Rethinking Project Principles for Cross-Project Interoperability: Towards Claiming and Qualifying “Equivalence”

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1 Overview

Over its twenty-two-year history, MoEML has developed a historical placeography with over 1700 unique locations either from the early modern period or remembered in early modern documents. A place’s unique project-specific identifier and authority name signifies its uniqueness within our project’s conception of place in early modern London. If a place has its own identifier, then, according to our document structure, it is not the same as any other location in our placeography. Individual places and their data are encoded and made analyzable by means of the unique identifier, which is assigned a corresponding URI. Characteristics of a given location are either encoded in our TEI-XML or in the prose descriptions that are visible to users of the site on the location’s respective page. The aggregate of these characteristics collectively determine the uniqueness of each place (thus justifying the unique id), but not all of this data is readily encodable. Out of the aggregate of platial characteristics that determine the uniqueness of a place, what are the basic conditions of platial uniqueness and how might they be encoded? When the timbers of the London playhouse known as The Theatre are moved and used in the construction of another playhouse, The Globe, certain important characteristics change (most notably, location), while
others (function, principal occupants, and building materials) remain the same. Which of these changes (if any) warrant a separate unique location? What about when the royal palace of Bridewell is repurposed as a hospital and prison, or when a church is appropriated by the crown and rededicated?

The move to inter-project data operability makes the codification of platial uniqueness particularly pressing. If one project assigns two separate locations where a different project assigns one, then the alignment of the two projects’ data is only useful insofar as the temporal boundaries of platial equivalences can be determined. The process of aligning our placeography with RLO’s data and the prospect of massively increasing the interoperability requirements on our data with LINCS have demanded we determine these essential characteristics and make them encodable. To do this, we have retroactively codified the longstanding practices that have guided MoEML’s decisions about platial uniqueness. Strictly codifying the project-internal parameters governing platial uniqueness will allow for more flexible engagement with our data across other projects. Even if relationships of identity cannot be expressed with the blunt sameAs relation, more nuanced statements of identity depend on determining the characteristics that make the entity on either side of the relation unique.

Sections 2 and 3 present respectively the findings of the retrospective codification of MoEML’s project-specific conception of platial uniqueness and an applied example. Section 4 overviews the limitations and the future directions that emerge out of this investigation as they pertain both to Linked Data and to geographically focused digital humanities research.
2 Approach

The aggregate of properties of a location can determine its uniqueness, but a subset of those properties are the fundamental determinants of the place’s identity. These properties are therefore essential to the identity of the place, as opposed to the remaining accidental properties. A change to the essential properties is a change to the identity of the place as a whole. After reviewing the representation of early modern place in the primary sources governing our project scope,¹ we determined that a location in the MoEML project scope has two essential characteristics: function and coordinates. A place may change name, owners, building material, occupant, and design without changing its identity (i.e., while keeping the same URI). Only changes to function (defined as the aggregate of a location’s place types from our placetype taxonomy) and coordinates (the spatial position of the location) are considered essential changes to the location and result in a separate location with its own URI. If a building moves, we assign the moved location a new URI authority name (differentiated from the previous one by a parenthetical street name or ward name). Similarly, if the function of a place changes (e.g., from a residence to a hospital), then the two locations are each assigned their own URI.

This seemingly straightforward determination of the essential properties from the accidental properties of a location can be obscured by the fact that other accidental changes such as to name or ownership will coincide with a change of function. The transfer of ownership of Bridewell from the Crown to the City of London also marks its change of function from residence to prison/hospital. However, the ownership is not in itself essential. A property

¹ These include the 1598, 1603, 1618, and 1633 versions of Stow’s Survey of London; the Lord Mayoral pageants between 1585 and 1639; and our library of proclamations, civic processions, and dramatic extracts.
may change owners, as does, for example, St. Bartholomew Hospital when it is appropriated during the dissolution and then granted to the City, without changing identity. A change in name may strongly suggest a change in identity, but only changes to function and coordinates are deemed essential.

Comparing coordinates across projects should present few barriers for establishing equivalence between places in different project ontologies. Conceptions of coordinate position are unlikely to differ widely across projects. One project may have more precise coordinates, but a project’s range of precision can be easily accounted for, and the more precise coordinates of one project can be used to enhance the coordinate date of the other project.

Function, however, presents a wider range of differences among projects’ conceptions of platial identity. For example, MoEML does not differentiate between the religious hospitals of the medieval period that persist up until the dissolution of the religious houses, after which they begin to be converted into what will develop into the modern hospital. Although the function of St. Bartholomew’s Hospital by 1800 would be significantly different from its function in 1500, our project’s temporal scope (whose upper bound is 1666) and the early modern conception of the continuity between the two general hospital types permit that we use one place type to cover London’s hospital system. However, a project with a broader temporal scope will likely need to distinguish modern hospitals from their medieval predecessors. Such a project (if it were to consider function to be essential) would have two hospitals where MoEML only has one. A claim of equivalence between these entities would therefore need to be qualified by the time period under which MoEML’s St. Bartholomew’s Hospital is equal to the other project’s two different entities.
3 Example

Bridewell Palace was a residence that came into the possession of King Henry VIII in 1515. It is therefore listed in our placeography as a residence, Bridewell Palace (https://mapoflondon.uvic.ca/BRID11.htm). The site was granted to the City of London in 1553 and then converted into a hospital/prison. We therefore have a new location for this site, Bridewell (https://mapoflondon.uvic.ca/BRID2.htm). The place only exists temporally (according to our ontology) so long as it satisfies its essential characteristics. Bridewell’s coordinates remain consistent across the 16th century, but the function change in 1553 marks the upper bound of Bridewell Palace and the lower bound (or inception date) of Bridewell. Any unqualified claim of equivalence between Bridewell Palace and a Bridewell from another project that encompasses the sites post-1553 existence will be false. The Wikipedia entry for the Bridewell site encompasses both the prison and the residence. To claim that the Bridewell entry in DBpedia is the same as MoEML’s Bridewell Palace is to misleadingly claim that MoEML's Bridewell Palace encompasses the site’s status as a prison. The only characteristics of DBpedia’s Bridewell that also apply to MoEML’s Bridewell Palace are those that characterise the entity up until 1553.

4 Limitations, Further Directions

The Dissolution of the Monasteries at the beginning of the English Reformation effected a large-scale change to London’s platial landscape and imaginary. Debates surrounding the
sacred status of the church buildings, the role of consecration, and the proper function of
church spaces in post-Reformation reveal the divergent range of conceptions of the identity,
mutability, and conditions of uniqueness for sacred spaces. With our broad-brush “church” and
“chapel” categories, interoperability with projects more narrowly attuned to ecclesiastical place
will require highly qualified claims of platial equivalence. This is an area where future
collaborations with other projects, like our collaboration with RLO, promise to be particularly
fruitful. Our collaboration with Christopher Highley on the London Parishes Project is also going
to challenge our current platial categories by requiring us to distinguish the parish church (a
building) from the churchyard (the burial ground around the church building) from the whole
parish (the area in which parishioners lived). Signed locations like bookshops pose a challenge
to MoEML’s coordinate-dependent conception of platial identity. We may need to consider the
highly mobile shop signs as a place type with an exceptional set of uniqueness-determining
parameters. MoEML’s collaboration with Dr. Erica Zimmer’s work on the signed bookshops of
St. Paul’s looks forward to addressing these challenges.