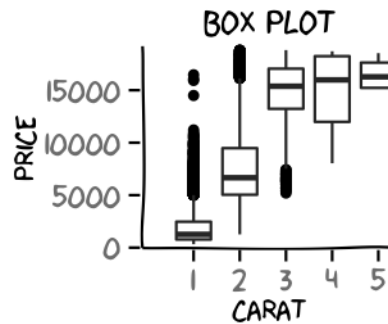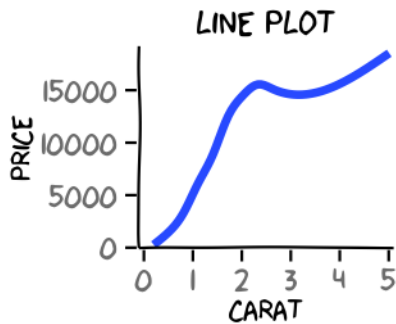# FIGURE LEXICON

What is a figure? If we imagine a **visualization** as a visual interface between the viewer and the data then a figure is a visualization selected to convey a specific **message(s)** present in the data. The lexicon presented below allows us to analyze and discuss the components present in the figure and their contribution to conveying the figure's intended message(s).

COMPOSITION

Visual information can frequently be represented in multiple ways; the choice of how to view this data is the composition.

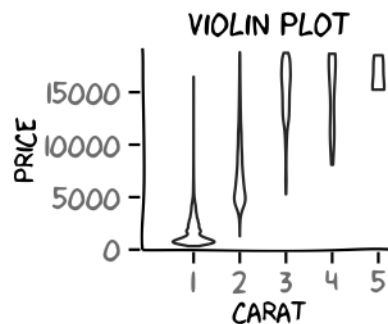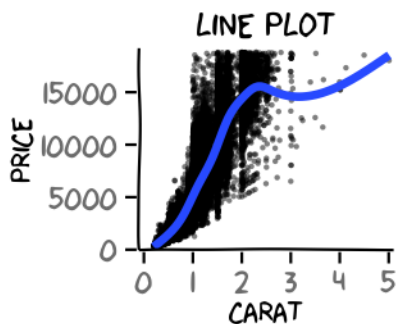*What is the best way to **compose** the image in order to represent the data?*

Example 1: Two examples of **compositions** that can be used to represent the same data; in this case the relationship between the carat and the price of a diamond.

Addt'l Compositions: bar plot, dot plot, density plot, violin plot

Message: The price of a diamond increases with size (carat)

DETAIL

The detail term reflects the amount information that is presented to the viewer. It is a delicate balance aimed at providing enough information to convey the message while limiting extraneous information that may detract from it.

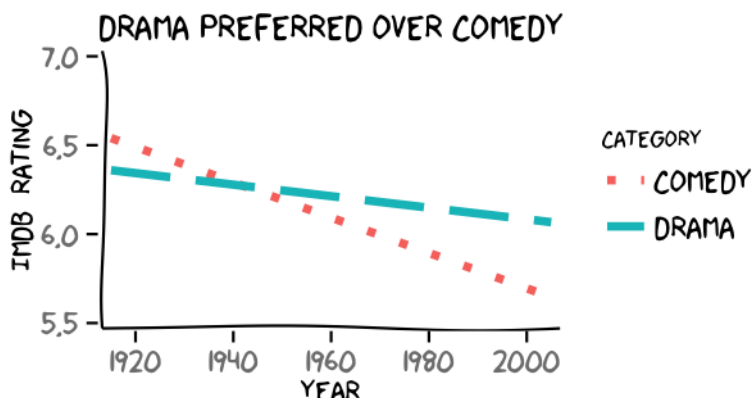*What is the level of **detail** required to convey your message?*

Example 2: The same examples as Figure 1 can be viewed with additonal detail. The line plot now has the individual points plotted, the boxplot has been converted to a violin plot (providing us with the additional detail of price distribution).

Does this additional detail contribute effectively to the message?

KEY FEATURES & GUIDES

Abstractly, key features are the ideas present in the figure that directly contribute to the message.

Guides are visual cues that direct the viewers attention to the key features.

*What **features** are **key** to convey the message of this figure? &*
*How do you **guide** the viewer to the Key Features?*

Example 3: The best way to understand key features is to determine which elements of a figure convey the intended message. In this example the most prominent key feature is the relationship between comedy & drama over time. The elements **color, line type, axis labels, figure title and legend** act as guides by directing attention and providing the necessary context of this relationship.