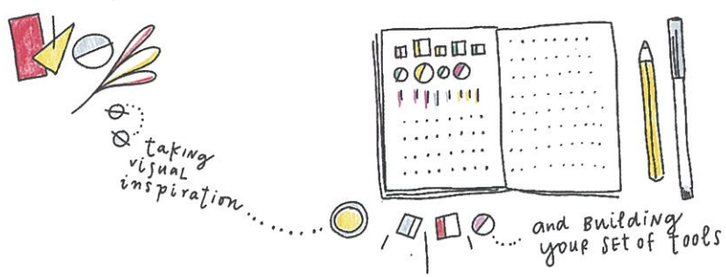
LEARNING TO SEE

OVERCOME YOUR FEAR OF THE BLANK PAGE WHILE LEARNING MORE ABOUT USING DATA AS A MATERIAL.

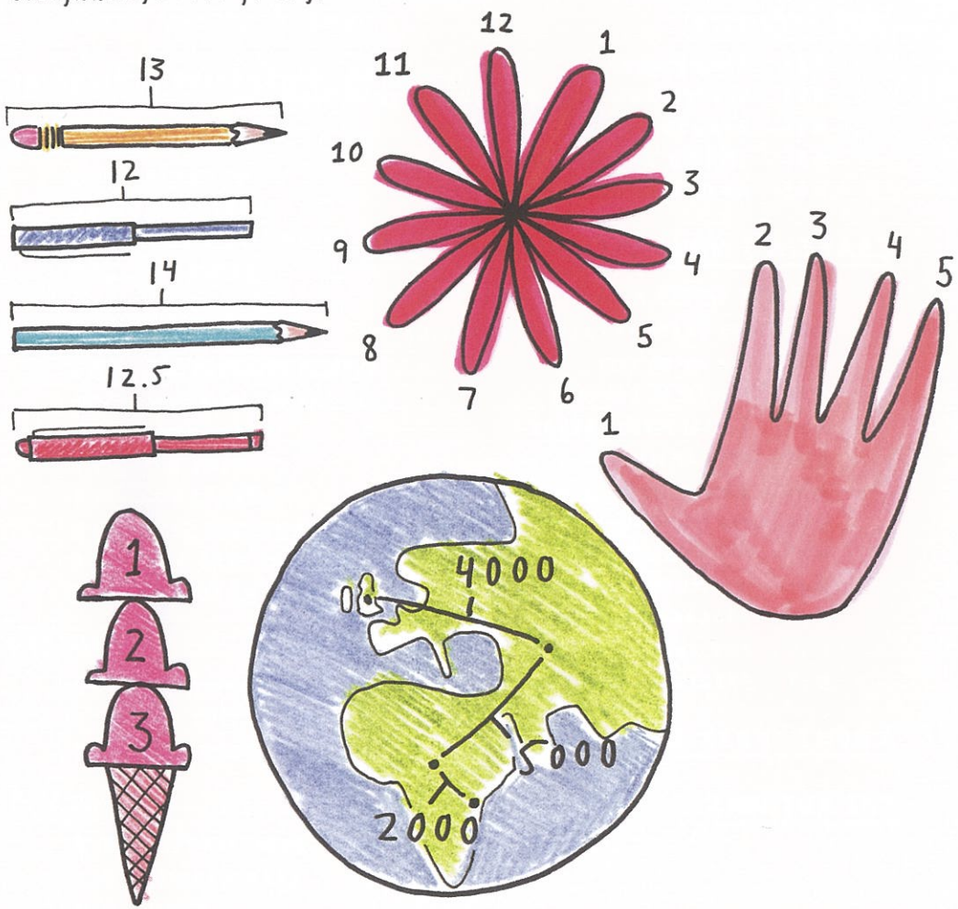


INTRODUCTION

WHAT IS DATA?

Every plant, every person, and every interaction we take part in can be mapped, counted, and measured, and these measurements are what we call data.

Once you know how to find these invisible numbers, you begin to see these numbers everywhere, in everything.



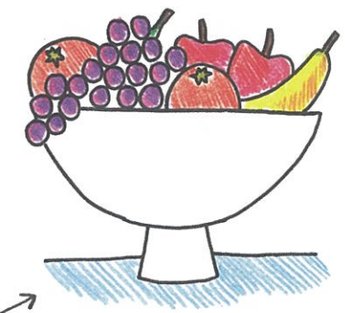
WHY DOES IT MATTER?

DATA COLLECTED FROM LIFE CAN BE A SNAPSHOT OF THE WORLD IN THE SAME WAY THAT A PICTURE CATCHES SMALL MOMENTS IN TIME, AND IT CAN BE USED TO DESCRIBE THE HIDDEN PATTERNS FOUND IN EVERY ASPECT OF LIFE, FROM OUR DIGITAL EXISTENCE TO THE NATURAL WORLD.

BY SEEING THE WORLD THROUGH THE LENS OF DATA, AND SKETCHING THE PATTERNS YOU DISCOVER IN THE DETAILS OF YOUR LIFE, YOU CAN ENCOURAGE YOURSELF TO NOTICE MORE CLOSELY THE LIFE UNFOLDING AROUND YOU, AND BECOME MORE IN-TUNE WITH YOUR WORLD AND YOURSELF IN THE PROCESS.

PAINT, PAPER, CLAY... AND DATA!

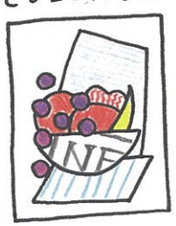
For centuries, artists have used paper and pencils to sketch the life unfolding around them, but in the digital age, data has become a creative material like paint or paper, offering a new way of seeing and engaging with the world.



PHOTOGRAPHY →

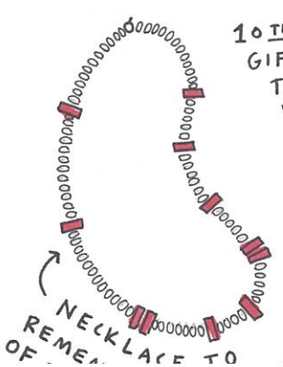
PENCIL →

COLLAGE →



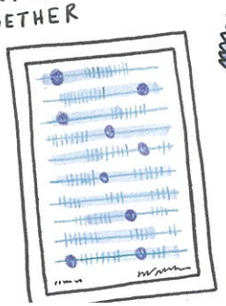
DATA!

You can use your data as a starting point not only for drawings and discovery, but also in other creative projects, such as jewelry, gifts, textile patterns, sculptures, and more!



NECKLACE TO REMEA... OF...

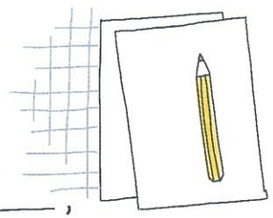
10TH ANNIVERSARY GIFT OF OUR LIFE TOGETHER →



TEXTILE DESIGN DOCUMENTING LOCAL WEATHER

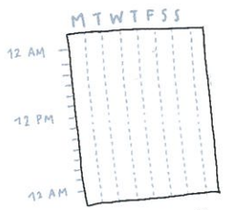
FINDING FREEDOM IN CONSTRAINTS

AFRAID OF THE BLANK PAGE?
DRAWING WITH DATA WILL FUEL YOUR CREATIVITY.
AFTER YOU ESTABLISH A SET OF RULES, EVERY SYMBOL, COLOR, PATTERN, OR LINE WILL BE GUIDED BY SOMETHING YOU HAVE NOTICED, COUNTED, AND CATEGORIZED.

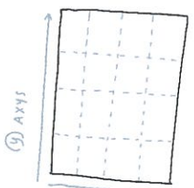


"IF _____,
THEN I WILL DRAW _____"

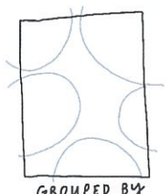
RULES FOR ORGANIZING MY DATA ON THE PAGE:



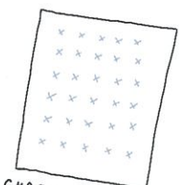
CHRONOLOGICALLY, DAYS and HOURS



ACCORDING TO 2 PARAMETERS

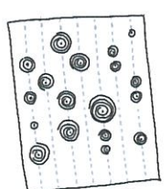


GROUPED BY TYPE

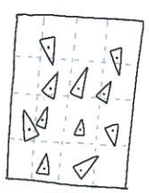


CHRONOLOGICALLY ONE AFTER ANOTHER

RULES FOR THE MAIN SHAPES FOR MY DATA:



THEIR SIZES

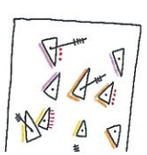


THEIR ROTATION

THEIR CONNECTIONS

THEIR COLORS

ADD COLOR-BASED RULES FOR THEIR ATTRIBUTES:



BUILD YOUR OWN VISUAL VOCABULARY

DID YOU KNOW THAT EVERYTHING YOU SEE AND LIKE CAN BECOME DESIGN MATERIAL FOR YOUR DATA?

COLOR VARIATION

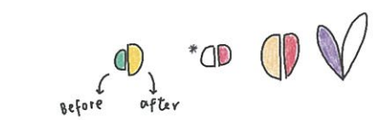
TO INDICATE GROUPS OR CATEGORIES OF ELEMENTS

SYMBOL VARIATION

TO INDICATE DIFFERENT INSTANCES OF THE SAME TYPE WITH TINY EXTRA SYMBOLS TO REPRESENT A SPECIAL ENTRY

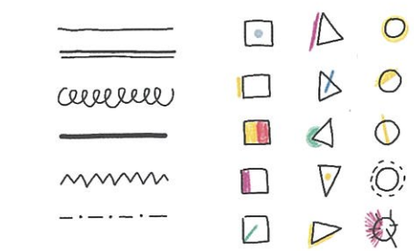
THICKNESS and LENGTH

TO VISUALIZE INCREASING DURATIONS OR INTENSITIES



LEFT AND RIGHT

FOR INDICATING A BEFORE-AND-AFTER SITUATION



SHAPE VARIATION

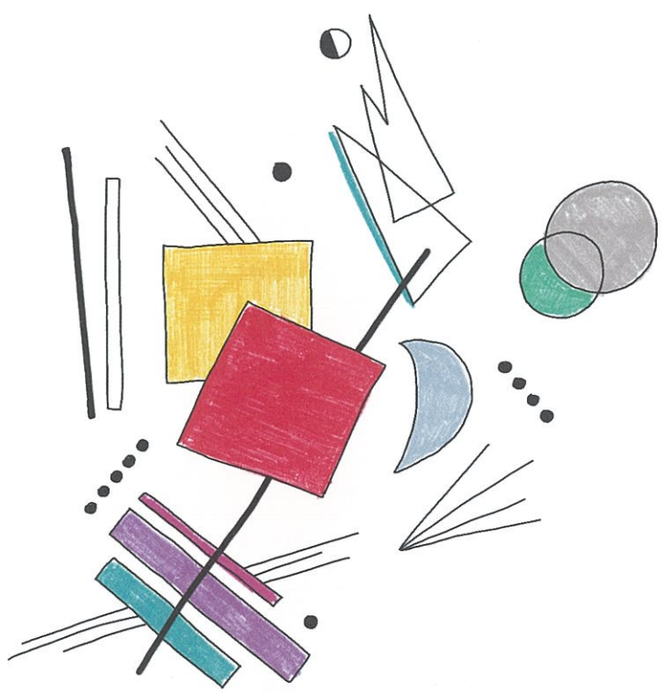
LOOK AT HOW MANY VARIATIONS THERE ARE FOR A LINE, A SQUARE, A CIRCLE, OR A TRIANGLE!

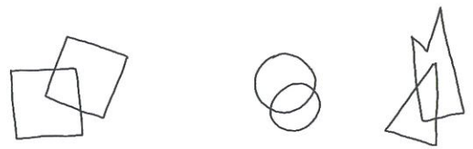
BY STARTING SIMPLE, YOU CAN COMBINE ELEMENTS, ASSIGN LENGTHS ACCORDING TO YOUR DATA RULES, AND CREATE BEAUTIFUL AND COMPOUND SHAPES.

WHAT CAN WE LEARN FROM:

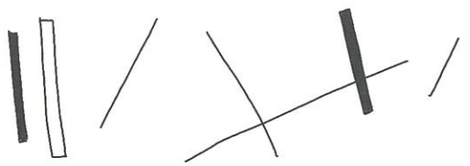
ABSTRACT ART

THOUGH APPARENTLY UNRELATED, ABSTRACT ART AND DATA VISUALIZATION ACTUALLY HAVE A LOT IN COMMON. WHILE CLEARLY PURSUING DIFFERENT GOALS, ABSTRACT ARTISTS AND DATA-VISUALIZATION DESIGNERS DRAW ON COMMON PERCEPTION PRINCIPLES AND APPLY THEM TO SIMPLE SHAPES AND A DEFINITE RANGE OF COLORS TO CREATE BASIC VISUAL COMPOSITIONS THAT PLEASE THE EYE AND DELIVER A MESSAGE.



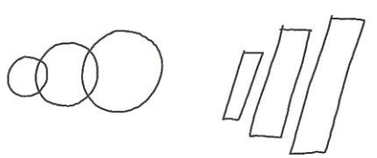


COMPOSITION : OVERLAP, ROTATION, AND JUXTAPOSITION OF SHAPES



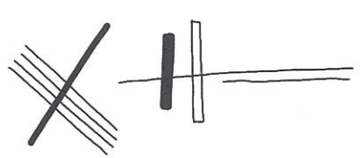
COMPOSITION : THE ORIENTATION AND OVERLAP OF LINES

PERCEPTION : DISTINGUISHED COLOR PALETTES AND MATCHING COLORS



PERCEPTION : VARIATIONS IN SIZES

DETAILS: THE ELEGANT DETAILS ON TOP OF THE COMPOSITION THAT WE CAN USE TO REPRESENT PECULIARITIES IN OUR DATA



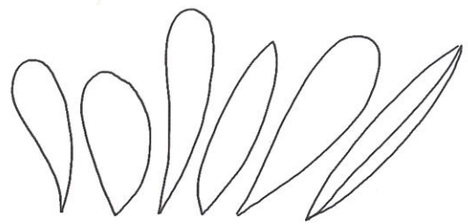
DETAILS: THE VISUAL HIERARCHIES (TOP TO BOTTOM, AND FOREGROUND AND BACKGROUND) CREATED BY THE INTERACTION OF VARIOUS ELEMENTS

WHAT CAN WE LEARN FROM:

NATURE

TO EXPAND YOUR VISUAL VOCABULARY, YOU NEED TO CHANGE THE WAY YOU LOOK AT THE WHOLE WORLD AROUND YOU, AND NOT ONLY AT ART; STOP SEEING ONLY THE BIG PICTURE AND LOOK FOR DETAILS. EVEN THE NATURAL ELEMENTS AROUND YOU ARE A GREAT SOURCE OF INSPIRATION FOR SHAPES, PATTERNS, TEXTURES, AND OVERALL HARMONY!

COLOR GRADIENTS



VARIATIONS IN THE SHAPES OF PETALS AND LEAVES

TINY ELEMENTS AND THEIR VARIATIONS

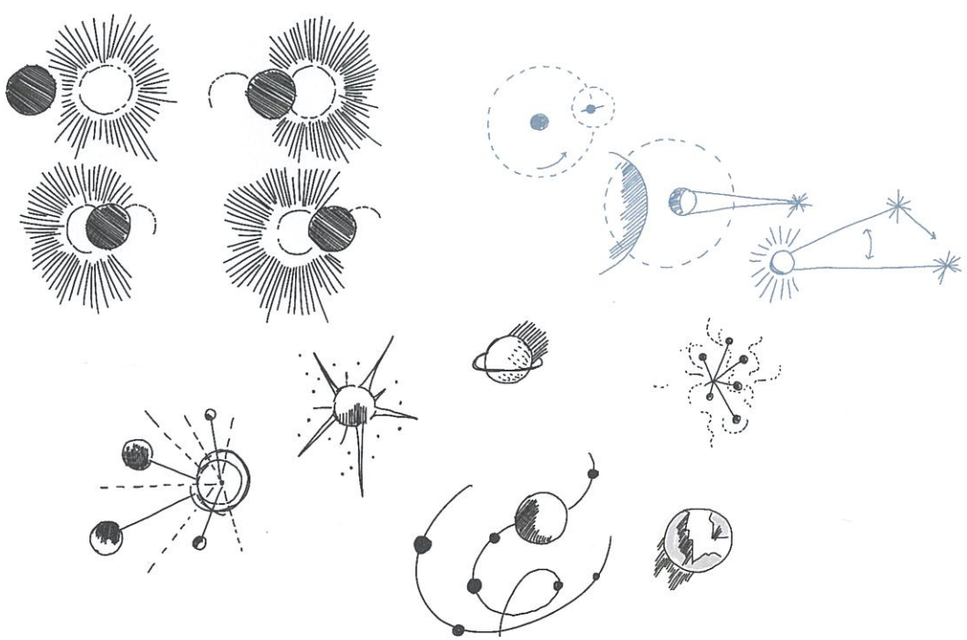
COMBINING COLORS AND PATTERNS

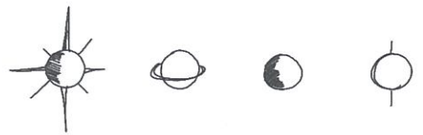
ADDITIONAL BACKGROUND COMPONENTS

WHAT CAN WE LEARN FROM:

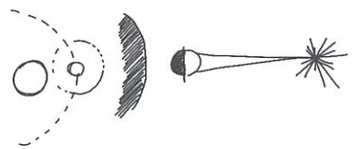
ASTRONOMICAL DIAGRAMS

DIAGRAMMATIC REPRESENTATIONS CAN TEACH US A LOT AS WELL: THEY ARE ALREADY INFORMATION LANGUAGES. ASTRONOMY DIAGRAMS, FOR EXAMPLE, EXPLAIN DIFFICULT ASTRONOMICAL CONCEPTS WITH CLEAR REPRESENTATIONS. A DATA-VISUALIZATION DESIGNER CAN LEARN FROM ASTRONOMICAL DIAGRAMS HOW TO WORK WITH THE VARIATION AND POSITION OF ELEMENTS AND THE CONNECTION BETWEEN THEM.

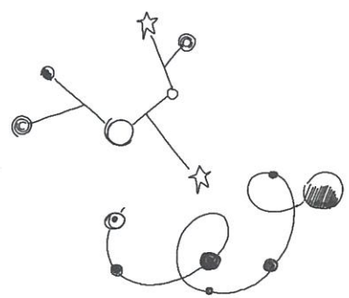




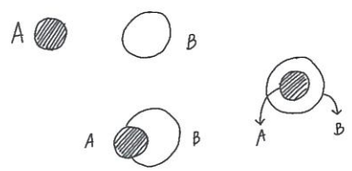
VARIATIONS OF SIMPLE ELEMENTS



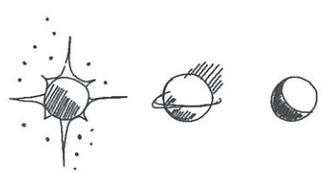
CREATING SYSTEMS OF ELEMENTS



CONNECTING SYSTEMS OF ELEMENTS



VARIATIONS IN THE LOCATION AND OVERLAP OF ELEMENTS



THE DETAILS THAT VISUALLY MAKE THE DIFFERENCE