

# 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)

### VISCERAL

#### ATTRACTION



**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).**

### REFINED

#### 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)**



**ARE DIGNIFIED WITH DETAILS | AS CHART ELEMENTS ARE POLISHED, REFINED AND "GOOD" DOWN TO THE LAST DETAIL (RAMS 1970), RESPECTING AN AUDIENCE VIA A CERTAIN PRIDE IN PRECISION (KIRK 2018) AND AVOIDANCE OF DEFAULTS OR CORNER-CUTTING.**



**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).**

### ACCESSIBLE

#### 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.**

### UNIQUE

#### 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).**