**Invisible Cities Network Analysis Exercise**

**Overview**

“Only in Marco Polo’s accounts was Kublai Khan able to discern, through the walls and towers destined to crumble, the tracery of a pattern so subtle it could escape the termites’ gnawing.”

-Italo Calvino, Invisible Cities

For this exercise, you and your groupmate(s) are going to look at the “pattern[s] so subtle” in Invisible Cities by using a very basic network analysis to examine Calvino’s work and by creating your own (experimental) network. The intention of this exercise is to teach you about the very basics of network analysis, as well as give you more insight into data visualization, data structuring, and to show you how categorizing/coding data, like reading, can be an act of interpretation. (Optional reading: Scott Weingart’s “Demystifying Networks.” <http://scottbot.net/lets-talk-about-networks/>)

The tool you will be using is Stanford University’s Palladio: <https://youtu.be/nUUVgWxeATs>

From the video, you can see that Palladio was created for humanistic inquiry, with that inquiry being originally historical in nature. This is something to think about since we are instead using the tool to assist with a literary text analysis and, thus, we are “bending” the tool to suit our purposes. This bending speaks to the way that quantitative tools and data can be used imaginatively and illustrates the fact that digital tools are not limited to being “blunt instruments,” but instead can be used in more nuanced and creative ways.

Network analysis is a form of data visualization that explores connections and relationships. What makes it well suited for Invisible Cities is the book’s overt structure. As if asking for such an analysis, the text is already categorized and structured. There are the numbers, the ones that divide the book into sections, and the numbers that code what might be considered chapters. Then there are chapters labeled with words like “Memory” and cities labeled “Thin,” “Continuous,” “Hidden,” and so forth. Through this structuring and categorizing, Calvino has made his book into a system, meaning an “organized group of like things…a scheme…a group of categories in paradigmatic relationships…an orderly method of procedure…a method or scheme of classification,” and the like (Oxford English Dictionary). This system found within the design of Invisible Cities is matched by the book’s themes of empire, cities, and language, which too are systems. Thus, Calvino seems to be inviting the reader to think about, engage with, and question systems on both a physical and metaphysical level. With this exercise, we are taking Calvino up on the invitation.

**Instructions**

**Step 1:** Working with your groupmate(s) you are going to finish structuring Calvino’s “data,” which can be found in this google spreadsheet. Cut and paste it into your own spreadsheet. (I recommend using a google one, since they are easy to share.) You will need to come up with attributes, for each column that describe the numbers and other elements. For the third column, you need to add the chapter-like numbers. You are also welcomed to restructure the data.

One important thing to keep in mind is that if you want to be able to visualize the relationship between the section numbers and the chapter-like numbers, you are going to have to distinguish the numbers from each other. In my version, I put a “ch” before the chapter number, so it looks like ch1 for chapter 1. You will need to do something similar.

**Step 2:** Using Palladio, explore the “dataset” and respond to the prompt below.

The following video demonstrates how to work in the tool and uses attributes I chose, so it will look a little different than yours. (A video was created for the original assignment.)

**Step 3:** Respond to the following prompt (in 5-8 paragraphs):

In “Exactitude,” Calvino calls Invisible Cities “a many-faceted structure in which each brief text is close to the others in a series that does not imply logical sequence or a hierarchy, but a network in which one can follow multiple routes, and draw multiple, ramified conclusions” (71).

The exercise gives literal expression to this idea of the text as a “network.” Network visualizations are non-linear interfaces that allow us to explore and can help us understand Calvino’s use of structure and patterns, by visualizing different relationships among the components of the networks.

Choose a relationship that one network visualization illustrates, and read the text within that relationship, e.g., section and cities. You can choose just one unit of a relationship, e.g., section 4 and all of its related cities.

* How did viewing this relationship through the network analysis affect your reading process? What observations or questions were you bringing to the reading process that differ from your prior reading of the text?
* Discuss the impact of seeing a visual representation of networked relationships. Note any specific insights or general ideas that the experience provoked.
* Take screen shots of the one or two visualizations you found most revealing and explain what you gleaned from them in particular.