

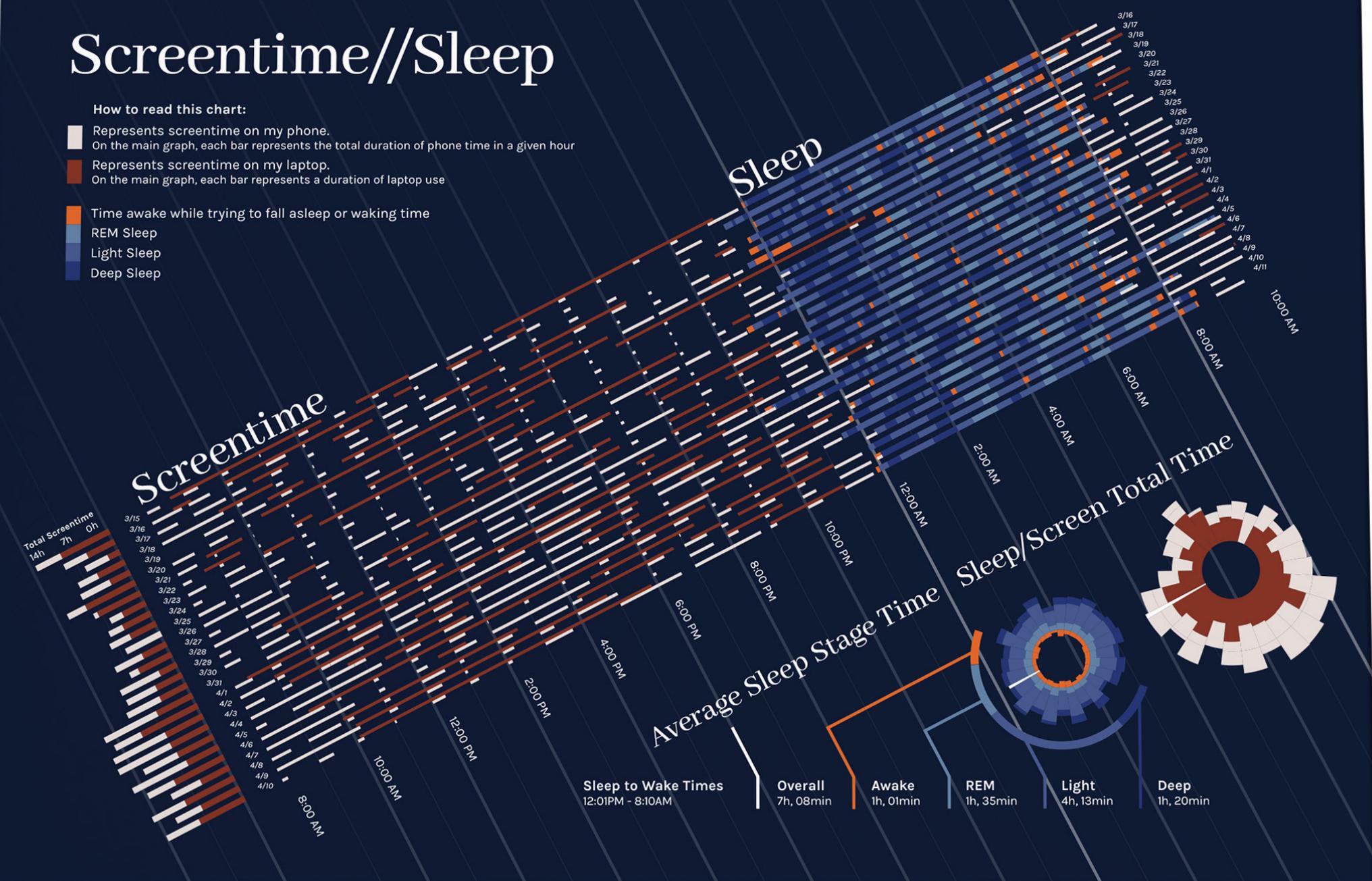


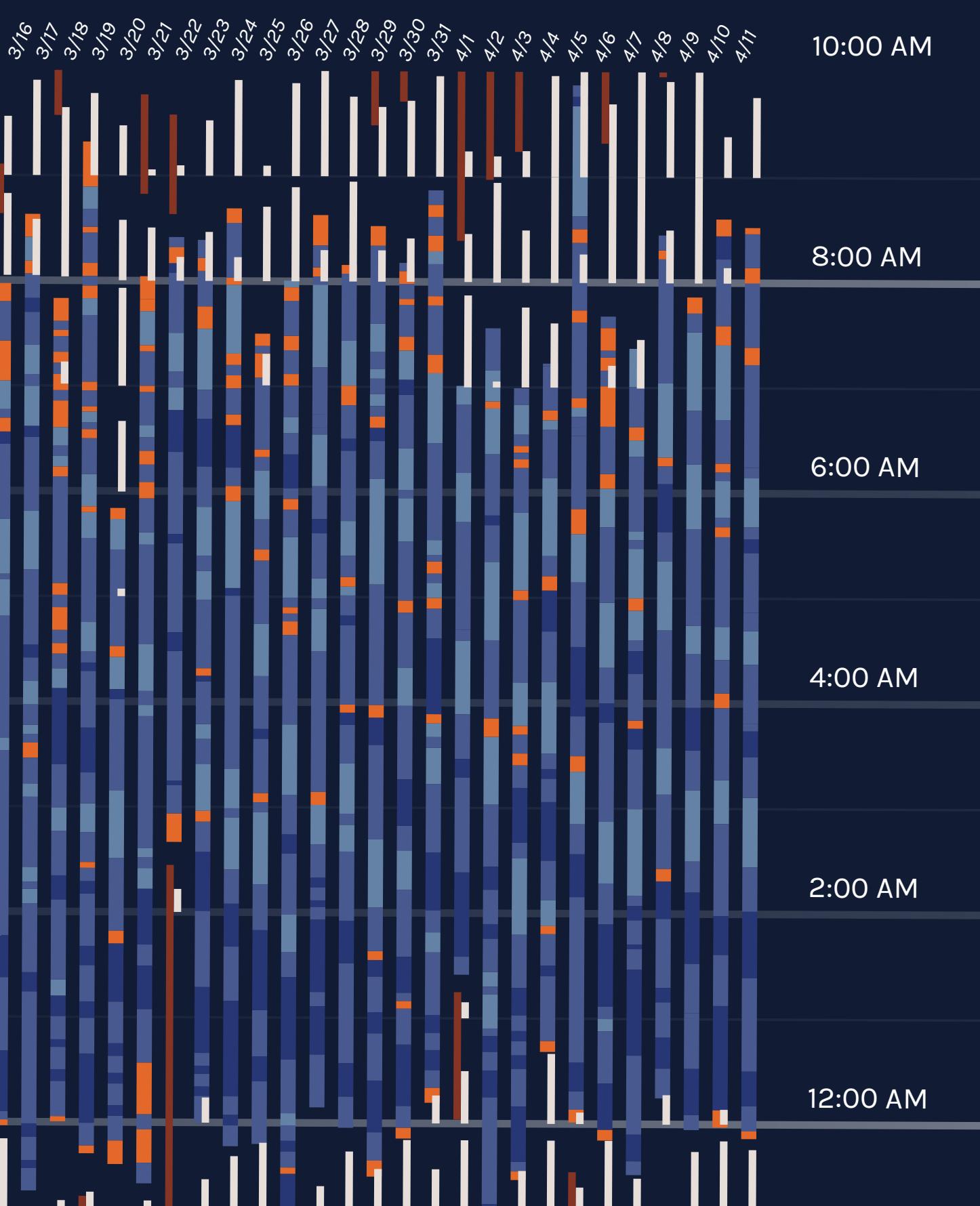
MARK SCHNEIDER
Graphic Design | markfs.com

Screentime//Sleep

How to read this chart:

- White bar: Represents screentime on my phone.
On the main graph, each bar represents the total duration of phone time in a given hour.
- Brown bar: Represents screentime on my laptop.
On the main graph, each bar represents a duration of laptop use.
- Orange bar: Time awake while trying to fall asleep or waking time.
- Blue bars: REM Sleep
Light Sleep
Deep Sleep





10:00 AM

8:00 AM

6:00 AM

4:00 AM

2:00 AM

12:00 AM

Insight at Night

Data can be self reflective. Visualizing data is a fantastic way for a pattern oriented mind to focus on something greater than the senses can usually process. Data over time is particularly good at this.

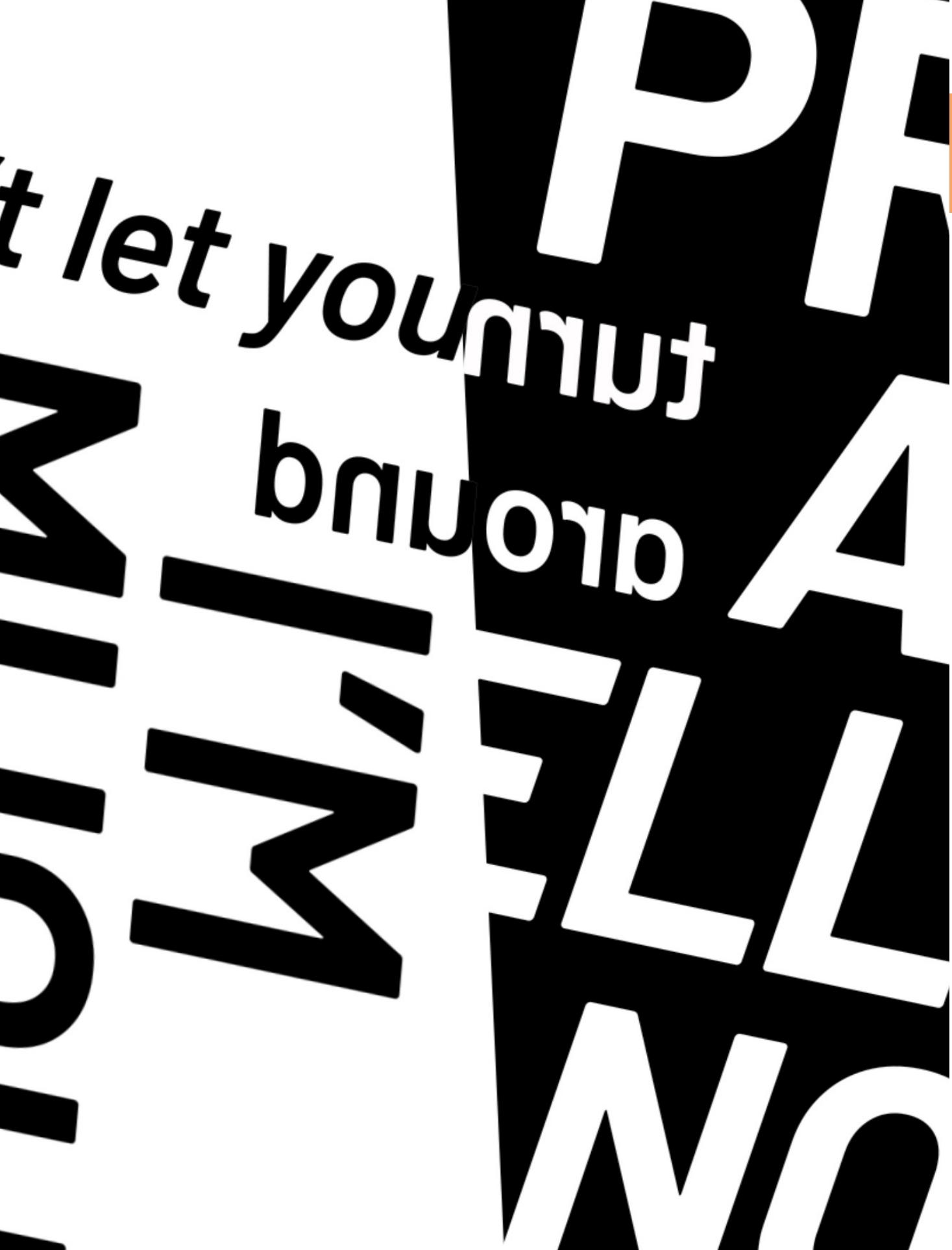
Sleep takes place over a long period of time, and is difficult to really evaluate from a short period of time. Over the span of around a month, however, patterns begin to appear. I wanted to see what my sleep looked like on a broad scale.

For this project, I tracked both my sleep and the time that I spent in front of a screen. Sleep was tracked on a FitBit, and screen time was done natively in iOS 13, with chrome tab history, and application runtime. This project was intended to show pattern and relation between these two elements in my sleep schedule.

Aesthetically, I wanted to have clear separation between awake and asleep. Color seemed like the most meaningful way to do this, opting for warm for awake elements and cool for sleeping elements. The merger of this rule comes from the description of sleep stages, in which deep sleep (dark blue), light sleep (medium blue), and REM (light blue) are contrasted by a strong orange representing awake time. Overall the chart is focused on sleep, which influenced the dark background. The graph is meant to resemble a comet streaking across the sky.



Bulletproof Kinetic Typography



Kinematic Learning

This project was one of my earlier tests in using After Effects as a student project. It was the first project over a few seconds that I attempted, and the first result was, at a minimum, a good lesson in what to do and what not to do. These were my largest takeaways.

Lesson 1: Sketching is not the same as story boarding.

A pencil and paper is always a part of my process. Finding the ideas on paper makes it easier to transition to digital later on. The way I sketched created a feeling of moving from station to station in the video. Presenting the same type of visuals became repetitive quickly, so the revision process included less linear sketches which transition between different scenes with ease. After implementing those visuals, the video became more dynamic and continuous.

Lesson 2: Motion files need to be organized differently.

One constant in my work is tidiness. I keep my desk clean, laptop tidy, and my files understandable. Video editing took my common tenets and threw them out the window. The first pass file was difficult to understand and almost impossible to edit. I had to relearn how to keep a file organized and understandable.

After learning these lessons, and more through the course of another few projects, this project still stood out to me. I revisited the project and fixed some of its problems, and I can say that I'm happier with how this project turned out the second time around. There is still more to learn, and I intend to keep learning every project.



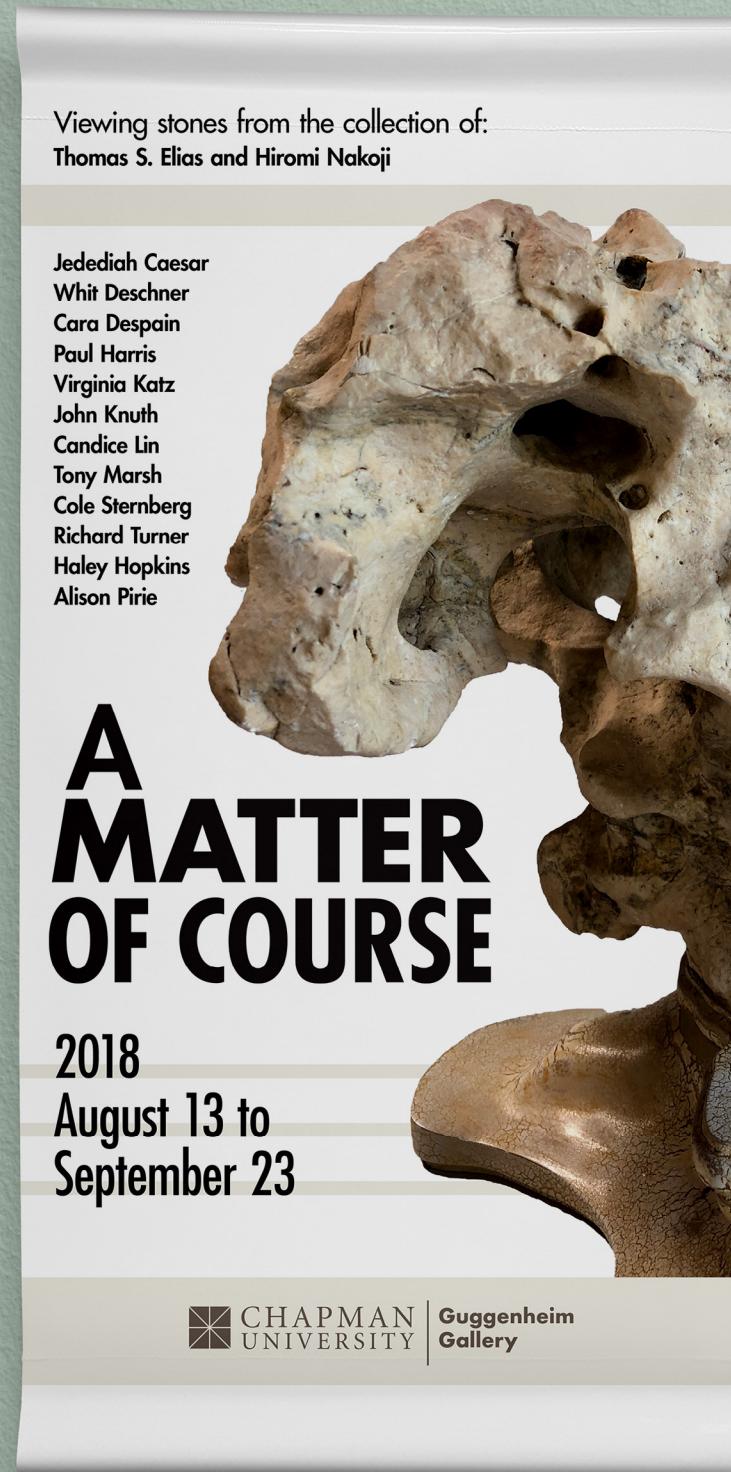
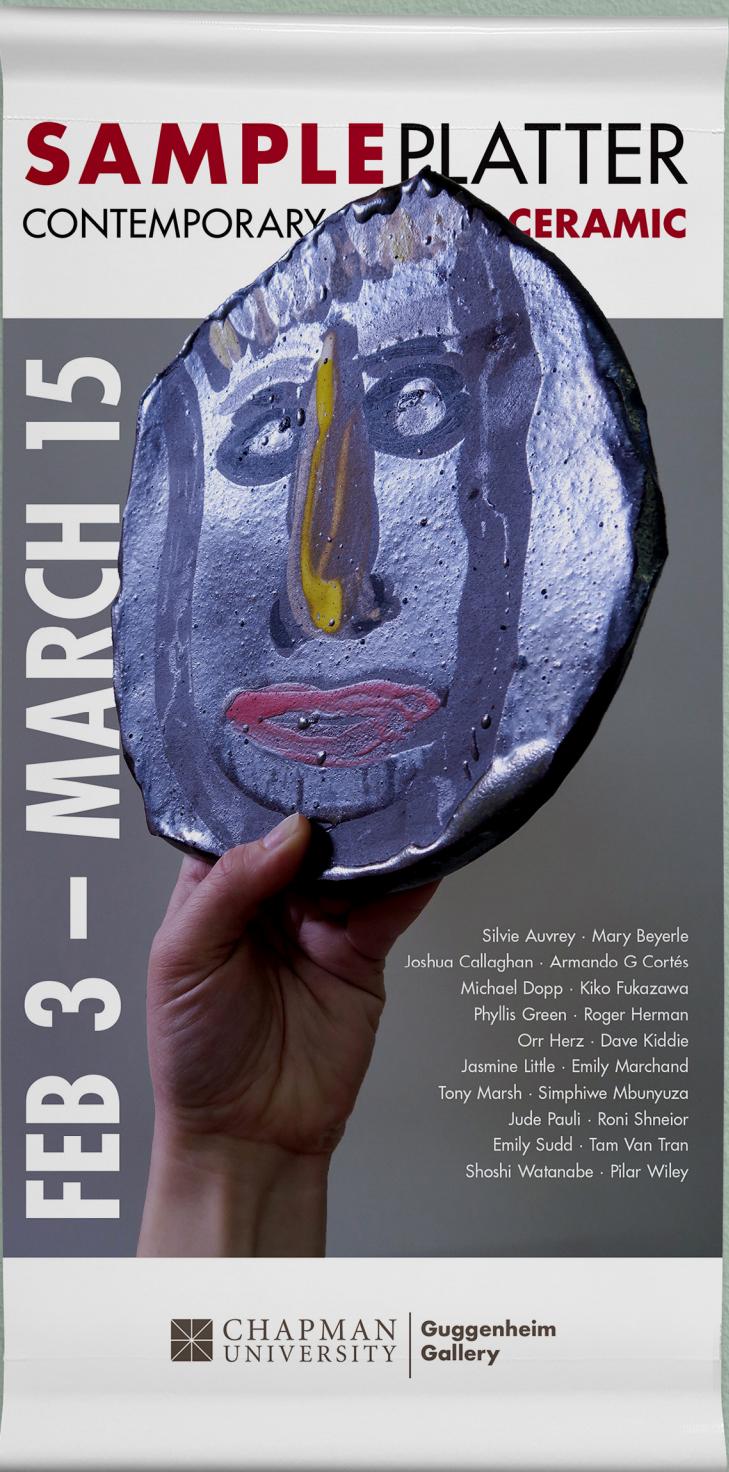


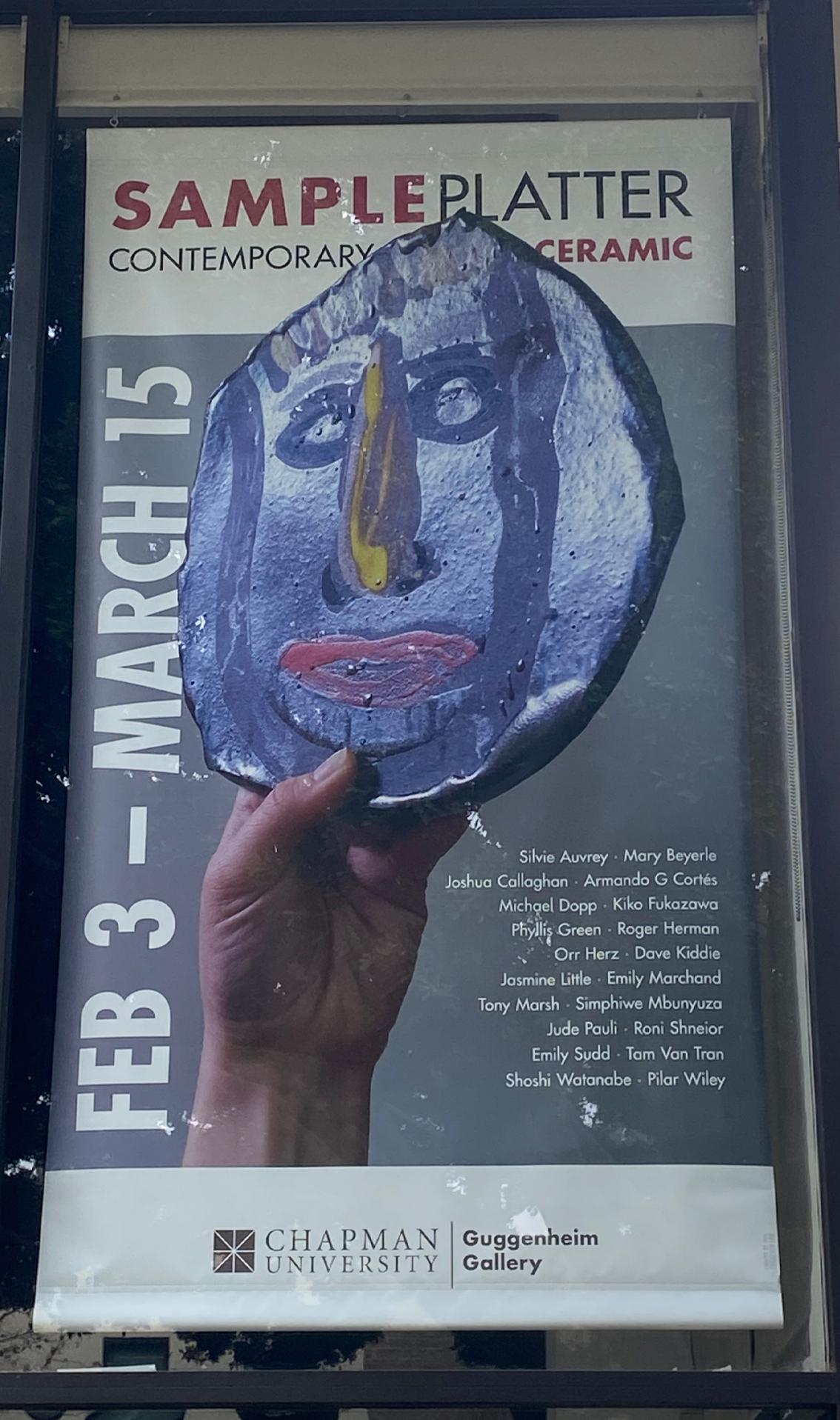
Wayfinding in Another Country

Navigating a new location is difficult enough in a place that resembles home. There's similar language, both in vernacular and visually which helps anchor a confused tourist. Adding on the next step of a foreign culture and everything that comes with it can be a recipe for disaster. For the Olympics, the foreign audience is not one that can be ignored. This project focuses on wayfinding and branding for an international audience. Finding the right balance of culturally meaningful design and internationally understandable design without relying on clichés is key.

The zones of these Olympic Games give plenty of opportunity to play with aesthetically separating the two. By dividing zone maps, the information in each individual zone becomes more clearly displayed. Playing to the theme of looking forward and looking to the past influenced the minimized complexity in map and icons, referring to a rich history and continued culture of ink painting and calligraphic writing.

The brochure was designed with constant travel in mind. The cards pictured to the left are scaled to fit into a pocket on the lower left square of the brochure. The brochure helps users navigate the subway system to individual events, while the cards help navigate from the subway stations to the event venues.



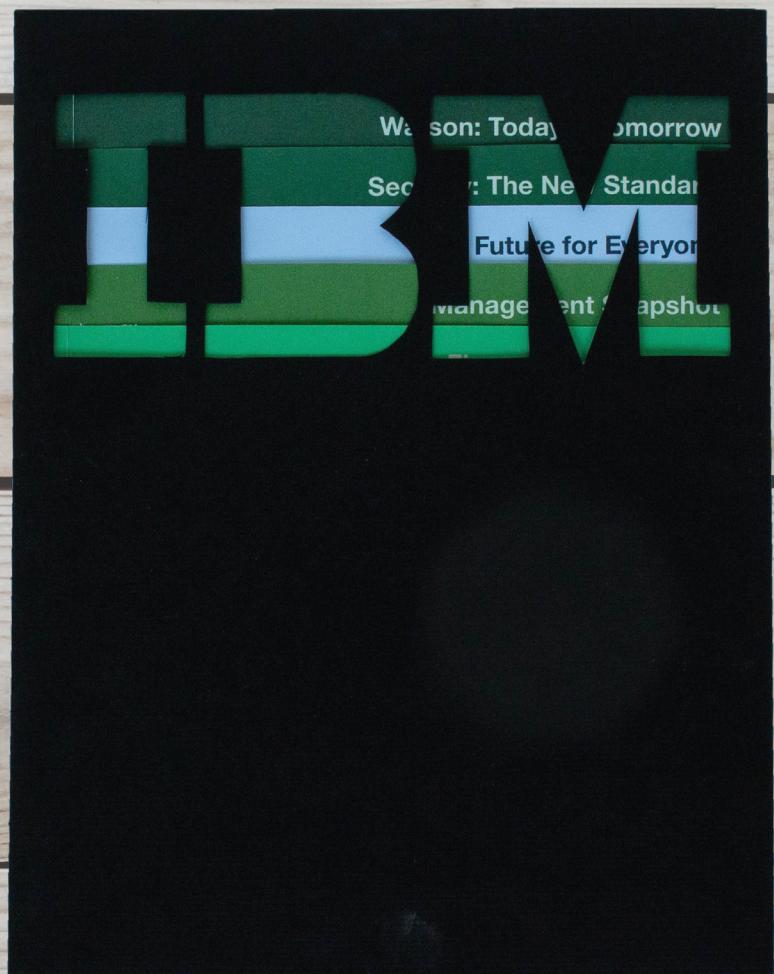
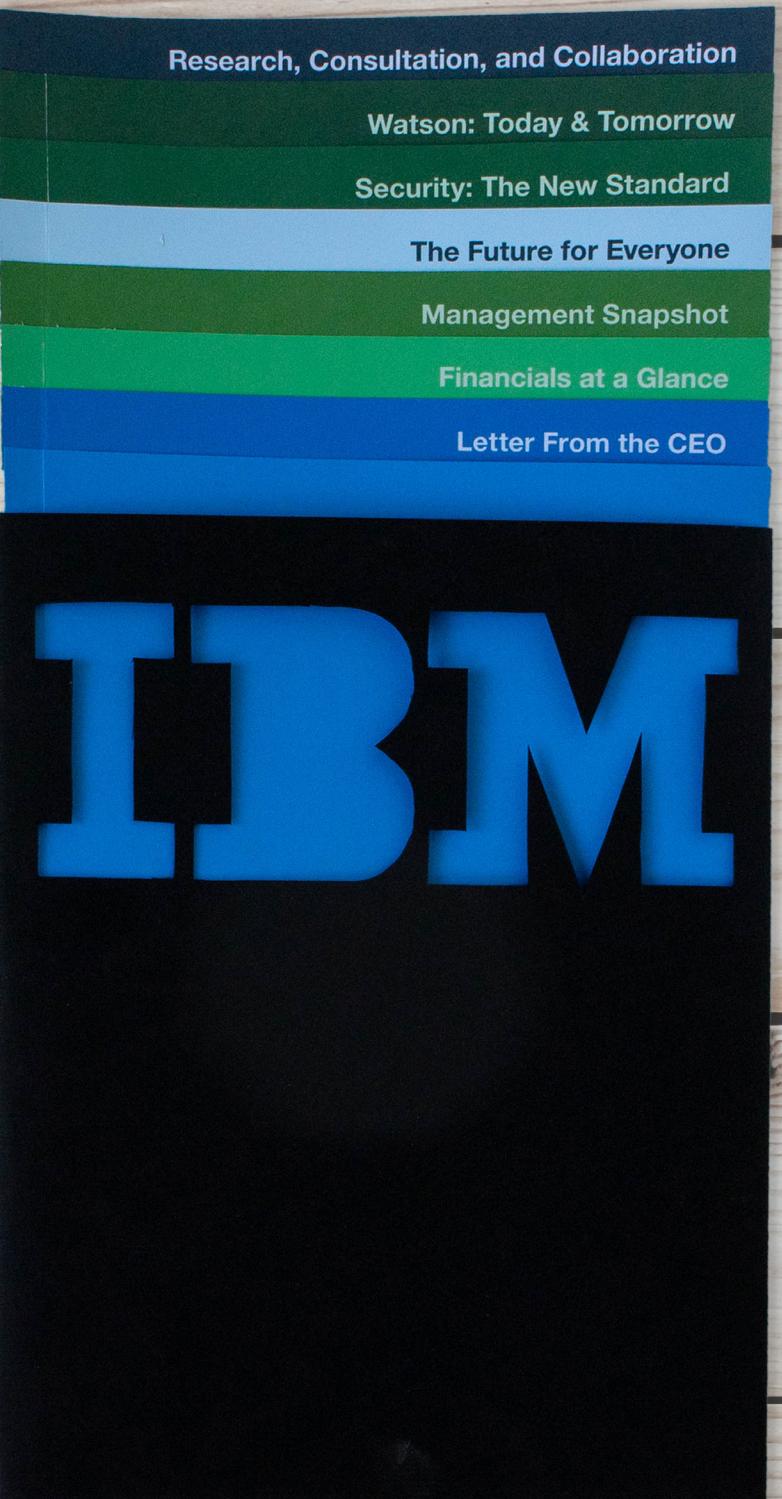


Interpreting Interpretations

The opportunity to highlight the work of others is a fantastic responsibility for a graphic designer. At Chapman University, I had the opportunity to create the show banners for the main university art gallery. While this is a university gallery, the shows come from an extensive and ever-growing permanent collection of art.

The gallery banners selected here are from a 2018 show on meditative Japanese viewing stones, and a 2020 show on contemporary ceramic artists. Both shows covered topics that were traditional in nature, and looked at how they presented in a modern context. These banners work with modern layered styles that highlight the artwork over other imagery and typography. By framing these works, it builds the same contrast between traditional material and current aesthetics.

Designing around exhibitions was one of the most interesting advertising collateral jobs I had at Chapman. Designing around a photograph of an object provides a unique challenge to give it an outward message. Working with layering and aligning typography with professional artwork was an absolute delight.



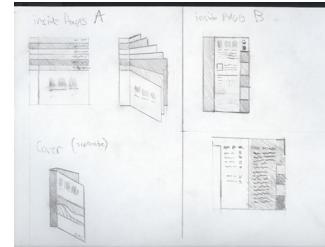
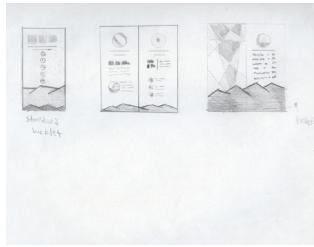
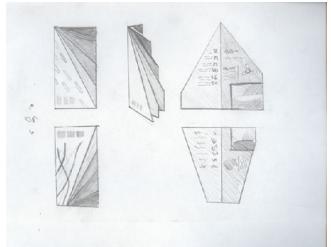


Details, Data, and Layout

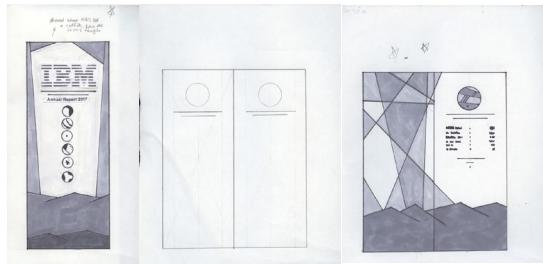
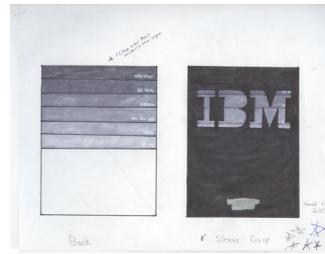
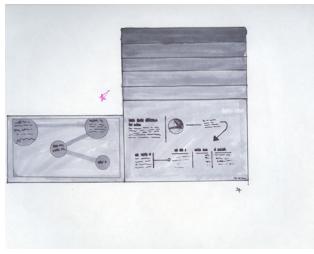
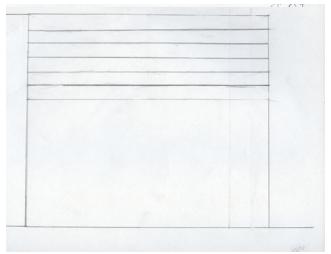
IBM is a company on the forefront of data and computing. An IBM annual report needs to reflect the modern class of the digital age, while speaking to the innovation and leadership that the company represents. This design is a solution born from tinkering and actual construction. I approached this process looking at ways to create a book with an interesting physical form.

The process started with rudimentary constructions, and sketching out the fine details. After arriving at this design, I experimented and refined the tabs until they allowed the idea to shine and the text to be read. Physical mockups made of paper and tape guided me through the process to find the perfect ratios for the book.

The final design shows a booklet flatly bound to fit into the die-cut sleeve. The die cut cover gives a glimpse at the year, and the accomplishments of IBM. The dimensionality of the book can get lost with digital mockups, however. A final printed piece made for a more impactful experience. Pulling that book out of the sleeve is an exciting task, and the tabs are perfect to delineate between sections.

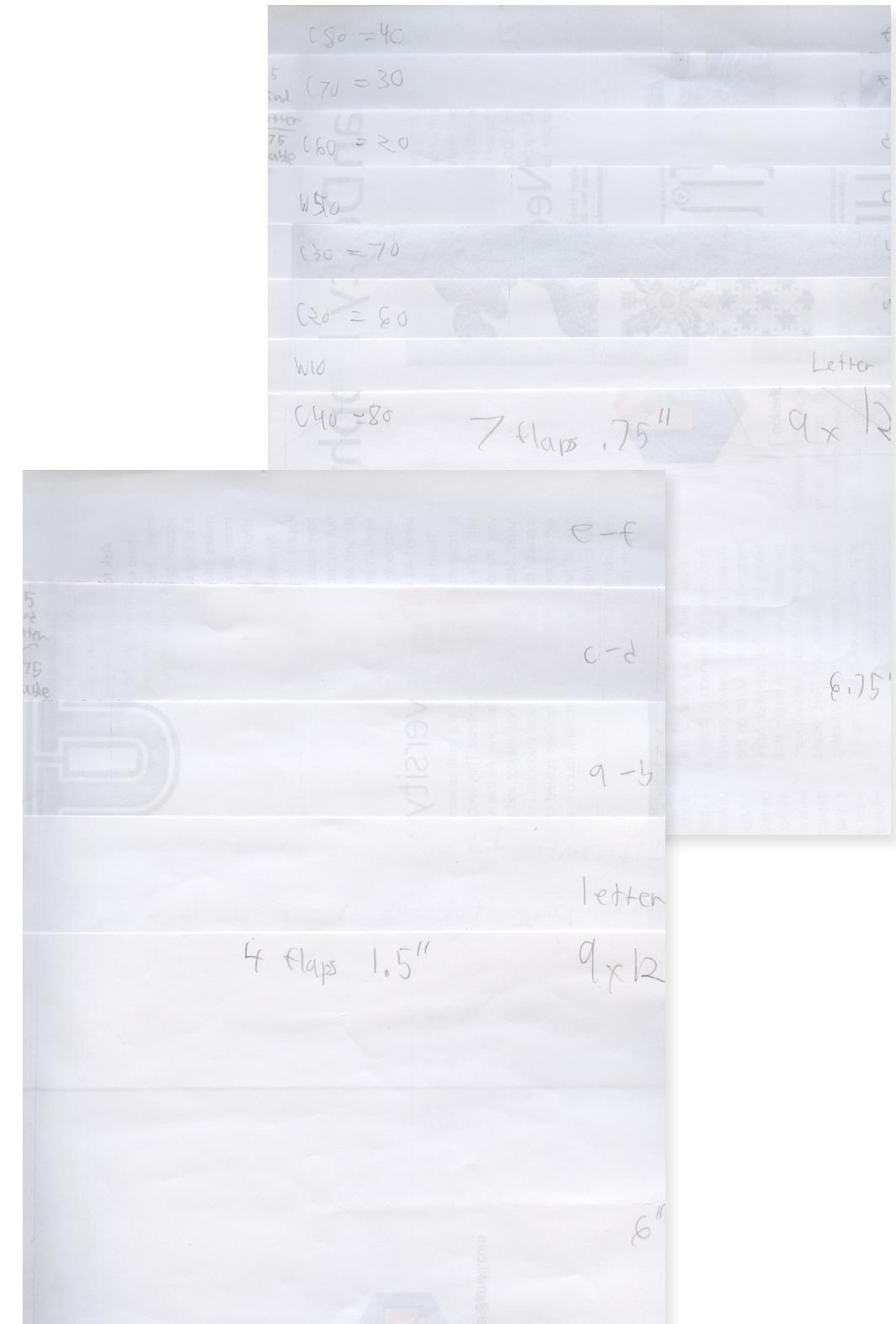


Early in the process, the form of the book was very important. The report itself needed to be memorable, yet practical.

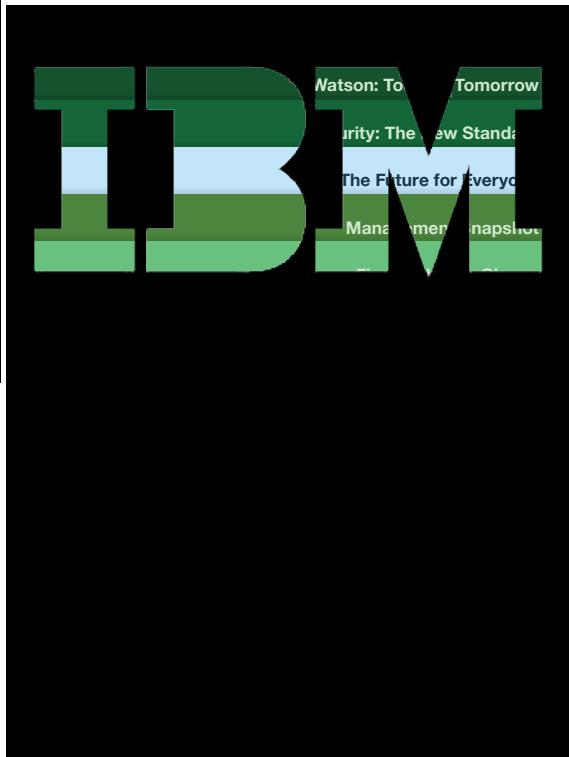
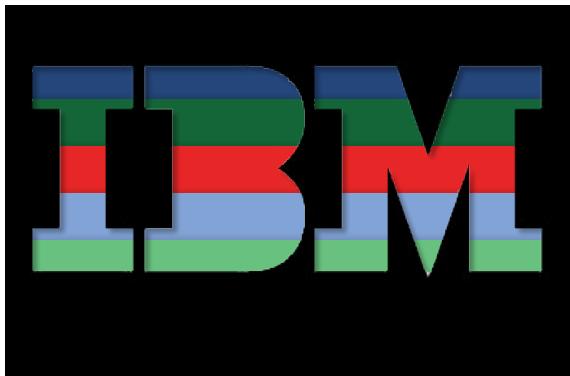


After settling on a few directions, I began to render them out more cleanly to understand the details of the design. The sliding cover with the die-cut window emerged here.

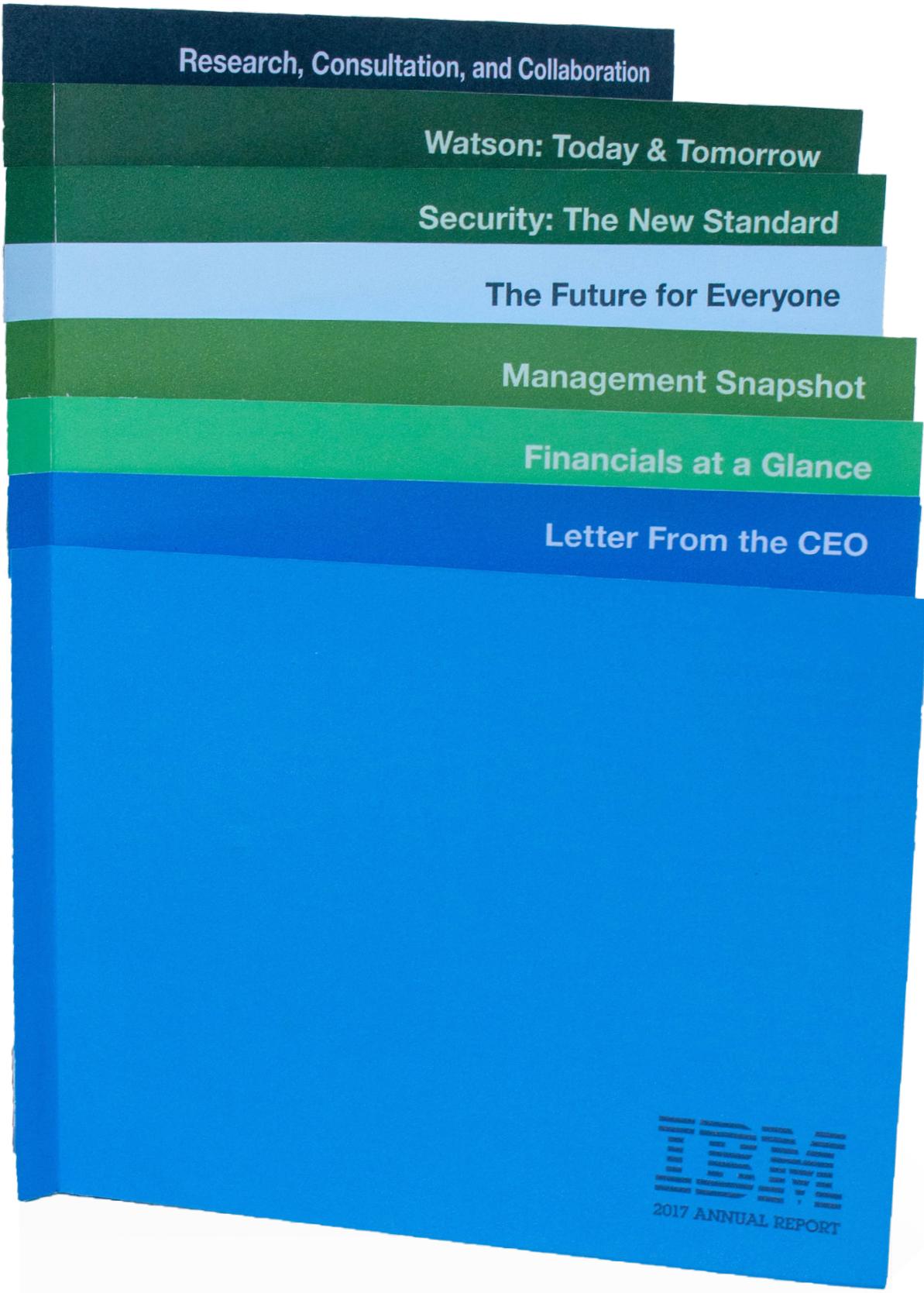
The tabbed pages were the strongest design to move forward with, which led to these physical mockups. They helped find the best proportions for the book and the tabs.



Sketches and Physical Mockups



Moving the sketches and mockups to digital meant building up a palette. After experimenting with monicolor and technicolor options, the strongest fit became a mix of a yearly theme color (in this case, green) to compliment the IBM blue, based off of the official IBM color pairing guidelines in their brand handbook.



47th Annual Orange International Street Fair

09/04-09/06
2020

Sponsored By:



LAW OFFICES OF PHILIP L. HUMMEL, IV



Cultivate OISF 2020





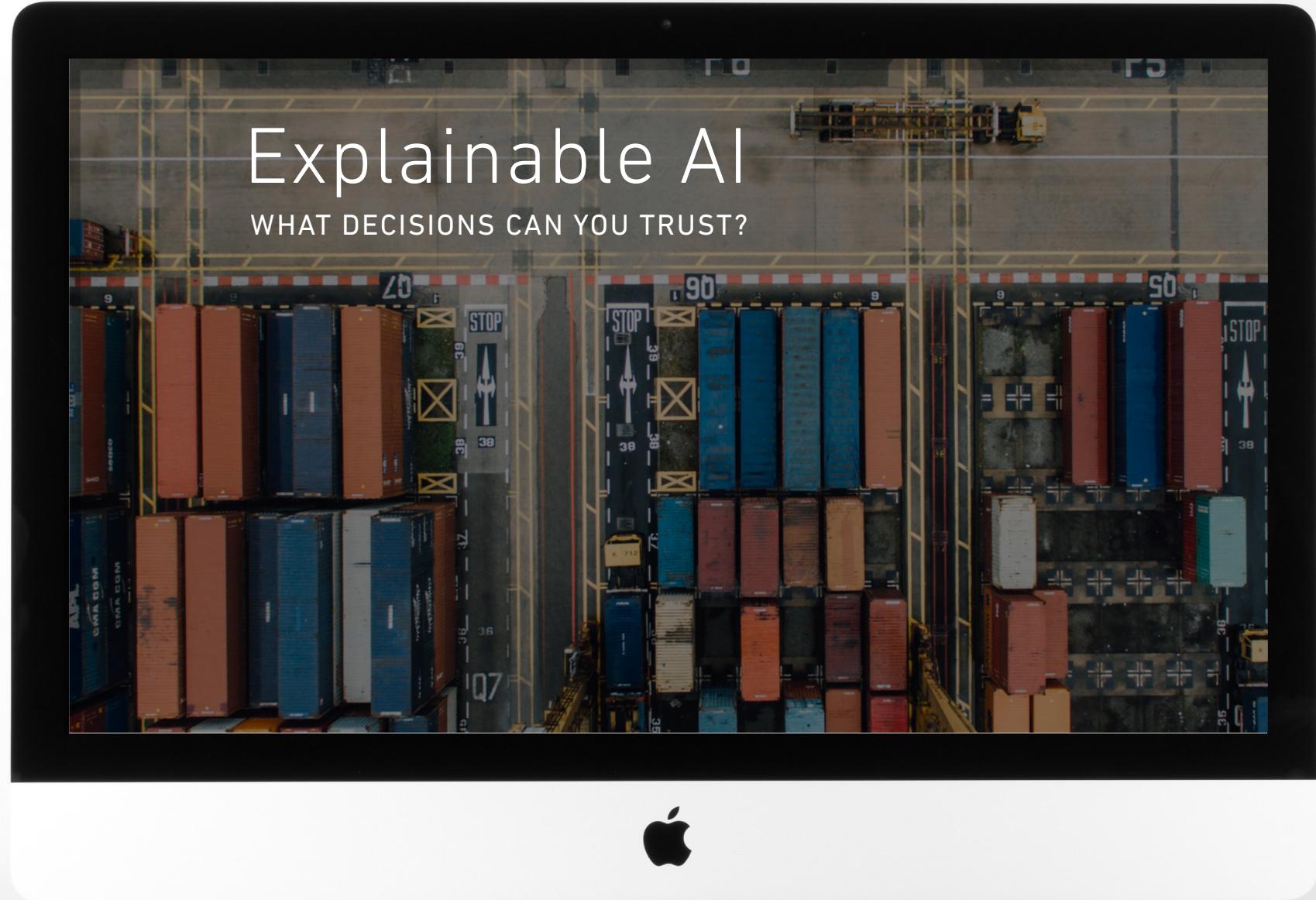
Culture and Community

The Orange International Street Fair is a not-for-profit event that takes place at the Plaza in the city of Orange, CA every year on labor day. The event is an opportunity for local non-profit organizations to raise money while bringing the community together.

I worked on this project with a small team of other designers. Careful delegation made sure that each member was playing to their strengths for the whole project, and it was a delight to take charge or follow instructions based on the needs of the situation. This project had the luxury of a long production time, which meant that our team had the opportunity to do in-depth and in-person research.

The street fair is a family and young-adult oriented event. There are stands serving food from cultures around the world, each staffed by a different non-profit. Our theme highlighted that aspect of a diverse community coming together. We focused on the idea of natural growth, which gave us a nice way to represent different countries without having to refer to traditional, and potentially contentious imagery. Instead, we can explore the idea of cultivating a community and exploring the different cultures. The project consisted of creating an identity for this year's fair, and using it to create a poster, brochure, and 18 street banners.





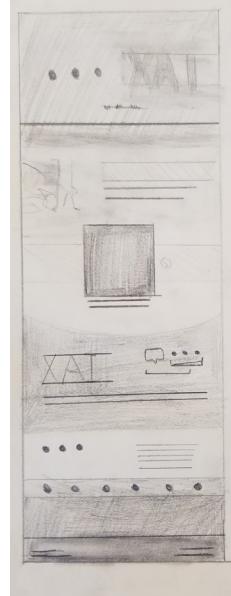
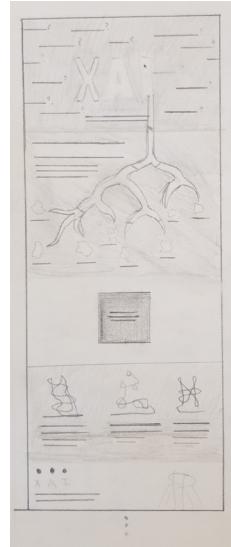
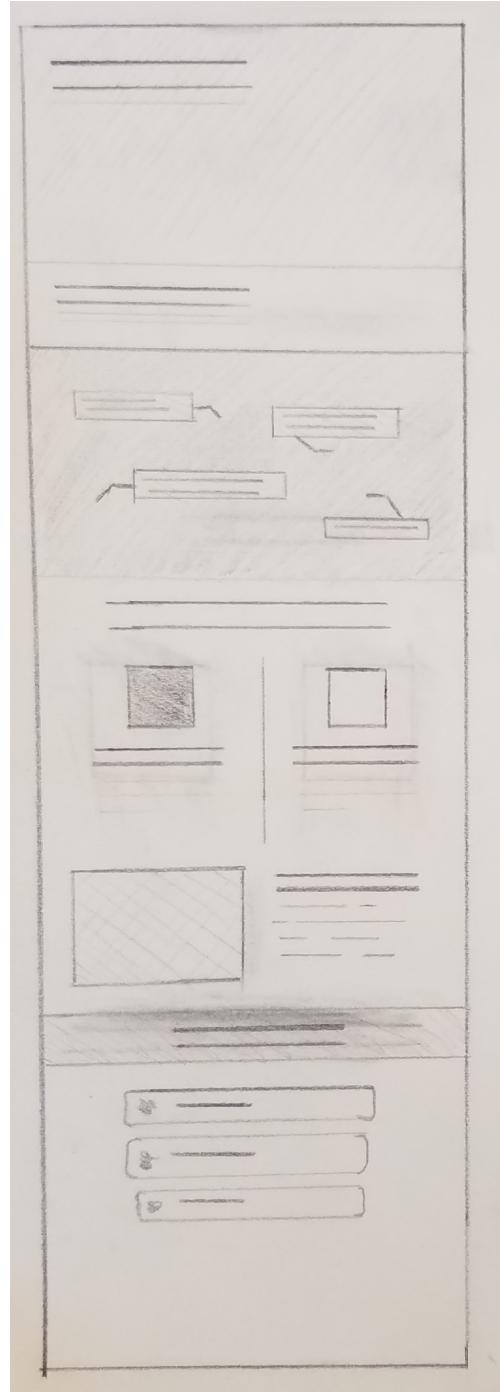
Explainable Artificial Intelligence



Understanding Artificial Intelligence

Artificial Intelligence (AI) is confusing. Most people never question how their software works, but AI has wide reaching philosophical and technical questions that are beginning to enter the public consciousness slowly but surely. Movies like Ex Machina and War Games provide some interpretations of how AI works in a modern setting, but there is more to this revolutionary field of computer science than dramatizations would show.

This infographic was designed as a static scrolling image. I worked with a copywriter to build the narrative of this graphic into a meaningful teaching experience. This narrative is broken into visual segments to separate ideas, and to allow for negative space for the viewer to understand the previous station. One of the main goals for this material was to introduce new clients to what artificial intelligence is and what it can do for their businesses.



BRIEF:
Create an webpage infographic that highlights Explainability in AI. Highlights Audit trail, why explainability matters, parallels to human employees, etc.

GENERAL TONE:
Sleek, Schematic esque. Captures the cinematic and spacelike feel of Beyond Limits, while remaining an educational document.

REF: SPACEX'S FALCON HEAVY ROCKET INFOGRAPHIC



TARGET AUDIENCES:
KNOWS
AI exists, but are blurry on what it is and does
Broad, but undefined sense of AI ethics (accountability, etc.)

UNKNOWN
Difference between XAI and Conventional AI
How AI actually works
Applications of machine learning on a broad scale
May fear AI will bring job losses
How common AI is



... to our executive clients, but under brand awareness raising on XAI, or directed from



GOALS:

- Educate the viewers on what XAI is
- Be a starting resource for people to learn
- Funnel users into Beyond Limits documentation, (whitepapers, news, etc.)
- Educate prospects on the applications of our technology

STRATEGY:
Highlight the potential of XAI over the nitty gritty of the mechanics. Focus on the "Front end" elements such as the human-computer interface (audit trail), Black box vs "white box," and the ethics of explainable decisions (on a surface level). Potentially discuss the cognitive engine / merging numeric and symbolic AI at Beyond Limits. Direct users to learn more on our website. Drive them to our trackable documents.

Developing this project was a push to understand the most effective way to market to the potential audience. The core of the project was the story, which meant that a coworker and I spent the time developing a narrative of information that could meaningfully take a new viewer from no understanding of Artificial Intelligence to someone who wants to integrate AI into their businesses.

Concept Development and Pitch



Explainable AI

WHAT DECISIONS CAN YOU TRUST?

Artificial Intelligence, Real Responsibility

AI is playing an expanding role in industries with high value assets and great human impact such as energy, finance, and healthcare. In these high-risk industries, AI systems need to explain the reasoning behind their recommendations. Artificial Intelligence must be smart enough to explain how it thinks so you can make more informed and accurate decisions. Enterprises are increasingly demanding explainable AI.



Visible

Explainable AI delivers insight into the reasoning and showing evidence, risk, and confidence.



Understandable

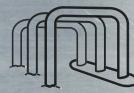
Explainable AI evidence-based recommendations are designed in clear, natural language.



Teachable

Explainable AI can query the system and is designed to be trainable and learn on the fly, autonomously.

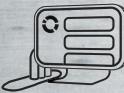
The Anatomy of XAI



Data Harvesting
Historical, real-time, sensor, and performance data is gathered and flows into the engine.



Artificial Intelligence Engine
The engine processes data and is further educated and trained from the knowledge base and user inputs.



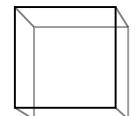
Interface
Recommendations and an evidence-based audit trail is provided to the user.

Complex Systems Need Detailed Answers



Black Box AI

Black box AI is the conventional approach to AI such as machine learning, deep learning, and neural networks that cannot explain how they arrive at their conclusions.



Glass Box AI

Glass Box AI is a result of cognitive AI which delivers clear explanations for its recommendations with reasoning and evidence, including risk, confidence, and uncertainty.

When "black box" AI systems produce an answer, they can't tell the human end-user how or why they reach their recommendations. In simple terms, they can't explain their reasoning. In high-risk/high-value industries, an explanation of the underlying reasoning is critical for decision makers. To make better decisions, your AI system must be smart enough to explain how it thinks.

Explainable AI works to solve large-scale problems in the world's most demanding industries. A refinery is a complex system of systems that encompass hundreds of people and acres of equipment working constantly. Maintaining coordination across these tightly interconnected systems can be extremely challenging. Explore how explainable AI can help manage these problems and requirements.



IMPROVED COMMUNICATION

REDUCED DOWNTIME

24/7 REPORTING

Communicates with all stakeholders to ensure that everyone has a global perspective on the impact of their actions.

Predict equipment repairs and failures to reduce planned downtime and prevent unplanned downtime.

Reports results to refinery engineers in real-time using historical data, real-time sensor data, and human knowledge.

Explainable AI for Demanding Industries

Explainable AI for Demanding Industries



Energy & Natural Resources

Explainable AI can help solve mission-critical issues for the entire energy value chain, including cognitive exploration, reservoir and refinery management, well health, and power generation.



Industrial IoT

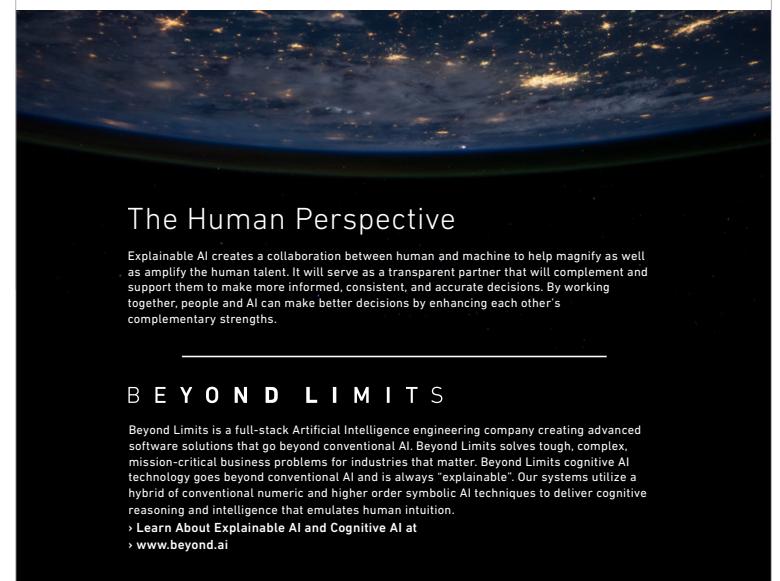
Explainable AI help solve challenges in industrial IoT such as continuous flow manufacturing, factory operations, diagnostic and prognostic, situational awareness, and automotive safety.

Healthcare

Healthcare can benefit from explainable AI by assisting in clinical decision support, cognitive patient monitoring, population health management, and revenue cycle management.

Finance

Financial institutions of any size can utilize explainable AI to optimize processes of commodity trading, propensity scoring, credit and lending, risk assessment, investment management.



The Human Perspective

Explainable AI creates a collaboration between human and machine to help magnify as well as amplify the human talent. It will serve as a transparent partner that will complement and support them to make more informed, consistent, and accurate decisions. By working together, people and AI can make better decisions by enhancing each other's complementary strengths.

B E Y O N D L I M I T S

Beyond Limits is a full-stack Artificial Intelligence engineering company creating advanced software solutions that go beyond conventional AI. Beyond Limits solves tough, complex, mission-critical business problems for industries that matter. Beyond Limits cognitive AI technology goes beyond conventional AI and is always "explainable". Our systems utilize a hybrid of conventional numeric and higher order symbolic AI techniques to deliver cognitive reasoning and intelligence that emulates human intuition.

> Learn About Explainable AI and Cognitive AI at

> www.beyond.ai

Key Idea: Why do I care about Explainable AI?

Why does Artificial Intelligence matter at all?

Why should I care about if/what kind of AI we use?

How is AI "constructed"? What are its component parts?

Key Idea: What's different about Explainable AI?

Is it more transparent?

Is it more profitable?

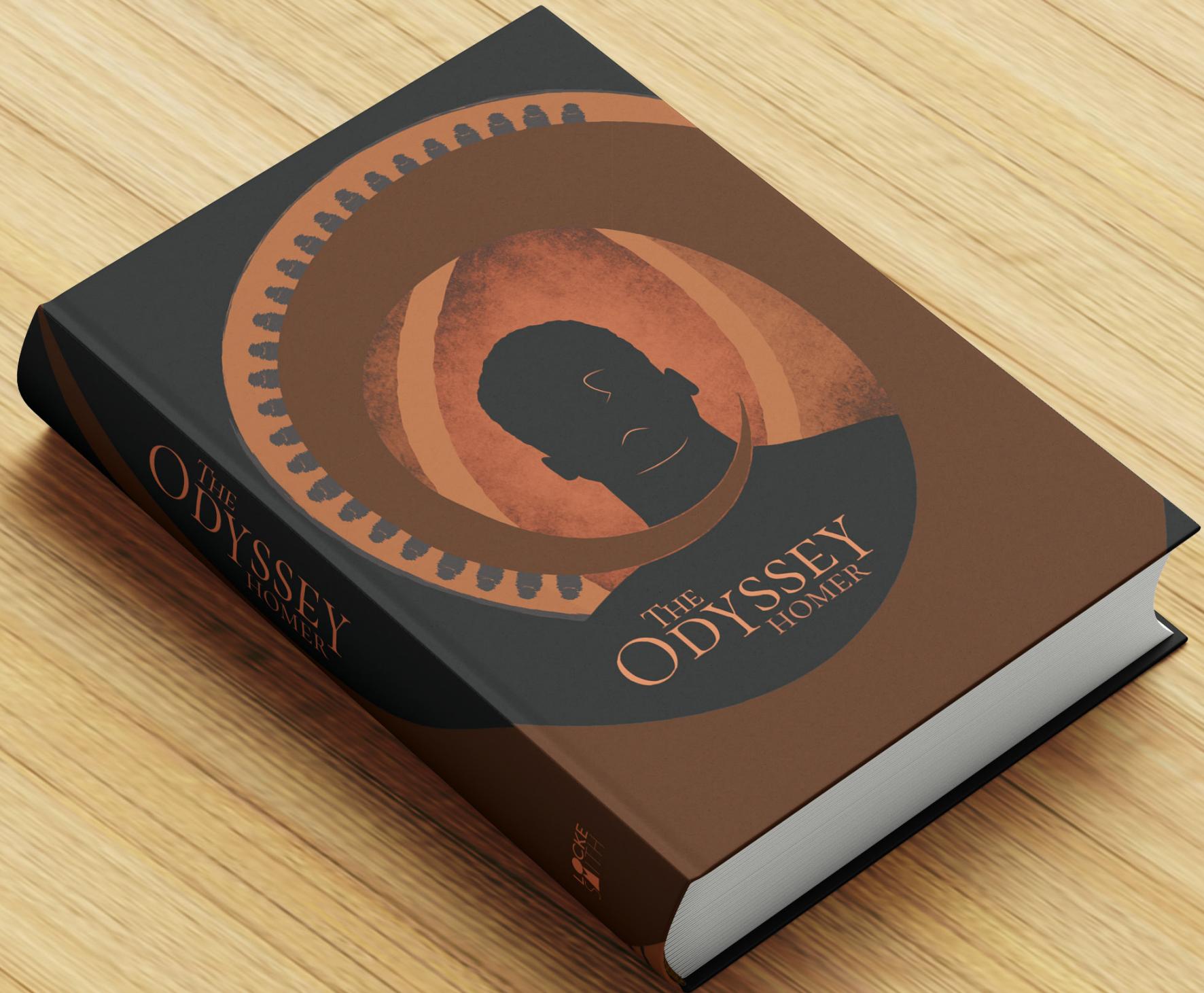
Is it more reliable?

Key Idea: Where can I get started?

What industries can Explainable AI transform?

What is the takeaway?

Where can I find this technology?



The Odyssey



Museum of International Folk Art



Understanding a New Culture

This project focused on the Museum of International Folk Art. This New Mexican museum hosts exhibits that focus on Native American and Upper Mesoamerican cultures. The museum is also a cultural center that helps the local communities carry on their traditions. These cultures are far from my own, and I made it a priority to make the museum feel modern without losing the ties to the tradition that the museum was founded on.

The final design represents the natural landscape of the area, with desert cacti and tall reaching trees alongside mountains and rivers. The colors derive from indigenous beads used for ceremony and trade. The brochure uses a unique fold that spans the thirds of the logo, and creates a semi-rounded trifold from a full circle cut paper. It unfolds to reveal a small poster as well.







Maps, Development, and Travel

These designs were part of a 5 week summer program on sustainable design. We worked together like an agency. The class worked with Buro Happold, an architectural firm based in London, on the planned city of Neom in Saudi Arabia. The class designed the city accounting for all components of a livable civilization: technology, economy, environment, education, community, transportation, infrastructure, agriculture, and tourism. At the end of the course the class had created a presentation for the client.

My primary contributions to the final presentation came in the form of helping to write the script and creating the map graphics seen throughout the presentation. This was a collaborative group task on a short time frame, which meant I was switching jobs based on where I was needed. I also spent ample time researching, gathering photographs, and forming the basic structure of the presentation.

Through my job at Chapman University, I designed a gallery show highlighting the work from the class. My tasks for this show were to create the gallery layout, manage or create all the collateral, and direct installation in the gallery. My job was to highlight the positive effects of the class to the leadership at the university to help secure more subsidized funding for the class in the future, as well as to show off the work done by the students.



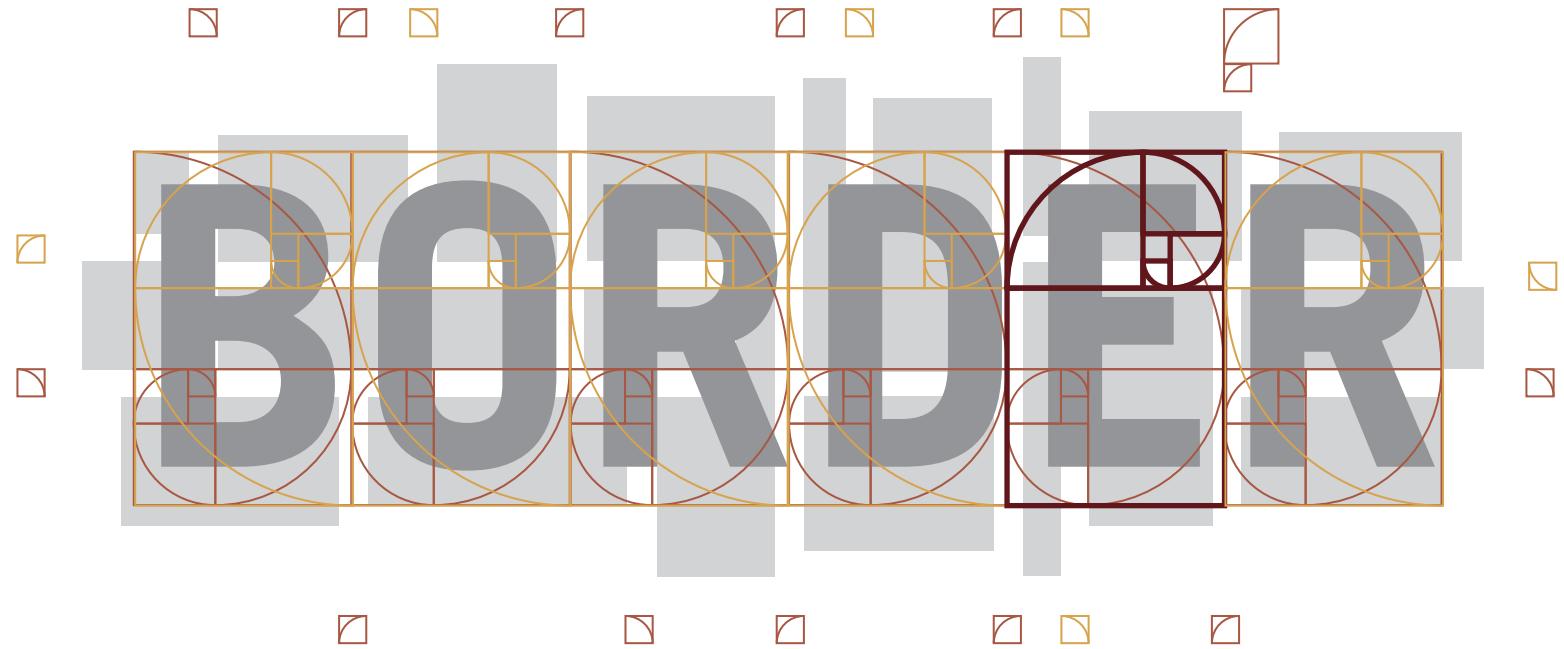
The Border Logo



A Sensitive and Dynamic Topic

The Border, or La Frontera was a year long research project at Chapman University on how borders and immigration influence trade, culture, and interpersonal relationships. I had the opportunity to create the identity for this project as part of a team in the Ideation Lab at the university. Although in the early stages the project focused on the US/Mexico border, the organizers wanted to keep the brand open to talk about the concept of any border.

For this logo, the driving motivator behind it was to show individuals coming together in communities around a border. There are 3 sections in this design, which are more clear when colored. The center, darker section represents a border line which divides the other two sections in all locations, except at a single crossing where the two borders meet. The logo was constructed on a golden ratio grid to help the chaos of the bricks feel more intentional.



Understanding the Grid System

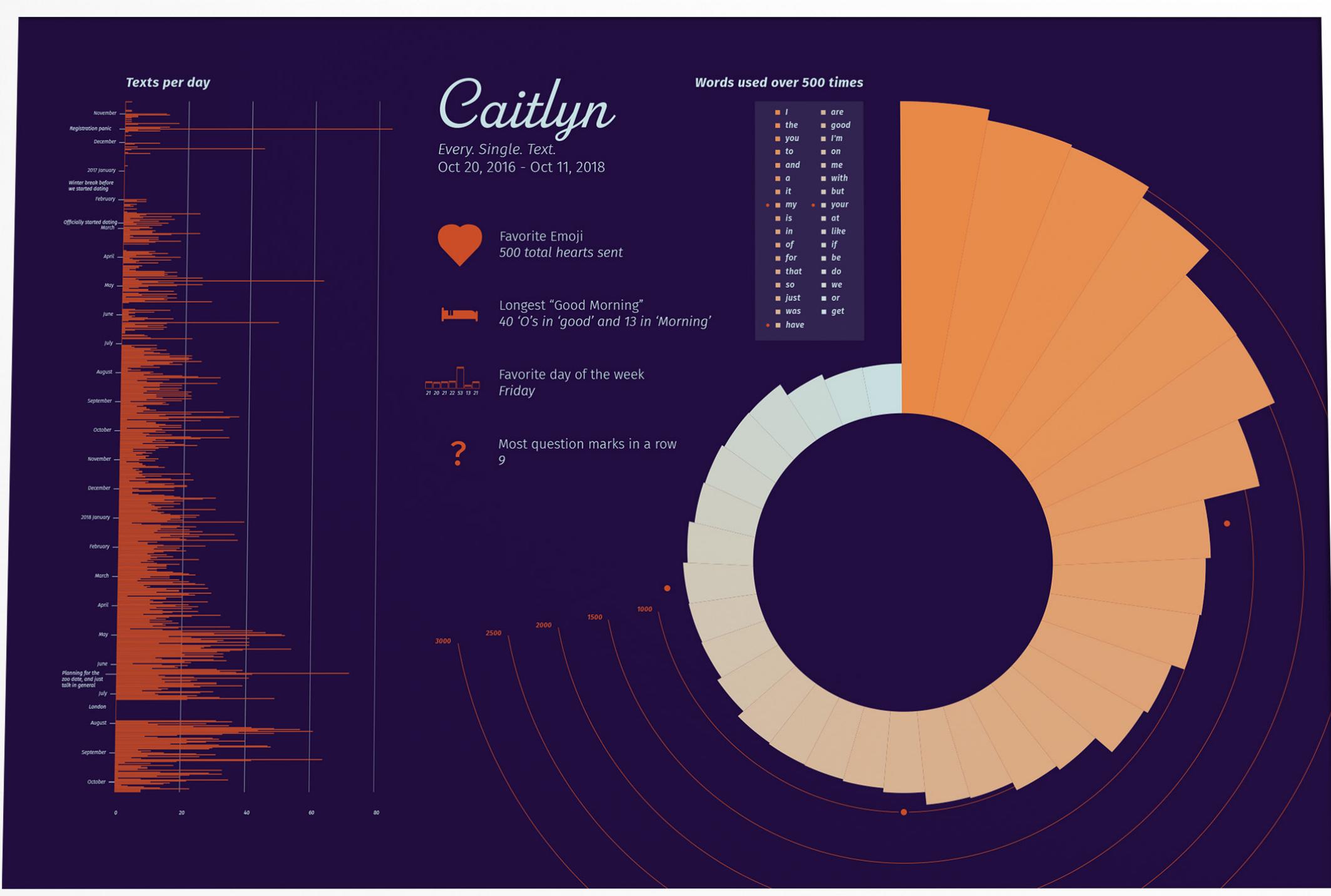
The logo is constructed and spaced out with a mirrored grid constructed with a Fibonacci spiral. The advantages of using a grid like this are:

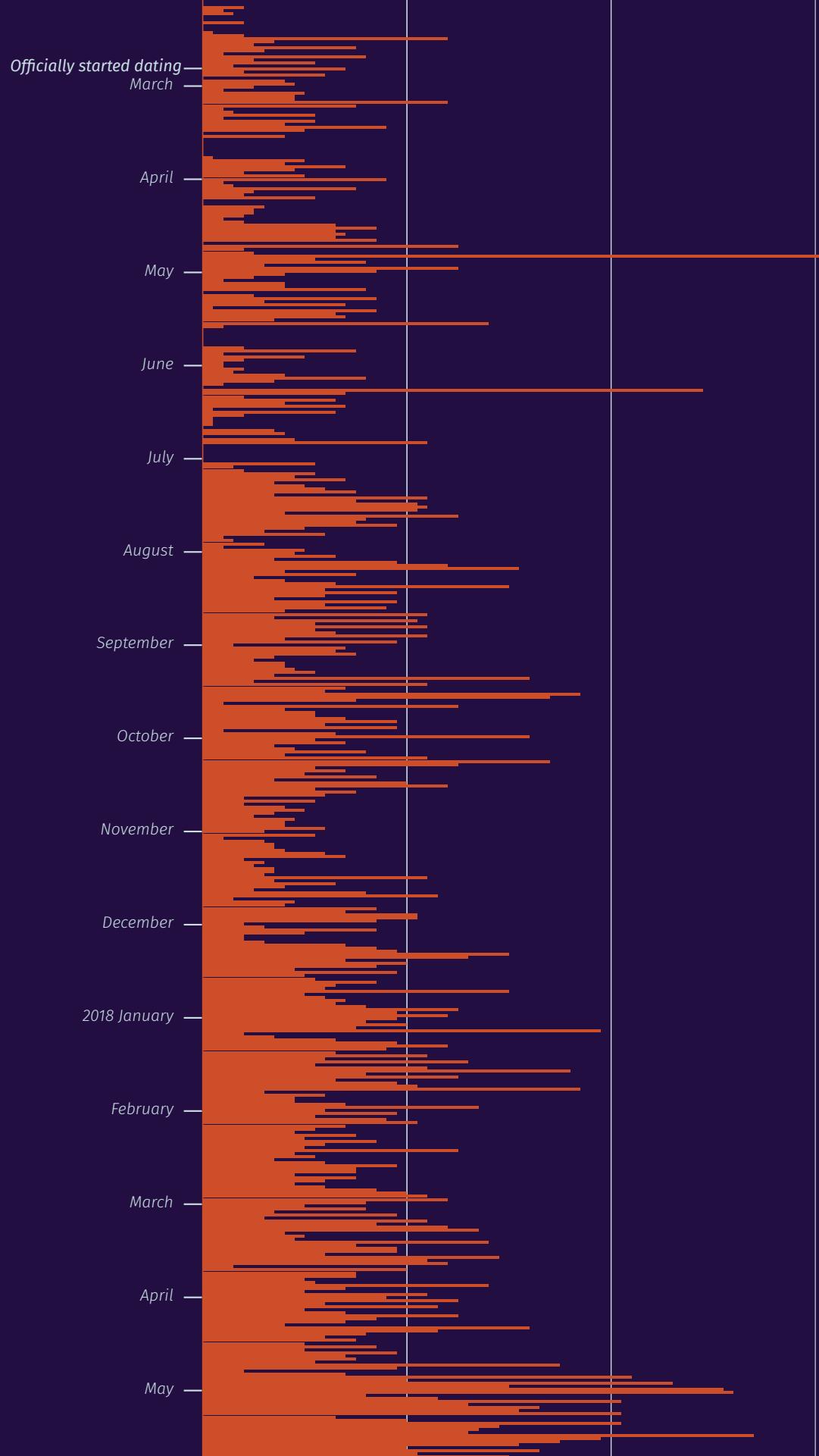
1. Detailed top and bottom grid elements and non-detailed central elements. This allows the boxes to sit behind the typography and preserve the letter forms in the center, while giving freedom to the outer edge to find organic shapes.
2. Division into thirds. This helped in creating the visual appearance of two sections being split by a central area.
3. Creates more vertical columns than horizontal. By adding a spacer block between letters, the grid used allowed for easier vertical segmentation than horizontal segmentation. Vertical segments have more relevant information in recognizing letter forms than horizontal.

After setting up the logo using the grid, several adjustments were made to optically improve the readability and aesthetics of the logo.

Seen below are some explorations of color.



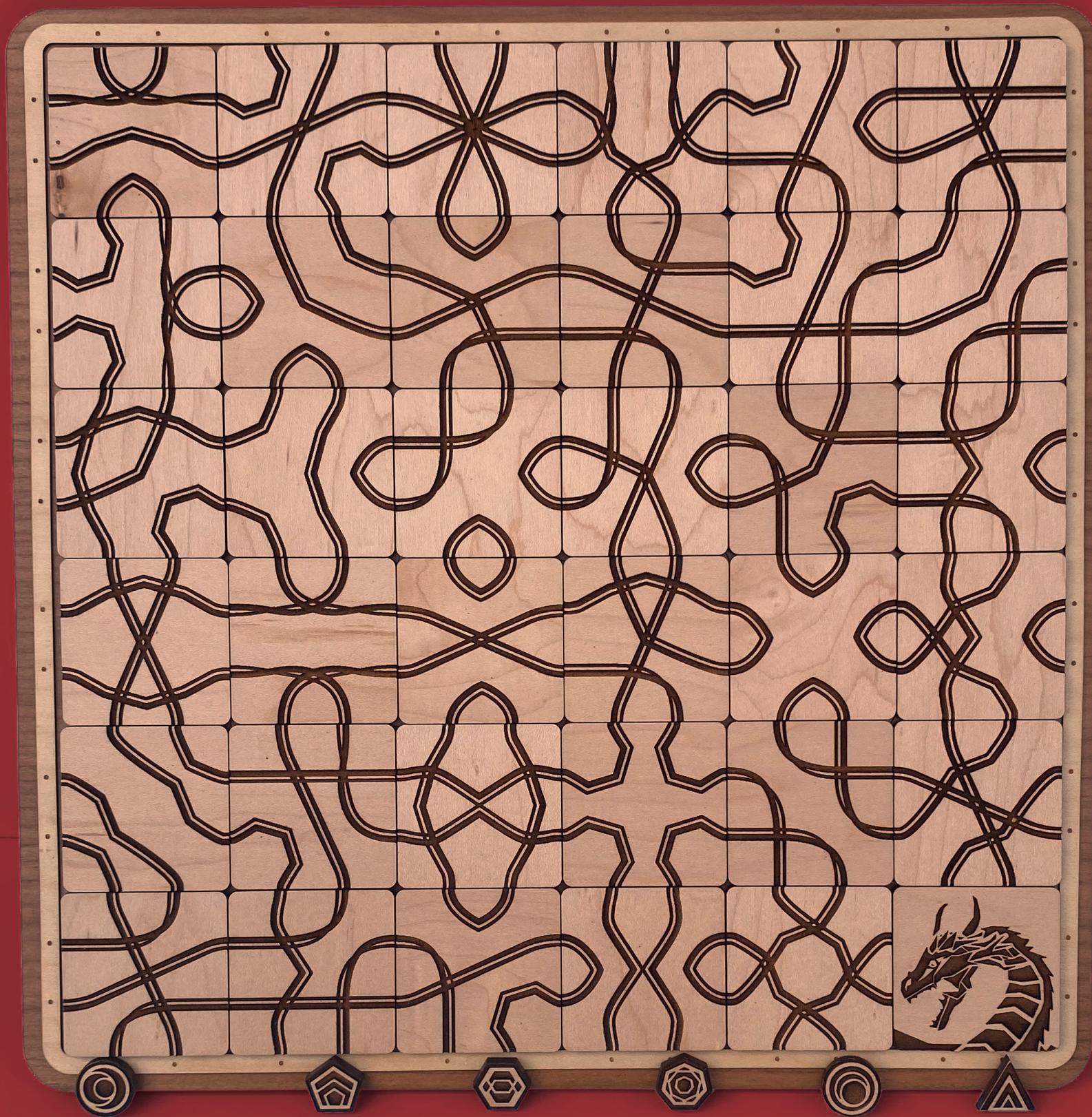




A Celebration of Communication

For this project I collected every text that my girlfriend and I sent to each other since our first text until her birthday. I used a backup software to get the raw data off of my phone. I created a program that would parse the data, filter out other text messages, correct spelling, and add everything to a CSV sheet by word and frequency. I sorted the data in excel, and brought it into Illustrator.

The bar graph to the left is a simple frequency bar graph that shows how much we texted from day to day. The circle graph is a radial bar chart. The height of each bar represents the frequency of that word. The red dots are an orientation device to match the key to the graph.



Tsuro: Board Game Redesign



A Unique Gift of a Game

This is a different take on the popular board game Tsuro, which I made for my brother as a Christmas present. This was the first time I used a laser cutter (the Glowforge), which meant that this project took a lot of planning and preparation to function properly. The board is 1/8" cherry plywood with a maple veneer attached on top, and the tiles are 1/8" maple plywood. Using new tools is always an exciting challenge, and there were many lessons learned along the way. Thankfully, the final product came away with only a few scratches and imperfections to its name.

This Tsuro Board reaches beyond the Japanese influence of the original game, and instead is a blend of different cultures. The design borrows from depictions of Apsara, Chinese Dragons, and westernized Wyvern and Wurms. The hard polygonal design of the illustration contrasts the smooth and rounded edges of the tiles. The tiles themselves are modeled loosely after geometric Henna patterns. Overall, this board was made to facilitate play, so the tiles stand out with brighter wood and simple illustration. While the tiles are more decorative than the standard Tsuro tiles, the paths remain clear even during the most complex intersections. The blend of curves and angular lines creates unique geometric negative space that unfolds uniquely with every game.