 7, Thomas Howard, and Margaret Douglas) enter a mix of extant material and material that appears only in the manuscript. The remaining five hands (Hands 12, 13, Henry Stewart, Mary Shelton, and Thomas Howard [using a slightly different hand]) only enter original material, which may or may not be of their own devise. Of the 193 pieces in the manuscript, 45 are unique to it (Baron, 1994; Siemens, Armstrong, Crompton, & The Devonshire MS Editorial Group 2016c).

As 129 poems in the manuscript have been attributed to Wyatt, the manuscript has long served as a source for his canon. The Social Edition of the Devonshire Manuscript project, however, has been influenced by Arthur Marotti’s (1995) argument that scholars ought also to attend to the manuscript as a source of information about how lyric verse was used in a social environment. The project has foregrounded contributors who have not been lionized, including lesser poets, and the men and women who would otherwise...
be excluded if the project focused solely on Wyatt. This phase of the project takes Marotti’s precept further, attending not just to contributors who are less famous than Wyatt, but to contributors who to this day have gone unnamed.

We have undertaken this interrogation into what can be known about unnamed contributors to the manuscript with the aid of digital tools, specifically, a Neo4j graph database, a process that will be expanded upon in the Process section of the article. At the heart of this project is a transcription, painstakingly created from a facsimile via a double-blind method, with further confirmation through comparison to the Devonshire Manuscript itself. From 2002 to 2009, the Social Edition of the Devonshire Manuscript team encoded the transcription and 700 witnesses to the manuscript in the Text Encoding Initiative (TEI) that underpins the Wikibooks edition (for more on this edition and our reflections on the affordances of Wikibooks for social editing see Crompton, Siemens, Arbuckle, & the DMSEG, 2015). In the last year, the team transformed the TEI into Cypher, Neo4j’s query language, and populated the database with the poems and their metadata (see Figure 1).

**Figure 1: Schematic drawing of the TEI-to-Cypher conversion process**

[Diagram showing the conversion process from TEI to Cypher]

**Contexts: Palaeography and attribution**
The Social Edition of the Devonshire Manuscript builds on and responds to the scholarship on the manuscript that has come before. The scholarly community has engaged with the manuscript as an important source for the Wyatt canon, for insights into men and women's writing together, to Henrician social networks, and the rise of the popularization of new sonnet forms. The current phase of the Social Edition of the Devonshire Manuscript is particularly engaged with questions of prosopography, or collective biography, and what we can deduce about unidentified hands in the
manuscript based on the evidence they have left in its pages. Historically, the manuscript was used almost solely as a source for the poetry of Sir Thomas Wyatt and Henry Howard, Earl of Surrey, and not as a source of socio-historical data about the Henrician court. This phase of the project, however, is most indebted to, and draws on, Elizabeth Heale and Helen Baron's articulation of the prosopographic commonalities between the MS's contributors. Baron (1994), in “Mary (Howard) Fitzroy’s Hand,” identifies the hands of Mary Fitzroy, Margaret Douglas, and Mary Shelton. Heale (1995), in “Women and the Courtly Love Lyric: The Devonshire MS (BL Additional 17492),” confirms many of Baron's paleographic claims and builds a socio-historical profile of the group. Reflecting on the work that still needs to be done, Baron (1994) asks two questions:

First, what is the interrelation of the hands in [the Devonshire Manuscript]? (How many are there altogether; which hands annotate, correct, or complete poems entered by which other hands; and do any have significantly superior authority?) Secondly, what can be ascertained about the people whose names occur in it? (What dates can be associated with them; how many of the names are autograph; and what was the relationship of those writers to the anthology?). (p. 325)

We argue that the manuscript has the same value for scholars interested in its unnamed contributors as for those interested in its named contributors. Baron (1994) and Heale (1995) have made deductions based on textual evidence about these women within the contents of the manuscript, and we will do the same, focusing on the unnamed hands in the manuscript in order to answer historical questions about the contributors. Ray Siemens, Johanne Paquette, Karin Armstrong, Cara Leitch, Brett Hirsch, Eric Haswell, and Greg Newton (2009) have also stated that it was common at the time not to put one's name at the bottom of a poem, which makes it difficult to distinguish between the men and women who composed or borrowed poetry for the manuscript, and those who simply entered it. We can continue the work that Baron calls for while also furthering the Siemens’ work (Siemens, Bond, & Armstrong, 2008; Siemens et al., 2009).

The project traces the type of poetry or poets the unnamed contributors were drawn to and their likely education level. Following Heale (1995) and Baron (1994), our research seeks not to participate in the long tradition of erasure of women from the manuscript, but rather to illuminate and explore a potential past with the aid of digital tools. Heale (2012) has described the Devonshire Manuscript as “this delightful anthology bristling with tantalizing clues” (p. 32). We have taken our cue from Heale. Although we cannot identify the hands, we can treat the manuscript as a manuscript filled with internal clues about the as-yet unidentified contributors. For example, Baron (1994) analyzes one Mary Fitzroy’s personal letters to Surrey, noting that Fitzroy’s hand is untrained. Based on Baron’s assertion about Mary Fitzroy’s hand, we can extrapolate that some of the contributors who have similarly untrained hands are likely women.

Hand 1, a hand that Baron (1994) called the “immature,” (p. 329) is thought to be the first hand to contribute to the manuscript, copying eight poems into it (one of which was corrected by Margaret Douglas). Baron does not necessarily say the hand is illegible, just “immature.” If this were the hand of a woman, we would expect more of the untrained markers Baron identified. As a result, we argue that Hand 1 is likely a
man. Hand 1, however, is not a professional scribe or a contributor with any kind of extensive training in writing. There is also a second hand resembling Hand 1, Hand 1.1, which enters some “risqué lines” in the voice of a man (Heale, 1995, p. 310). Our assertion that Hand 1 is male is further corroborated by its similarity to Hand 1.1, a hand that contributed poems written in the voice of a man.

Hand 2 was one of the more involved hands, contributing to 27 different poems, and has been described by Richard C. Harrier as a “legible and consistent secretary hand but not of professional refinement” (quoted in Heale, 1995, p. 301). Heale (1995), however, argues that “there is no reason to think that the copier is a woman” (p. 301). Hands 4, 5, 6, and 7 are written in what Baron (1994) describes as “mature” or “fluent” (p. 326) cursive, which probably means these are men’s hands. Hand 7 also has several poems that “represent women as faithless and false” (Heale, 1995, p. 309), perhaps as a result of courtly misogyny. Hand 8 has entered poems in a hasty fashion, 66 in total, in a “rapid professional cursive” (Baron, 1994, p. 331). This would mean Hand 8 is a man, but the word “professional cursive” means that this contributor had professional training.

We know less about the hands that appear infrequently (Hands 10, 11, 12, 13). Baron (1994) has described Hands 11 and 12 as “untidy” and “ill-formed” (p. 332) respectively. Perhaps these two hands were other women who contributed to the manuscript, but, due to the infrequency of their hands’ appearance, they were perhaps not as involved in the poetic engagement of the major hands in the manuscript. However, since there are pages missing from the manuscript, these minor contributors may have been more prolific contributors than the textual evidence suggests. In contrast, Siemens, Armstrong, Crompton, & The Devonshire MS Editorial Group (2016b) have called Hand 13 “ornate,” which could mean skilled and professional, or simply skilled, either way, probably implying the contributor was a man.

All of this does not necessarily mean the as-yet unattributed poems were composed by men or women, or even, necessarily by the hands that entered them. They could have been copied into the manuscript by one member of the court for a different member of the court, as happened with poems composed by Margaret Douglas entered into the manuscript by Thomas Howard (Heale, 2012). Baron (1994) also troubles using “internal proof” (p. 326) to decide who the contributors are, herself using the word “persona” (p. 327) to avoid conflating a the voice of the poem and the person of a contributor. Heale (2012) is also sceptical of using the content as biographic proof, although less so than Baron. Heale (2012) does not acknowledge the potentially performative and constructed nature of the content of the poems; however, she does note the fluidity of the texts:

> Manuscript verse in this period was freely changed, added to, appropriated, and imitated by readers who may often not have known or cared who had originally composed the verses. Comparing different versions can often reveal how fluid the texts of early modern poems were, with copyists altering—sometimes deliberately, sometimes inadvertently—the poems they copied. (p. 37)

Forty-nine of the poems lead with an incipit in the first person; 39 of these were entered by unnamed hands. Attempting to understand the unnamed contributors based solely...
on what they entered in the manuscript, and how they interacted on the page with other contributors, rather than through autobiographical details, brings us to the problem of the truth claims made by the autobiographical, or lyri-I. The first person voice in poetry is a fraught mechanism. Perhaps the poems are autobiographical, and perhaps they are not, but the lyric-I in poetry is problematic as it is always some kind of construction or public performance. In the contemporary sense, the I cannot represent an authoritative, definable subject position that can be taken literally. The lyric-I resists classification as either fact or fiction, but structurally implying a truth claim: I did this; I experienced that. But how do we, then, attempt to understand the lyric-I? Is it truth or fiction? Authentic or performed? Enikő Bollabas (2015) reminds us that "language never shows the world without itself being shown in the process" (p. 319). That is to say that the lyric-I itself is a linguistic construction, and can never be divorced from that language. In noting the problematic nature of the lyric-I, we do not necessarily wish to refute Heale (1995, 2012) and Baron's (1994) claims about the autobiographical nature of the poems, but rather to qualify the claims with further evidence from the unidentified hands' patterns of contribution, made evident by the graph database, and to trouble the generation of hard biographical fact from the poems.

Method: Biography, prosopography, and the exceptional normal

It is here that we turn to the historical construction of the exceptional normal, which offers us an alternative to reading the poems for information via the lyric-I. The exceptional normal is a context-based micro-history technique that recentres aspects of history that diverge from the master narrative by hypothesizing “the more improbable sort of documentation as being potentially rich” (Ginzburg, 1993, p. 33). Focusing on the exceptional normal allows a historian to concentrate on “unusual events rather than every day social processes” (Brown, 2003, p. 11). This type of historiography alone is not enough as it can introduce thinly substantiated generalizations about a time period – an essentializing tendency – on the basis of what could be a single anomaly; however, this method can also combat the generalization of macro-historical processes and data driven projects that may reduce small irregularities in the data to common denominators. If we acknowledge the mutually constitutive meaning-making processes of the literary text and the theorized historical moment, allow that both history and fiction alike are constructed, and resist the extraction of objective knowledge or empirical fact from them, individual examples can provide a glimpse into a potential history. In regards to our work on the Devonshire Manuscript, the exceptional normal allows us to use evidence that is perhaps not corroborated anywhere else inside or outside of the manuscript in order to learn about the manuscript and its contributors, as we have only fragmentary pieces of evidence from which to develop biographic hypotheses about the unnamed contributors from the text.

We are not, as it turns out, at a loss for information about the people whose hands have not been identified. We have plenty of information: we know what they were reading, how they transcribed, and which of the other contributors they interacted with in scribal form. We turn, naturally, to prosopography, the development of collective biography from fragmentary evidence, to work out what can be known both individually and in aggregate about the unnamed hands in the Devonshire Manuscript.
Traditional prosopography develops an average life deduced from fragmentary evidence about a number of lives; however, we extend traditional prosopography by subscribing to John Bradley and Harold Short’s (2005) model of prosopography. Their model is built on assertion-based factoids (who said what about whom) rather than an event-and-agent type facts (a series of dated biographical facts). We subscribe to Bradley and Short’s model since our textual evidence may, for example, include an assertion that Mary Fitzroy was a caretaker of the Earl of Surrey’s children, even if we do not know the dates that she took up and set aside that role (dates that would be required for an event-based model that marked the event of her having taken up or left the post). This phase of the project could be said to be taking the manuscript back to its most basic factoids: Helen Baron’s (1994) assertions that the hands in the manuscript are distinct, and assertions about where the hands start and end. The assertions we have developed from our graph database are built on her claims, using the exceptional normal as a framework to understand particularities that emerge from the contributors’ otherwise average patterns of scribal behaviour.

Prosopography is not particularly dedicated to tracking names (although if any of our readers are paleographers who recognize our unknown hands, we would love to know who our unnamed contributors were) but rather to establishing identities, identities comprising assertions about what people did, where they went, who they engaged with, and when they were most active. Identity, Bradley and Short (2005) suggest, has to be something that scholars can argue about, that is to say, if we may borrow an elementary school dictum, prosopographers must show their work and their sources so that others may weigh their assertions.

As scholars we can only work with what is left in the textual record, but, as we have discovered when it comes to the Devonshire Manuscript contributors, unnamed is not the same as unknowable. Building on earlier experiments modelling the known relationships between identified contributors, we turned to a graph database to represent the hands and handshifts in the manuscript. The graph database allows us to visualize the relationship between identified and unidentified hands, the tendencies of each contributor, and the commonalities between poetic and annotational gestures made by the group. We then use that data to fill in the gaps in our existing knowledge so that we might move toward the construction of an animating narrative of the Devonshire Manuscript.

**Process: Representing the Devonshire MS in graph form**

The team’s initial tasks when formatting the Devonshire Manuscript for the Neo4j graph database were deciding upon the main components of the manuscript and the pieces of data to aggregate, query, and visualize; and then deciding how to express the relationships between them. Neo4j captures and expresses two types of information, entities and relationships. In the case of the manuscript, it lets us represent the attributes of real-world entities, such as poems and hands, and also lets us express the relationships between those entities. We have constructed four different node entity types: Poems, Witness Poems, Named Contributor Hands, and Unnamed Contributor Hands. Contributors and hands, however, do not always map neatly onto one another. Thomas Howard, for example, used two types of handwriting to enter poems into the
manuscript. There may be single contributors with multiple hands among the unidentified contributions too.

The next step was to define what the important relationships would be between these entity nodes. We decided that the named and unnamed contributors would be linked to the poems and witness poems with the following three relationships: “wrote,” “annotated,” and “transcribed,” and the witness poems would be linked to the original poems with the relationship “witness_to.” Eventually, these relationships were narrowed to just “transcribed” and “witness_to” in order to simplify the graph in these early stages.

The next step was to extract relevant information from the manuscript XML via XSLT, a programming language that transforms XML documents into new XML formats, or, indeed into other formats, which in our case meant Cypher, Neo4j’s query language. These transformations were used for every node type except the contributors. We constructed the contributor-node Cypher by hand, based on information about the named contributors we compiled in a spreadsheet. This first iteration of the database classifies poems and hands as follows:

### Poems (see Figure 2)

- Devonshire Manuscript Uniform Resource Identifier (URI);
- Incipit;
- Type (Rondeau, Sonnet);
- Rhyme scheme; and
- Editorial note.

### Witness Poems

- DMS URI;
- Incipit;
- Repository;
- msName (the name of the manuscript from which the poem comes); and
- Editorial note.

### Named Contributors

- DMS URI;
- Virtual International Authority File (VIAF) URI; and
- Name.

### Named Contributors (For complete iteration of manuscript in graph form, see figure 3)

- DMS URI.
Methodological conclusions: Remodelling and confirming

Happily, as we tested the database, the graph confirmed what we already knew about the manuscript: Margaret Douglas and Hand 8 were the most prolific contributors; Thomas Howard used a different hand to copy poems than he did to add ones that are unique to the manuscript (suggesting, perhaps, that we cannot expect to find witnesses to them); and that 45 of the poems have no witnesses. The database proved a useful tool in the visualization of the manuscript contents and its antecedence, as we took up, in the context of unidentified hands, Baron’s (1994) questions about the interrelation of hands and what can be learned about the contributors. By putting the manuscript, its contributors, and its witnesses into the database, we were able to visualize aspects of the MS in ways that previous iterations of the Social Edition of the Devonshire Manuscript could not. It allowed us to take a step back and isolate each unnamed contributor and each poem they contributed to, in order to look for contribution patterns that would have been much harder to access via the online, print, or TEI-encoded versions of the text.

Already the database suggests new research questions, including why a particular Geoffrey Chaucer poem was so popular in a manuscript otherwise so thoroughly devoted to Wyatt; or what the fact that Hand 1’s version of “My harte I gave the not to
do it paine” attracted so many annotations from contemporaries, when Hand 8’s version of the same poem has no additions by other hands (see Figure 4).

Figure 4: “My harte I gave the not to do it paine,” Hands and Witnesses

The current version of the database was particularly useful for drawing conclusions about which contributors were musically inclined and which poetic forms most interested the contributors. When looking for patterns in the musicality of various contributors’ choices, we drew on keywords (lute, sing, and song) that Heale (2012) has argued were signs that a poem was meant to be sung (see Figure 5). Heale posits that musicality in Henrician courtly verse has been often ignored in modern scholarship. Numerous times throughout the manuscript, contributors mark certain poems with annotations along the lines of “learn but to sing it,” which, according to Heale, denotes the poems’ musicality (Heale, 2012, p. 10). Furthermore, many of these poems may have been written with the intent to be sung and or performed to the tune of songs that may have been in vogue in the day (Heale, 2012). This allows us to view potential references to music by the unnamed contributors as a sign of their engagement in music or poetry composed in a musical tradition (see Figure 5).

Figure 5: Musical poems with keyword “lute”

Hand 1 entered Wyatt’s poem “My lute awake performe the last labor.” The poem differs from Wyatt’s original, switching from second person at times to third person that Siemens, Armstrong, Crompton, & The Devonshire MS Editorial Group (2016d) claim “depersonalizes” the poem, which perhaps decentres Wyatt, focusing instead on the contributor who transcribed and altered the poem – especially if he or she performed the poem as a song. Hand 1.1 entered a poem entitled “blame not my lute for he must sownde,” also a Thomas Wyatt poem, which was later set to music. Hand 3 entered a poem, “Hey Robyn Ioly Robyn tell me and thys,” which due to repeating lines was thought to be an adaptation of a song by a courtly musician William Cornish (Heale, 2012). Hand 6
entered a poem entitled “Syns so ye please to here me playn.” Winifred Maynard notes that this poem’s ability to be sung to the tune of “fforget not yet the tryde entent” (Siemens, Armstrong, Crompton, & The Devonshire MS Editorial Group, 2016a). It is no stretch to confirm Heale’s (2012) suggestions about the importance of music to the Henrician court and to the contributors to the Devonshire Manuscript.

When searching for the contributors who commented on sonnets rather than on older poetic forms, we queried the database for contributors with a transcribed relationship to poems with the type property value sonnet (see Figure 6). This helped us work out some of the cultural engagements of the unidentified hands. Hand 2 records a number of Thomas Wyatt poems and shows an interest in this turn toward the newly popular Petrarchan sonnet. According to Heale (2012), it is clear that Hand 2 had a “confident knowledge” (p. 19) of the poets he or she entered. This could mean that Hand 2 was either better educated than other contributors or had a greater interest in contemporary poetry.

Figure 6: Sonnets
According to Baron (1994), Hands 4 and 8 had access to early drafts of Wyatt poems: the forms of these poems in the manuscript are consistent with pre-canonized versions of them found elsewhere. Hand 5 enters in revised versions of the same poems that Hand 4 and 8 have entered. In the back of the manuscript, Hand 8 has written stanzas from William Thynne’s edition of Chaucer (Heale, 2012). We also know that Thomas Howard entered lines of Chaucer into the manuscript and thus, similar to Hand 8, showed interest in medieval verse.

Even poems that were thought to have been entered in the voice of a woman could simply be an example of a “response poem,” a courtly poem that is written by a man in the voice of a woman in response to a poem written to that woman (perhaps even by the same poet) in the voice of a man. Hand 7 has copied most of the Edmund Knyvet poems in the manuscript. As Heale (1995) and Baron (1994) have pointed out, Margaret Douglas and Mary Shelton, among others, also annotated and responded to the manuscript’s poems, some of which are rewritten to be from a woman’s perspective, which combats Knyvet’s misogynistic content.

Creating a graph of the relationship between the poems, witnesses, and contributors to the manuscript made it easier to find relationships between poems and to cluster them based on the use of the lyric-I. It also helped us see patterns in the poems’ musical engagements and the uptake of newly popular sonnet forms. That said, the particularities of the courtly love tradition, such as the response poem, make it difficult to deduce the sex of the writer or to support or question assertions about contributors’ sex based on their handwriting or spelling. However, as we seek to expand our understanding of the manuscript, and the courtly community it represents, it is worth the attempt to shift scholarly attention from the minority named to the majority unnamed hands in the Devonshire Manuscript.

References


