# **Beautiful Charts**

# Design principles for building aesthetic visualizations.

While beauty is in the mind's eye, one can achieve graphical elegance via several theoretically-informed principles, across four levels of aesthetics.

Principles assembled by Chris Zimmerman (visualize@google.com)

# ATTRACTIOI



ENCOURAGE THE EYE TO COMPARE DIFFERENT PIECES OF INFORMATION IN THEIR FIELD OF VIEW (TUFTE 1984, WARE 1999)



INVITE THE MIND BY PERSUADING PEOPLE TO SPEND TIME TO FULLY READ AND UNDERSTAND A GRAPHIC. (NORMAN 1988, 2014)



WORK HARMONIOUSLY, AS A COMPOSITION OF PLEASING ELEMENTS (SHAPE, COLOR, TEXTURE) THAT COMBINE IN A BALANCED ORGANIZATION (NORMAN 2014) THAT CAN EFFORTLESSLY CALM US (KIRK 2019)



SEDUCE CONCEPTUALLY WITH IDEAS CONGRUOUS TO THE SUBJECT MATTER, TEASING CLEVER COMBINATIONS OF FORM AND FUNCTION THAT CHARM US (KIRK 2016).

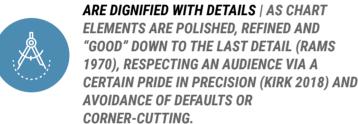
#### **ATTENTION**



DEFEND PRIORITIES WITH EACH PIXEL JUSTIFIED (TUFTE), AND EVERY AESTHETIC DECISION RATIONALISED WITH LOGIC (POSAVEC), IDEALLY WITH MULTIPLE JUSTIFICATIONS FOR FUNCTIONAL COSTS (FREDERIK 2007).



SIT GRACEFULLY LEVERAGING A
DELIBERATE VISUAL HIERARCHY THAT IS
CLEAR, COMFORTABLE AND PLEASING,
RATHER THAN CUMBERSOME (FREDERIK
2007) SHOWING RESTRAINT (KIRK 2019)





EXCEL IN EFFICIENCY BY GIVING THE VIEWER THE "GREATEST NUMBER OF IDEAS, IN THE SHORTEST TIME, WITH THE LEAST INK, AND IN THE SMALLEST SPACE". (TUFTE 1984).

### **FUNCTION**



NEVER FRUSTRATE THE TASK AT HAND BEAUTIFUL THINGS WORK BETTER (NORMAN 1988) BY BUILDING RESERVOIRS OF GOODWILL (KRUG 2018) TO KEEP USABILITY HEADACHES AT BAY.



EFFORTLESSLY CLEAR WITH DIRECT
AFFORDANCES (NORMAN 1988) NOT HIDING
WHAT YOU CAN/NEED TO DO OR MAKE IT
DIFFICULT TO DO SO (KRUG 2018) THUS
MAXIMISING EFFICIENCY, OUT OF RESPECT
FOR A READER'S ATTENTION.

## EMOTION



DELIGHT READERS WITH NOVEL METHODS FOR DISPLAYING A TOPIC THEY DESIRE TO LEARN ABOUT, TAPPING INTO EMOTIONS (NORMAN 2014), WITHIN BOUNDARIES OF UNDERSTANDING AND VISUAL LITERACY.



CAN BE UNPREDICTABLE AND COMPLEX | A SINGULARITY OF STYLE AND CHARTS IS A DULL INFORMATION EXISTENCE (KIRK 2018), WHILE COMPLEXITY CAN CARRY ITS OWN BEAUTY (LIMA 2011)



EXUDE A NATURAL BEAUTY APPEARING TO BE BUILT BY A HUMAN DESIGNER, RATHER THAN READERS BEING ABLE TO TELL WHICH TOOL WAS USED TO MAKE IT. (CAIRO 2019)



BUILD TOWARDS A SENSE OF STYLE BY CONSISTENT ADHERING TO ONE'S OWN UNIQUE AESTHETIC RULES THAT ATTRACT READERS IN A GIVEN DOMAIN (KIRK 2018).

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