Script 2

[Start with a simple view (map and dots only) and explain what the viewer is looking at. Pan and zoom a little to show that it works like a typical map UI]

The cycles of urban renewal and decay are a natural progression for any city. You are looking at a map of St. Paul, and the dots represent locations of building vacancies (an indicator of decay), and approved building permits (an indicator of growth). Additionally, we are showing locations of demolitions, which can be seen as indicators of change and transition, for better or worse. These data were obtained from the city's data portal.

[Get their attention with a personal question]

When you are in a city, do you ever notice which areas are “hot” and which areas look like they have been neglected?

Wouldn't it be nice if the city you live or work in had more areas of growth and less areas of abandonment?

[WHY, with examples]

All cities experience areas of decay from time to time, although sometimes the decay leads to rebirth. The reason for our visualization is twofold: 1. So that governments can find correlations with other societal and economic factors, to help inform good policy that will encourage growth. For example, if a correlation is found that shows that building abandonment follows high crime incidents, then it would be easier to justify budgeting more for police force in those areas. On the other hand, they may find clusters of growth and then analyze what makes those areas desirable to cause people to want to make improvements.

2. And the second use is for people looking to invest in the city who may want to follow the growth trend. For example, a restauranteur might want to open up in a “hot” location rather than a decaying one. Or, they might want to buck the trend and invest in an inexpensive area before growth happens and raises property values too high to be affordable.

To facilitate those use cases, the goal of our visualization is to show off the decay and growth in a way that is easy for users to interact with it and find the trends and correlations they are looking for.

[Turn on one of the gradient layers and pan around to show the map]

In order to correlate these data with other datasets from around the city, we pulled in data from other sources. We have a heatmap of crime data by district in the city of St. Paul, which can perhaps give some insight into correlations between the urban cycle and community policing. The crime rates can be broken down by district as well as type of crime.

We have also utilized API data from popular real estate websites (specifically, Zillow) to determine property values, sales, and other data about specific properties that are in our dataset.

[Point out one or two areas of interest where we noticed a correlation.]

[Pan OUT to show the additional UI features]

Zooming out, you can see that a companion panel has controls to select which buildings appear by selecting them by city district. It also includes a simple bar graph to compare different districts with each other.

Explain highlighting by district.

[Implementation]

The visualization is dominated by a familiar pannable and zoomable geographic map of the city. It was created using a platform called Qlik, which generates a web app either as a cloud service or in a browser-based application on your computer. It uses two kinds of layers applied over the base city map. The first is a set of colored glyphs, indicating the categorical state of a building at a particular location, with the hue representing either vacant, demolished, or under construction permit. The other kind of layer is a gradient from light/unsaturated to dark/saturated indicating a quantitative value. Two such sources we have obtained are property value and crime rate, although others can be added later.

[Future]

In anticipation of making this visualization available to the public at the Bell Museum, we welcome all feedback and suggestions for improvement that would make this more useful.

Here are3 additional features we have discussed adding:

1. A timeline of events of buildings became abandoned, demolished, or rebuilt. This would allow the user to see all of the events in chronological order and, optionally, select a range of time to appear on the map. We have recently acquired a dataset that has this, but haven’t added it yet.
2. The ability to animate the map over time, to see the progression of change. The data set that is currently available to us goes back to the 1990’s.
3. Upgrade the location markers on the map, to either a more engaging representation, or to replace them with a gradient that is computed as the ratio of growth to decay.

“Thank you” for watching, and we look forward to your feedback.