Porous Borders:

Ambiguities, Uncertainties, and Gaps in Urban History, Identities, and Data

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Mobile Subjects: Contrapuntal Modernisms (1945-1989) investigates the circulation of artists from the decolonizing world through the colonial and artistic capitals of London and Paris. This tale of two cities considers how these capitals of decolonizing empires functioned as critical meeting places, anti-colonial hubs, and sites of exchange in the decades after World War II due to postwar mass migration. It proposes a new analytical model that sees metropoles not as points of origin or as global training grounds, but as spaces of intersection and flow that allow us to understand the transnational condition of modern art.

Working with data to visualize those artists who were "exceptional but not exceptions" (Spies Gans 2018) in the history of art, *Mobile Subjects: Contrapuntal Modernisms* trades in data that is not organized for or by the colonial archive. As a result, it is characterized by ambiguities, uncertainties, and gaps that cross borders and challenge definitions of nation, history, and identity.

Our team addresses various questions that have emerged from and revolve around these characterizations and challenges. On a broad level, we are concerned with the following matters: What causes or introduces the potential for ambiguities, uncertainties, and gaps in our data? How should we address such data in our visual models (Figure 1, Figure 2) and why (Drucker 2011, Gagliardi and Petridis 2022)? What biases exist in our data? How can our data modeling help us identify these biases (Drucker 2020, Sekelj 2020)?

Using a combination of network and spatial-temporal data modeling methodologies at the intersection of art practice and digital humanities, *Mobile Subjects* finds means of highlighting, rather than erasing, these uncertainties. This presentation proposes means of digital mapping and network analysis that work along and against the archival grain (Stoler 2008) to re-assess artists' global movements and the co-constitution of Modernism as a global phenomenon in a new light. This includes mapping movements, for instance, on an unorthodox cartographic projection to de-center Europe and highlight trans-pacific networks. The trajectories' visual representations are transformed too, rendering their connections as organic, indeterminate charcoal lines cut across by jagged, unpredictable spikes, affectively communicating their volatility over the course of the

20th century in a way that is difficult to capture with more commonly-used network-mapping tools (Figure 2).

Specific nuances surrounding the spatio-temporality of our models and the porosity of geographic and categorical borders have also emerged and evolved over the course of our project. Many of the researched artists are not bound within or defined by geographic borders, frequently crossing between locations for their artistic activities throughout their lives. Considering this, how does one register locational data for these artists? Furthermore, geographic borders are ambiguous, as they shift over time and are the subject of political contention. How can this be addressed in data models, particularly those that are created using conventional digital mapping tools (Risam 2023)? How can we render the multilingual dimensionality of our data set into the model? Another critical factor in our project is temporality (Drucker 2011). Dates are crucial to the rise of plausible connections between artists. How can we visualize time-based data that is inconsistent and vague (such as *ca. 1955*)?

Addressing these research questions, this project uses open-source graphics and animation tools (i.e. Blender) not typically used in Digital Humanities for data visualization, broadening the conventional aesthetic language used to convey absences, ambiguities, and multiplicities in the dataset. Using Blender's robust toolset, for instance, each node's visual characteristics — opacity, texture, its 'visual noise' — can be generatively mapped onto the dataset's variables, encoding seemingly decorative visual qualities with quantitative or qualitative meaning. Using a toolset customarily designed for artistic, rather than analytic tasks yet with robust script-based capabilities, this project visualizes the historical exigencies and lacunae that would otherwise be obscured by data modeling methodologies that use a sharper, more concrete visual language.

Mobile Subjects: Contrapuntal Modernisms also contends with issues that are particularly relevant across projects in the arts and humanities. The data within these disciplines tends to be based in textual rather than numeric information. To visualize such data, a problematic process of categorization is introduced (D'Ignazio and Klein 2020). Categorization becomes especially challenging when considering themes such as identity and self-identification. Platforms that are free and easily accessible do not provide sufficient options to counter the problems that arise when dealing with porous borders. Are there more feasible options for visualizing qualitatively complex data in the arts and humanities? What could these options look like? Considering data modeling and digital mapping through the lens of digital art practice, *Mobile Subjects* proposes new methods of envisioning global networks as well as absences, palimpsests, connections and uncertainties.

This paper will address these questions through select data samples and models that illustrate our aim to combine networks with spatio-temporal models, and our encounters, reflections, and decisions in light of ambiguities, multiplicities, uncertainties, and gaps. It will

conclude with a series of further questions that projects dealing with similar issues can consider to interrogate their own practices.

Figures

Figure 1: Screenshot of tooltip for Boris Lejeune in a prototype model for *Mobile Subjects: Contrapuntal Modernisms*. Rather than leaving fields blank or omitting them, question marks are used to indicate where information is unknown.
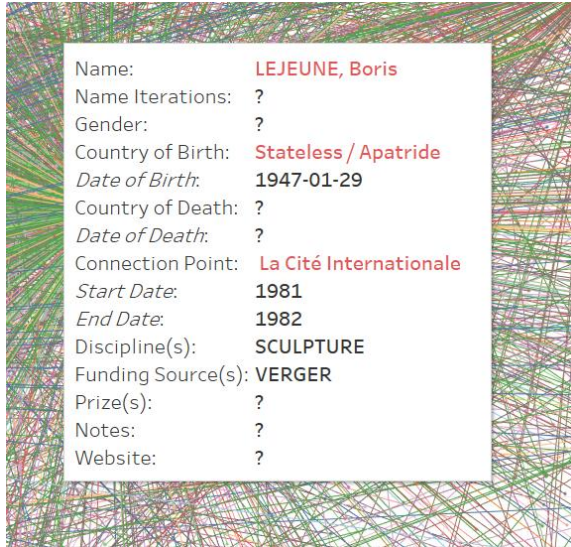

Figure 2: Video still from Pansee Atta's animated *Decolonial Slade* model, which connects global artists to the Slade School in London. The 'noise' or texture of connecting lines reflects the ambiguous nature of the data and the relationship between the artists and the Slade School.

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