VISUALIZATION
Theory | Method

To be rhetorically useful, then, as well as comprehensible, novelty must be situated. Rather than offering the radically new, it must occupy the border between the **known** and the **unknown**. —Carolyn Miller

Visualizations: What are we looking at?

To visualize is to make certain phenomena and portions of reality visible and understandable; many of these phenomena are not naturally accessible to the bare eye, and many of them are not even of visual nature.
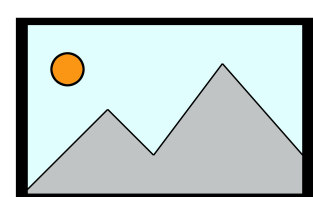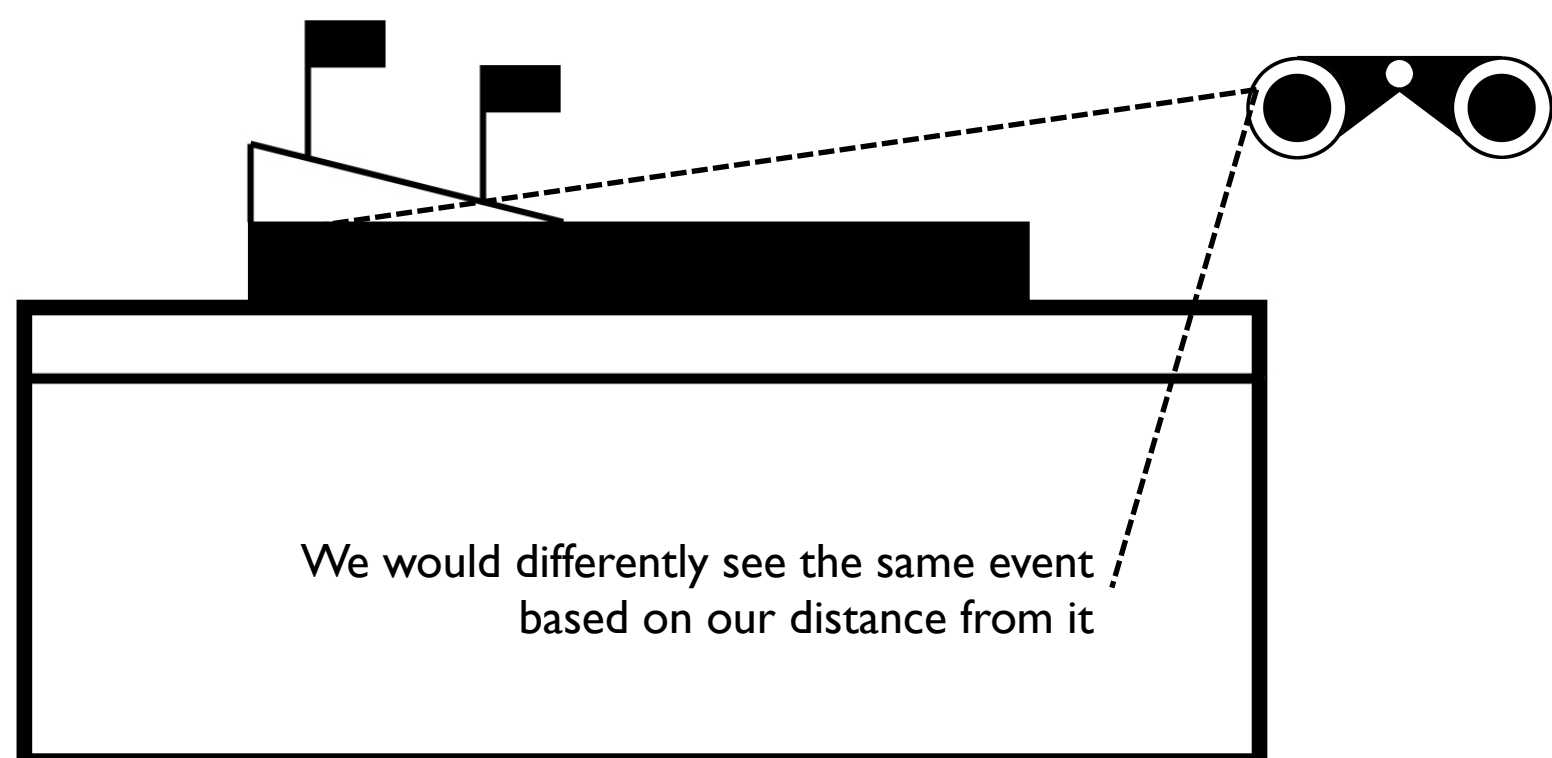
To create a visualization is to make some thing visible.
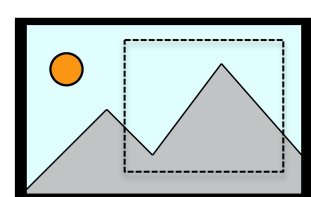
Theory as Method

Using visualizations can help us alter perspectives on data we already have, or notice non-visible phenomenon.

Think about sitting in the upper bowl at a sporting event:

Theory (theoria) is the perspective gained by altering scales of interaction. Method (meta|hodos) is a way toward something
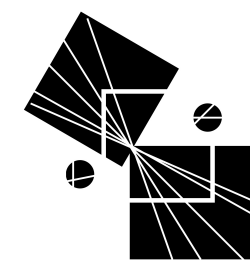
We would differently see the same event based on our distance from it

Our perspectives make possible ways of doing – ways of interacting with information. This is invention through visualization.
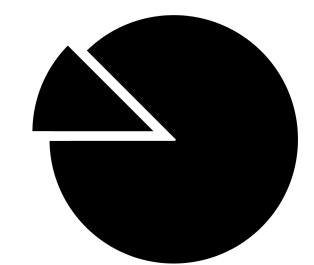
Visualizing the Non-Visible

Unstructured information → Data → Structured information

69.7
73.4
71.2

Every phenomenon that can be perceived or measured

Records of observations – numbers and words

Data is represented in a meaningful (patterned) way

Visualization Scales

Visualizations can be designed along scales of **depth** and **complexity** – related variables in infographics

abstraction---figuration
functionality---decoration
density---lightness
multidimensionality---unidimensionality
originality---familiarity
novelty---redundancy

Visualization as Invention: form and function

Tasks of Data in Visualizations: Invention

Present

Compare

Organize

Relate

Techniques for Invention: Visualizing

Visualize

Classify

plant Define

Rearrange

Divide

Theory as Method