Accounting for Accounting:
REED London and the Development of a Financial Transaction Encoding Schema

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The REED London project is a large-scale collaborative project that involves researchers from Bucknell University, the Canadian Writing Research Collaboratory, the University of Toronto, and Newcastle University in the UK, among others. Our aim is to make publicly available an expansive corpus of documentary evidence of performance, music, and theatre in London from 1200 to 1650 and to create a comprehensive digital resource that incorporates not only the excerpted, transcribed and encoded documents that recall not only the performance events, but also the business transactions that made those events possible, and the people and organizations that are associated with them.

The goal of REED London is to pull the records that are London-centric in TEI format into the CWRC Virtual Research Environment, and thereby share our analysis of the documents as well as to encourage other scholars and students to participate in further research.

The REED London emanates from the Records of Early English Drama - a massive research project now in its fourth decade - whose mission is to discover documentary evidence of performance, theatre, and music in England, Scotland and Wales from 1100 to 1642. REED London is fortunate in that the first phases of our project are based upon the already published excerpts of archival documentary materials, drawing upon legal proceedings, household financial accounts, ecclesiastical and municipal business reports, and correspondence from the REED: Inns of Court, REED: Ecclesiastical London, and REED: Civic London to 1558 collections. Over the past four years we have begun to work through the tens of thousands of references ranging from a single line tracking payment for the torchbearer who lit the way for a group of masquers to long-form excerpted letters describing Christmas revels at Court. Based on this scoping work, we have identified chronological and event-oriented sections of records that we think will begin to provide us with useful pathways forward as we spread further and involve more researchers with different interests in this subject matter.

And yet, we are not satisfied with just reproducing remediated transcribed excerpts and editorial apparatus generated by (truly remarkable) scholars of theatre history. By encoding and analyzing these historical documents we are discovering new connections among London citizens and the business of performance as well as the productions themselves. We are
interested in pursuing new modes of inquiry, and thinking about how we can be more fluid and interactive in our analysis of the materials. To that end, Charlotte Simon, an undergraduate researcher at Bucknell University (US) has been working with Diane Jakacki (PI, REED London) to think about how we can follow new pathways revealed to us through these records. In particular, we have been focusing on questions to do with revealing information about financial transactions that hasn’t been made explicit in traditional printed forms, and are using a subset of the records that capture the transference of funds (in terms of goods, services, and the obligations undertaken by communities to underwrite performance costs). Considering the complex accounting methods employed by different communities, we have established a model that allows for extraction of meaningful information across subsets of the data, while maintaining the rich meaning behind the documents. Over the past eighteen months, Simon has developed a custom schema in TEI that distinguishes data from the ‘readable’ records as presented in CWRC. This encoded information is then converted into tabular format, for the purpose of analyzing the data both numerically and textually using Tableau data visualization software. The conversion is important because it enables researchers to interrogate the records for both the tracking of financial transactions and the semantic context within them.

To date, we have focused on records from Middle Temple, Inner Temple, and Lincoln’s Inn (London’s legal fraternities that funded various types of performances), and in particular the time slice from 1612-34, which saw the performance of politically-important and expensive masques presented at the royal wedding celebrations. In doing so, we have tested hypotheses including whether we could detect spending patterns within specific inns within and across years, and reveal performance payment references that might otherwise be missed due to peculiar obscure vocabularies employed by different record keepers. We have discovered that through this type of analysis we can also pursue more nuanced questions about the business of performance; for example:

- How did each inn collect funds to pay for these events?
- Were there spending patterns for performances within and across years?
- Were some inns more likely to invest in performance than others?

Ultimately, we want to be able to apply this approach to the broader corpus of REED London records, examining documents related to ecclesiastical communities, guild companies, the aristocracy and nobility. To date we have completed the extraction of accounting data for the four major Inns of Court, and are in a position to demonstrate, through dynamic graphs, not only the results of our preliminary work, but also to provide a mechanism whereby we can work with other researchers so that they can ask their own questions of these texts.
After working in CWRC-Writer to focus on semantic tagging of the documents we decided to switch back to the Oxygen code editor in order to create a system loosely based on typical accounting practices, with expenditures and receipts of money being recorded as debits and credits. However, in order to maintain the complexity of the transactions, we decided to add a ‘category’ section which made it possible to categorize different types of transactions beyond whether money was flowing in or out of the organization. The initial categories just covered goods and services, but we later added an obligation category which further accounted for taxes, loans and other fees associated with membership to an Inn and the financing needed for their activities.

Within the schema, each document is treated as its own entity with individual transactions recorded in the document existing under the umbrella of that entity. A single entity can have multiple transactions, all of which have their own date, payer, payee, category and payment type individually recorded. However, having all of the individual transactions associated with those from the same document recorded together makes it easier to analyze specific trends and other oddities that may be related to a specific document (i.e. the habits of an accountant that may not be generalizable). This schema makes it possible to explore the habits of specific Inns, specific dates in history or trends when it comes to financial transactions regarding any number of topics.
Item paid for two staff torches the same day in the amount of 24 pence by Inner Temple.

Item paid to John Hopper for the musicians fee on Alhallowtide day 1616 in the amount of 240 pence by Inner Temple.

Item paid for the musicians fee on candlemas day in the amount of 160 pence by Inner Temple.

Item paid to Francis Lowndes for the hire of naperie and plate on candlemas day in the amount of 320 pence by Inner Temple.

Item paid to John Hopper for the musicians fee on candlemas day in the amount of 240 pence by Inner Temple.

Item paid for two staff torches candlemas day in the amount of 24 pence by Inner Temple.

Item paid to Mr Brownlowe [of the bench] for money borrowed towards the charge of the barriers in the amount of 12000 pence by Inner Temple.

Item paid to Sir Thomas Coventry for money lent towards the barriers being part of debt of fifty pounds in the amount of 4800 pence by Inner Temple.

Item paid to Sir Thomas Coventry in the amount of 7200 pence by Inner Temple.

Item paid to Mr Martin [of the Middle Temple] and Giles [a Taylor by the appointment of Mr Jorden] in the amount of 9600 pence by Inner Temple.

Item paid to Richard Mayer for collecting
of the barriers money in the amount of \(<\text{measure n="600"} > 600 \text{ pence}\)\) by \(<\text{persName ref="#payer"} > \text{Inner Temple}\)\)


While each transaction does have further descriptions regarding the transaction recorded in the code, only the numerical and categorical data tends to be pulled for our analysis. The ‘category’ identifier makes it possible to categorize the data without having to look through the minutiae of the recorded transaction itself.

Illustration 4: Payments by all Inns of Court over 20 years (in Tableau)

This chart demonstrates the trends of expenses for performances over the years, with spikes occurring in the years surrounding masques being held.
Illustration 5: Breakdown of expenses by all Inns of Court between 1611-20 (in Tableau)

These pie charts show the proportion breakdown for different types of expenses surrounding the Wedding Masques of 1613. In the time leading up to the performances, goods and fines occurred with greater frequency, while in the years following them there was a higher proportion of spending on the repayment of obligations.

Illustration 6: Breakdown of all payments by year and by Inn (in Tableau)

This illustration is a visual representation of the total financial transactions undertaken by the various Inns over the years.

The plethora of accounting records available to us, means that we are in a position to begin to test hypotheses against different metrix - can we find similar patterns in London’s Ecclesiastical community? What about the livery companies? In the next year we will move beyond the work that Simon has begun and test hypotheses using the two other printed collections. One hope that we have coming away from this conference is that we will begin to find other researchers
working on London business (not necessarily performance) in the pre-modern period to see how broadly this approach can be applied to other projects.

Thank you.

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