The Z-Axis: Where Modernist Studies and Digital Humanities Meet

<slide 1: MVP and ML logos and UVic>Carrie, thank you very much for organizing this roundtable and for letting me part of this. I’m humbled to be here and excited for the discussion to follow. As an English literature graduate student, I have been fortunate enough to work with the Modernist Versions Project (MVP) and alongside the Maker Lab at the University of Victoria. Both the MVP and the Lab are influenced by, if not committed to interdisciplinary research methods that bring together more traditional literary analysis methods and emerging digital humanities methods. In the process, both the MVP and Lab promote collaboration and thinking beyond and between disciplines, in order to allow for new modes of inquiry into modernist literature, media, and cultural studies.

**<slide 3: outline>**And so I’d like to talk about one of the new modes of inquiry being explored by the MVP that arose because of this commitment to interdisciplinarity: Z-Axis research. What I’ll do is first explain what Z-Axis research is, then talk about the past, present and immediate future of the this very interdisciplinary project.

**<slide 4: research on the z-axis>** Dr. Jentery Sayers, head of the Maker Lab, writes that “…the Z-Axis initiative underscores the relevance of subjective encounters with data, with an emphasis on 3D modeling, prototyping, and desktop fabrication techniques.” And Dr. Stephen Ross, head of the MVP, describes this research as a combination of “literary analysis and desktop fabrication that allows us to ask how might our data be expressed, experienced, embodied, and felt.”

**<slide 5 : cat!>** Ultimately it’s an interdisciplinary, critical approach to modernist literature that brings together traditional literary analysis (close reading, theory, etc.) with mapping techniques, and digital humanities methods that include 3D modeling and print fabrication in order to make a critical argument the relationships between text, space, time, and in one instantiation, the reader’s experiences of a city in a given text. Moreover, it uses a kind of modernist aesthetics of remediation, distortion, and fragmentation of time and space in order to critique modernist the relationship between modernists texts and their cities.

**<slide 6: 1st map image>** I think the best way of explaining what Z-Axis research can be, is to show you the first instantiation of Z-Axis research conducted through the MVP and Maker Lab. What you see here is a 1925 map of Dublin that has been scanned and deformed using a 3D modeling software in order to consider a reader’s geotemporal experience of Dublin through Joyce’s Ulysses. The mounds that you see here the reader’s geotemporal experience of the novel by mapping the word count in Joyce’s *Ulysses* locatable in a region of Dublin.

**<slide 7: data>** And here you can see our data model for the word count per location. We did our best to figure out where events were in the text and then did a word count to see how many words were spent in the area. And from there we divide that by the total number of words in the book to get the ratio. So for example roughly 30262 words or roughly 13% of the words in the novel are “spent” at 7 Eccles Street.

**<slide 8: map>** My colleague Alex Christie took that ration (roughly .13), and, using the 3D modeling software Mudbox, raised the area on the map accordingly in order create the mound we see on the map a the very bottom, here.

So what was made very clear early on was that, of course, the reader gets a very limited view of Dublin, that they are disproportionately located in just a handful of areas, and that the reader’s temporal experience of Dublin is quite different from the temporal experience of space by the characters.

**<slide 9>** Anyway, after we came up with this 3D model that embodied our inquiry and argument for the modernist aesthetic of distortion of time and space in Ulysses, Alex took the model one step further and created what he termed data tornadoes. These tornadoes are just high resolution images of the map we looked at earlier, but because it is a high resolution image, it shows the grooves of the streets and fragments the mounds accordingly. So where the mounds reveal a deformation of a map by the text, the tornadoes as you can see here, not only deforms but actually embodies a modernist and kind of cubist aesthetic and fragments the maps using the data sets we’re looking at. Moreover, the cityscape itself, through the grooves the streets make in the landscape distort and fragment the data mounds.

**<slide 10>** So that’s where the Z-Axis research was. The Z-Axis research undertaken by the MVP and Maker Lab will focuses on geospatial versioning, or comparing of modernist cities as represented by modernist novels in order to show how cities, such as Dublin and London, morph from text to text. So a question we could explore through these models might be how do *The Secret Agent, Mrs. Dalloway,* and *The Heat of the Day* construct London differently? One of the reasons to create and compare such models is that these models embody the argument that cities themselves become malleable and transform. These models will hopefully show that cities are not static or purely objective entities, but are written, and read, and interpreted. And by embodying and then comparing these versions of cities, we can see and even feel the way literary modernisms were not simply influenced by these major cities, but helped to create these cityscapes as well.