

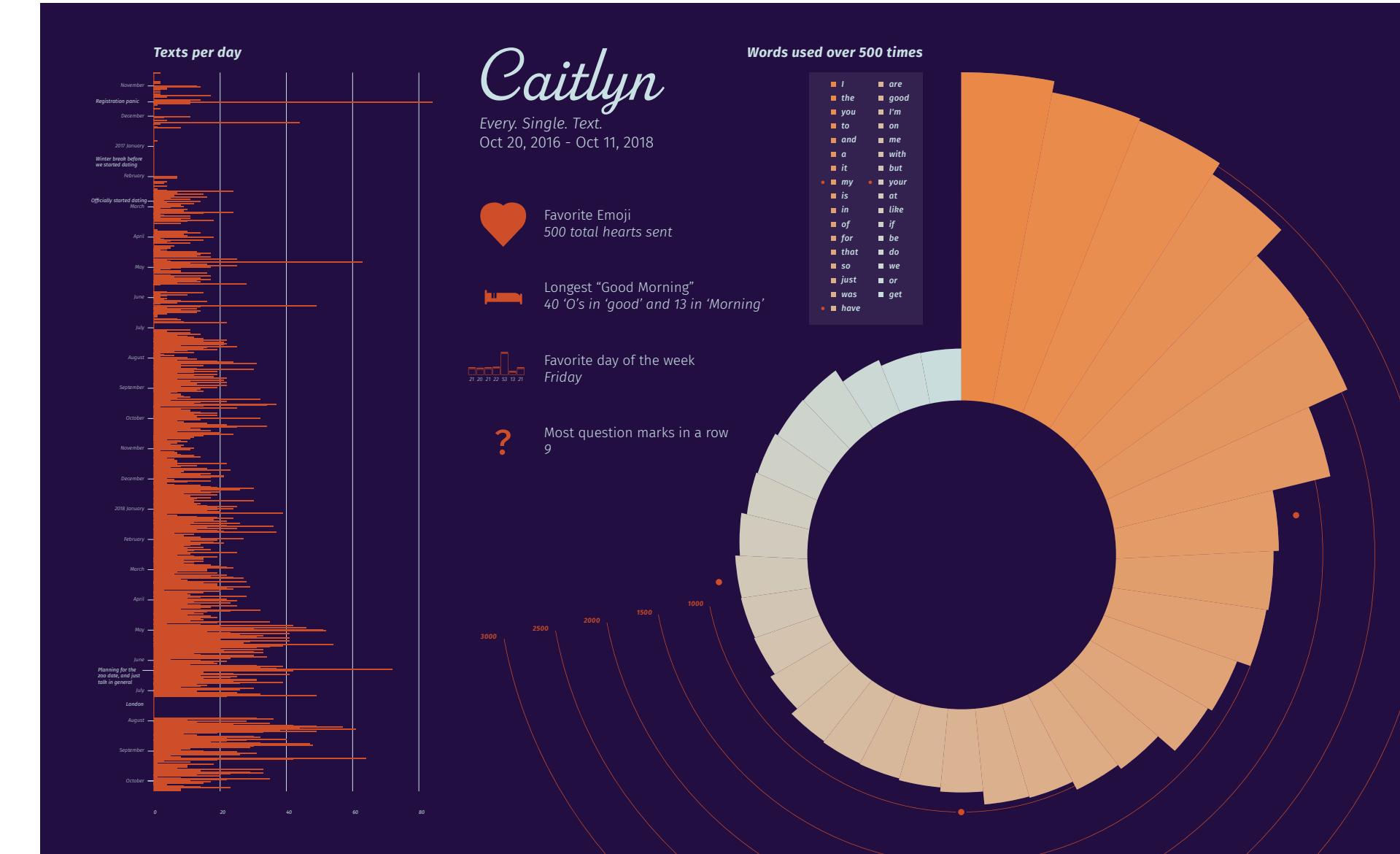
## Programming

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 modified that code to parse dates of the texts into a separate document, and include any missing dates. After this, I sorted the data in excel, and brought it into illustrator.

	A	B
1	i	3223
2	the	3065
3	you	3026
4	to	2852
5	and	2419
6	a	2407
7	it	1942
8	my	1377
9	is	1331
10	in	1316
11	of	1203
12	for	1169
13	that	1002
14	so	970
15	just	910
16	was	905
17	have	820
18	are	797
19	good	790
20	I'm	790
21	on	785
22	me	739
23	with	710

# Birthday Gift



## A Group Process

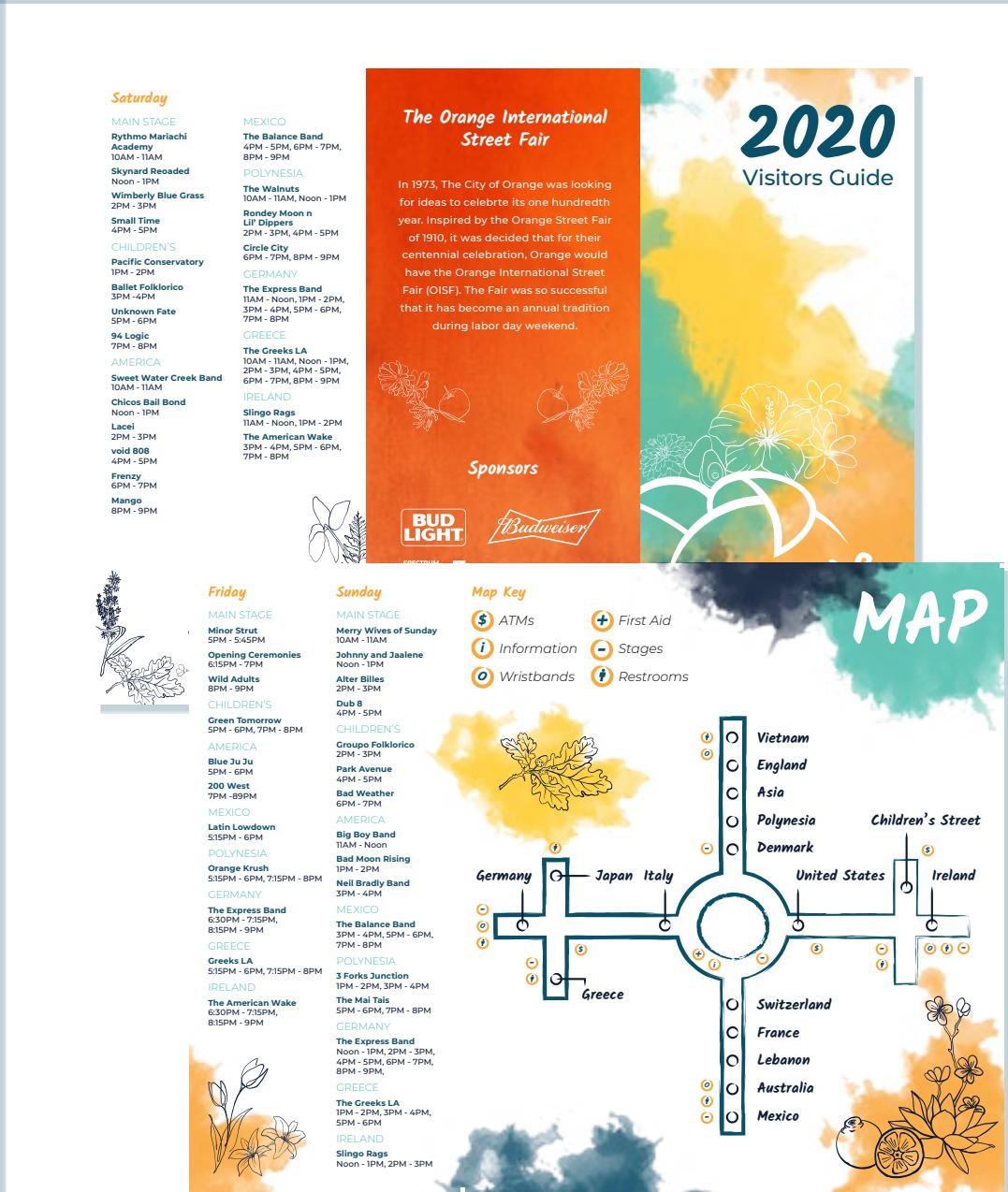


The Orange International Street Fair is a not-for-profit event that takes place at the Plaza in the city of Orange every year on labor day. The event is an opportunity for local non-profit organizations to raise money while bringing the community together.

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 culture 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.

# Orange International Street Fair



## Background

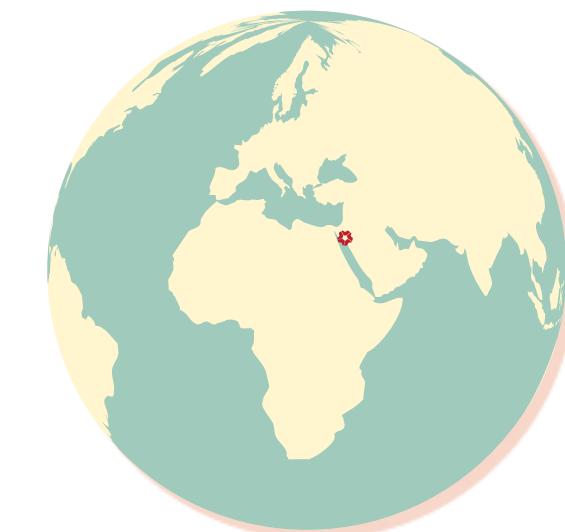
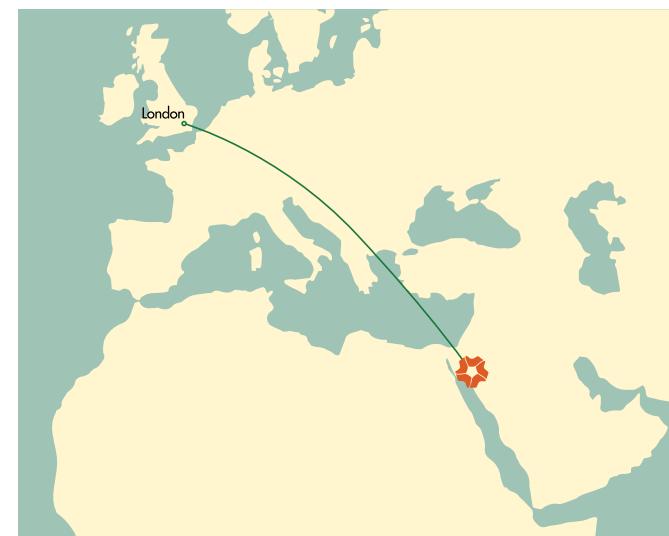
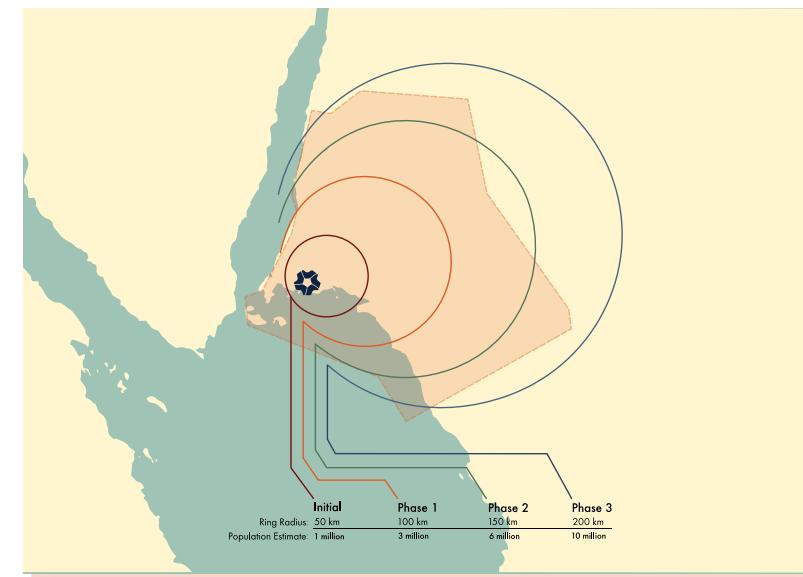
These designs were part of a 5 week summer program on sustainable design. We worked together like an agency. The class worked with Buro Happold, an architectural firm based in London, on the planned city of Neom in Saudi Arabia. The class designed the city accounting for all components of a livable civilization: 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.

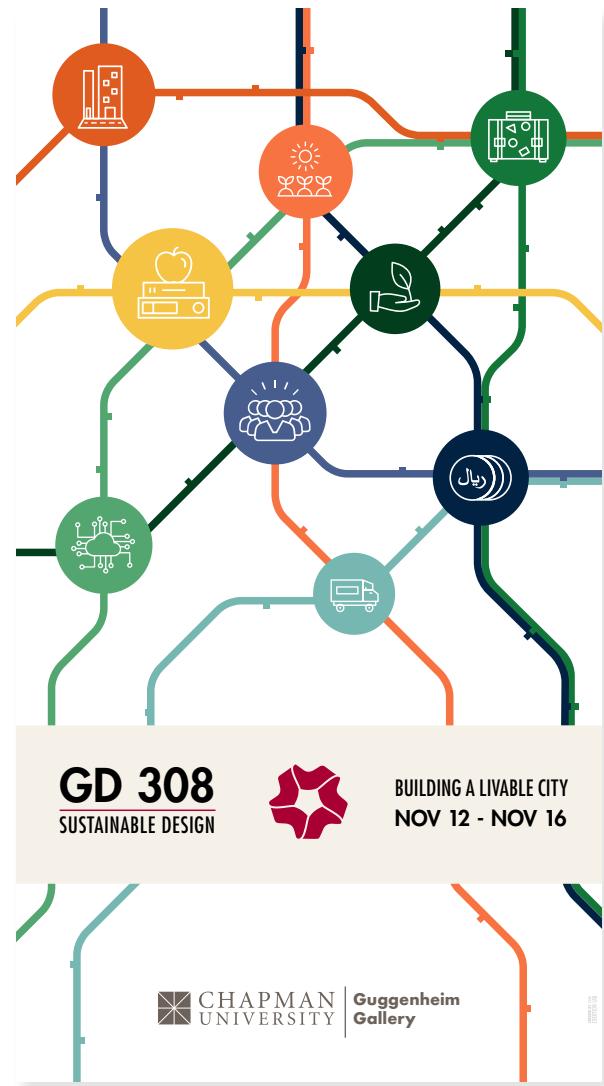
Through my job at Chapman University, I designed a gallery show highlighting the work from the class. I had the responsibility to create the show from the ground up. I planned the gallery out, and created proposals to those who would approve the project.

I was a project manager on all the collateral finished and installed in time for the show. My job was to highlight the positive effects of the class to the higher-ups 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.

# Neom: Presentation and Gallery Design



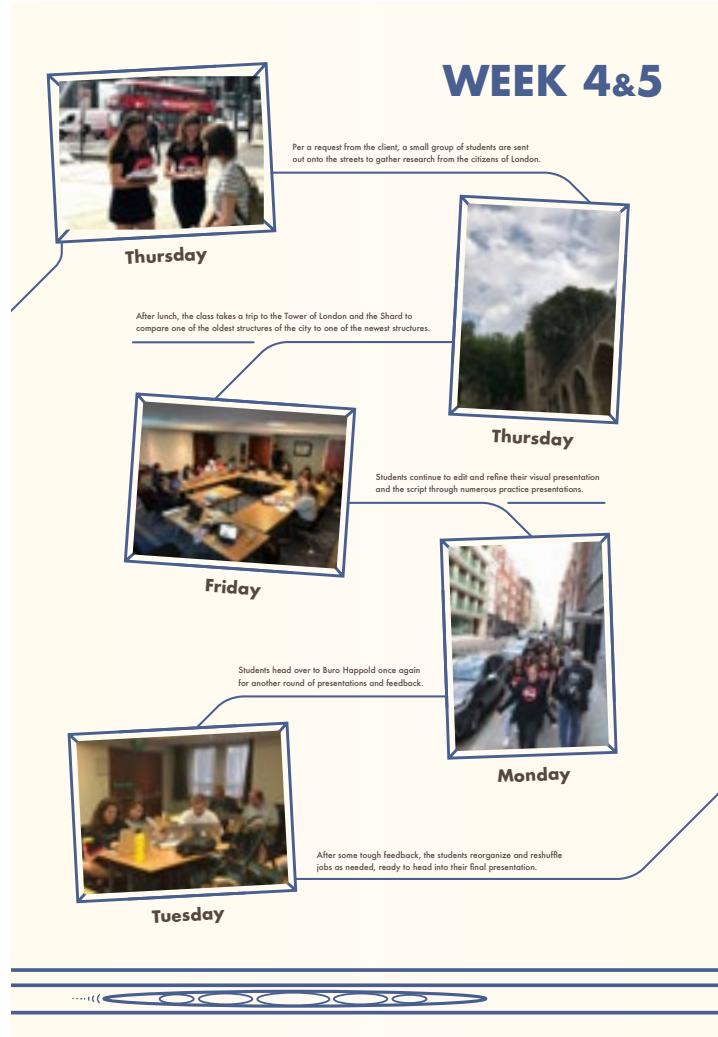
## Gallery Advertising Banner



## Neom: Gallery Design



## Timeline Panel



# Neom: Gallery Design

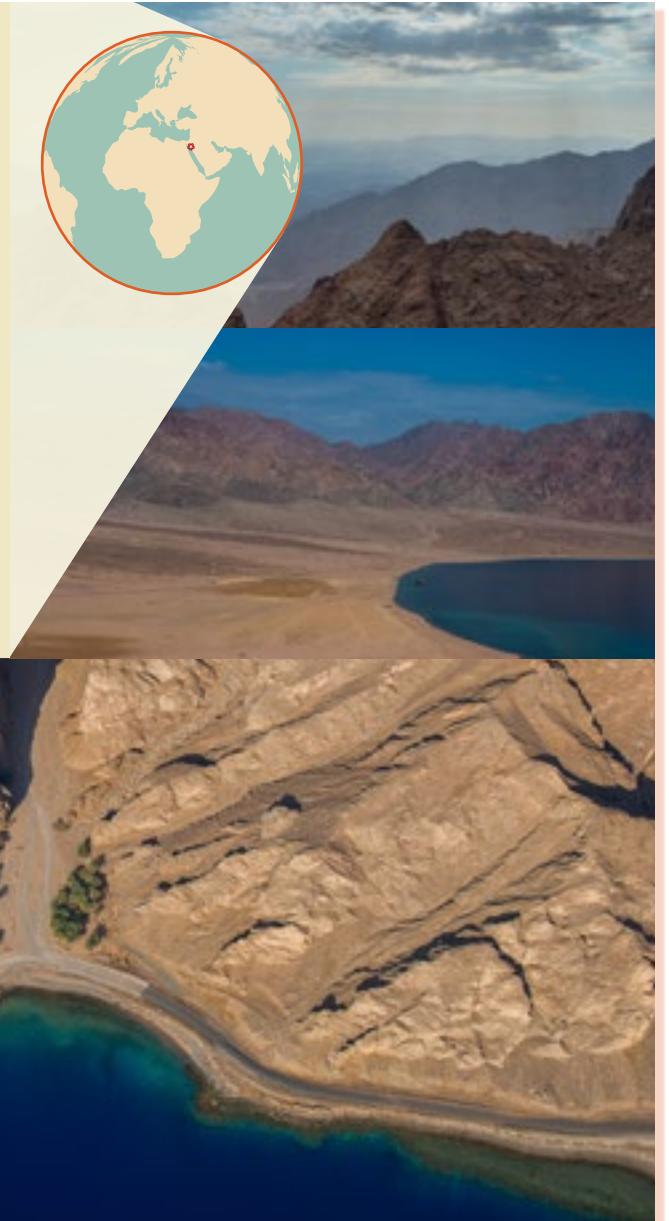


## ABOUT NEOM

Neom will be a city built off the coast of the Red Sea in Saudi Arabia. It will be completely built from the ground up. The project is funded by the current crown prince.

Neom will be a step to move Saudi Arabian money away from oil, and into technology and business. The location is at a prime location for international work and trade. Its coastal setting helps take the edge off of the desert sun.

GD 308 was brought in to analyze what this city needs to be successful.



Initial Sketches

SILVER  
TRUMPET

THE  
SILVER  
TRUMPET

*Silver  
Trumpet*

the  
silver  
trumpet

Silver  
*the*  
trumpet

The  
**SILVER**  
trumpet

# Silver Trumpet: Logo Redesign



SILVER  
TRUMPET

Silver Foil

SILVER  
TRUMPET

Brass Foil

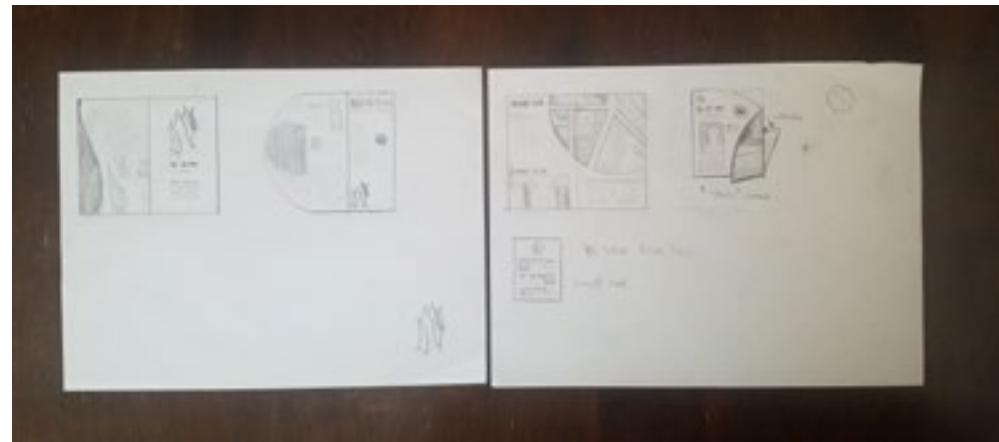
SILVER  
TRUMPET

Deep Purple

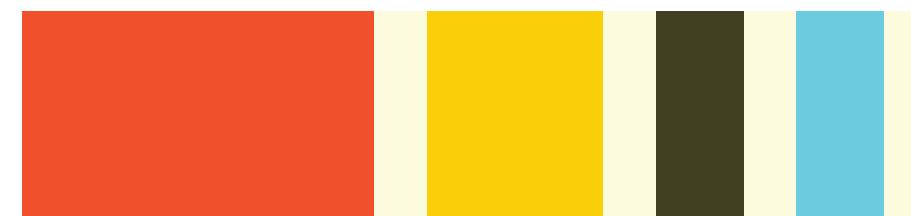
SILVER  
TRUMPET

SILVER  
TRUMPET

Initial Sketches



# Museum of International Folk Art



## Hanging Banners



# MolFA: Brand Collateral



# The Odyssey: Cover and Full Text

### BOOK IV

*The Visit to King Menelaus, Who Tells His Story—Meanwhile the Suitors in Ithaca Plot Against Telemachus.*

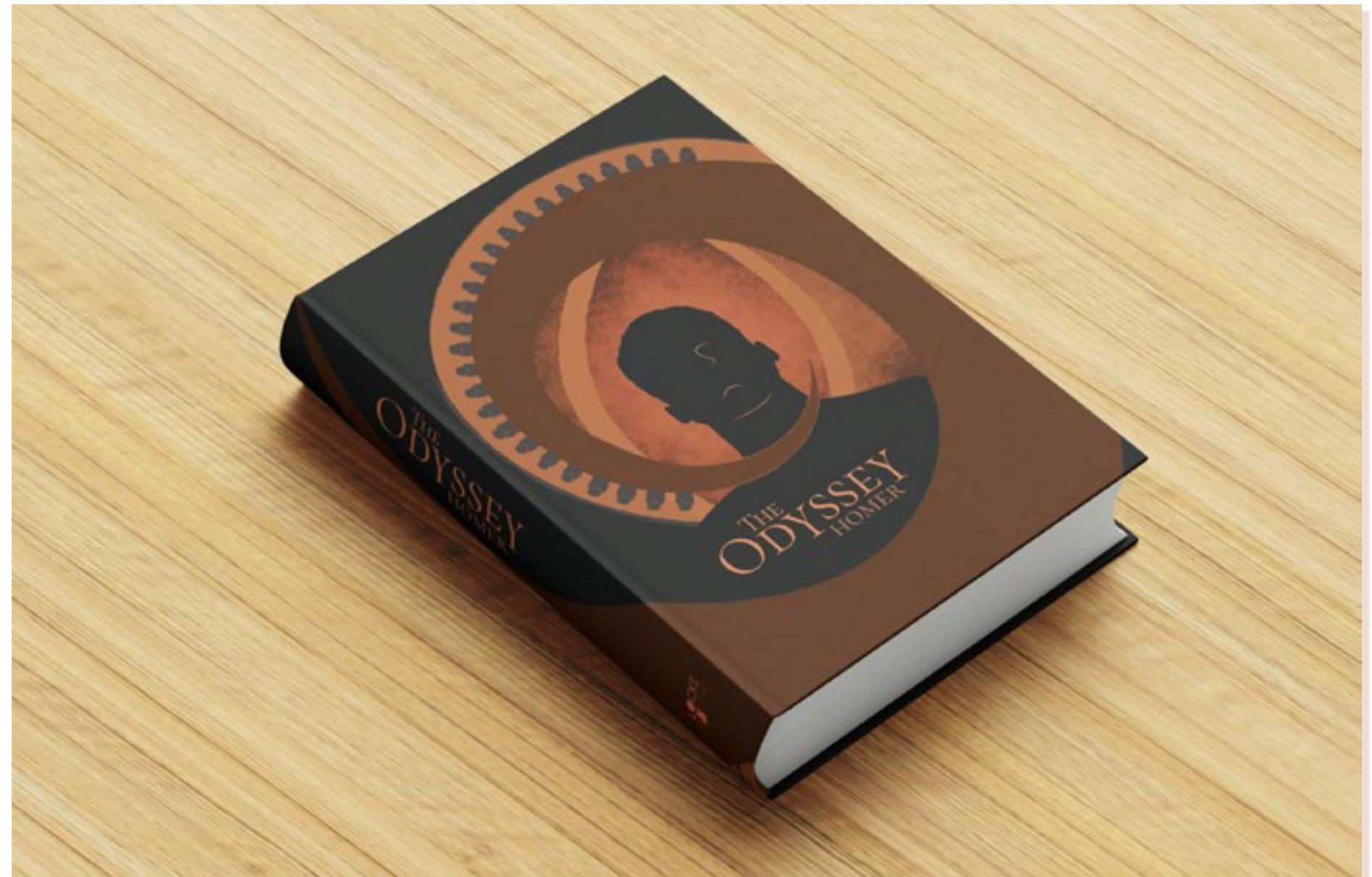
they reached the low lying city of Lacedaemon, where they drove straight to the abode of Menelaus<sup>36</sup> [and found him in his own house, feasting with his many clansmen in honour of the wedding of his son, and also of his daughter, whom he was marrying to the son of that valiant warrior Achilles. He had given his consent and promised her to him while he was still at Troy, and now the gods were bringing the marriage about; so he was sending her with chariots and horses to the city of the Myrmidons over whom Achilles' son was reigning. For his only son he had found a bride from Sparta,<sup>37</sup> the daughter of Alecto. This son, Megapenthes, was born to him of a bondwoman, for heaven vouchsafed Helen no more children after she had borne Hermione, who was fair as golden Venus herself.

So the neighbours and kinsmen of Menelaus were feasting and making merry in his house. There was a bard also to sing to them and play his lyre, while two tumblers went about performing in the midst of them when the man struck up with his tune.<sup>38</sup>

Telemachus and the son of Nestor stayed their horses at the gate, whereon Eteoneus servant to Menelaus came out, and as soon as he saw them ran hurrying back into the house to tell his Master. He went close up to him and said, "Menelaus, there are some strangers come here, two men, who look like sons of Jove. What are we to do? Shall we take their horses out, or tell them to find friends elsewhere as they best can?"

Menelaus was very angry and said, "Eteoneus, son of Boethous, you never used to be a fool, but now you talk like a simpleton. Take their horses out, of course, and show the strangers in that they may have supper; you and I have staid often enough at other people's houses before we got back here, where heaven grant that we may rest in peace henceforward."

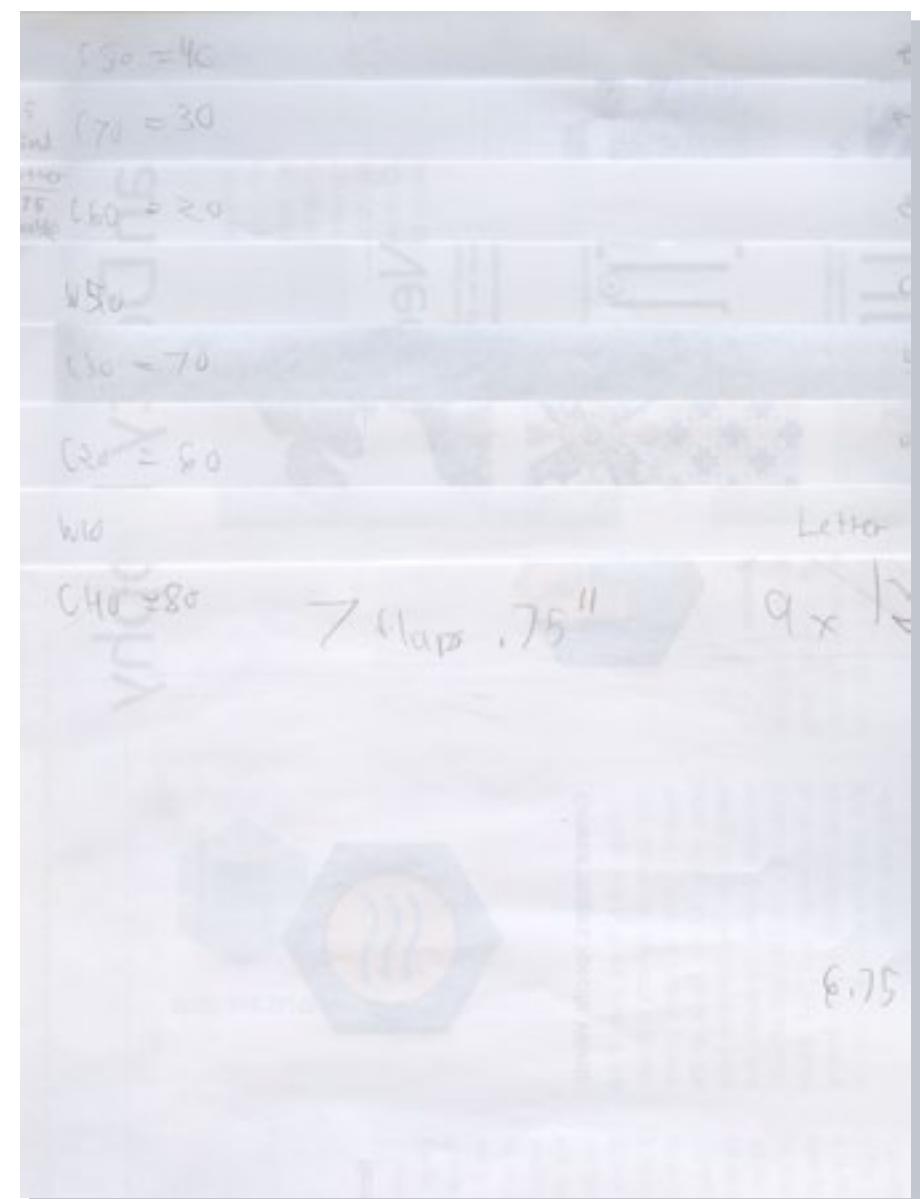
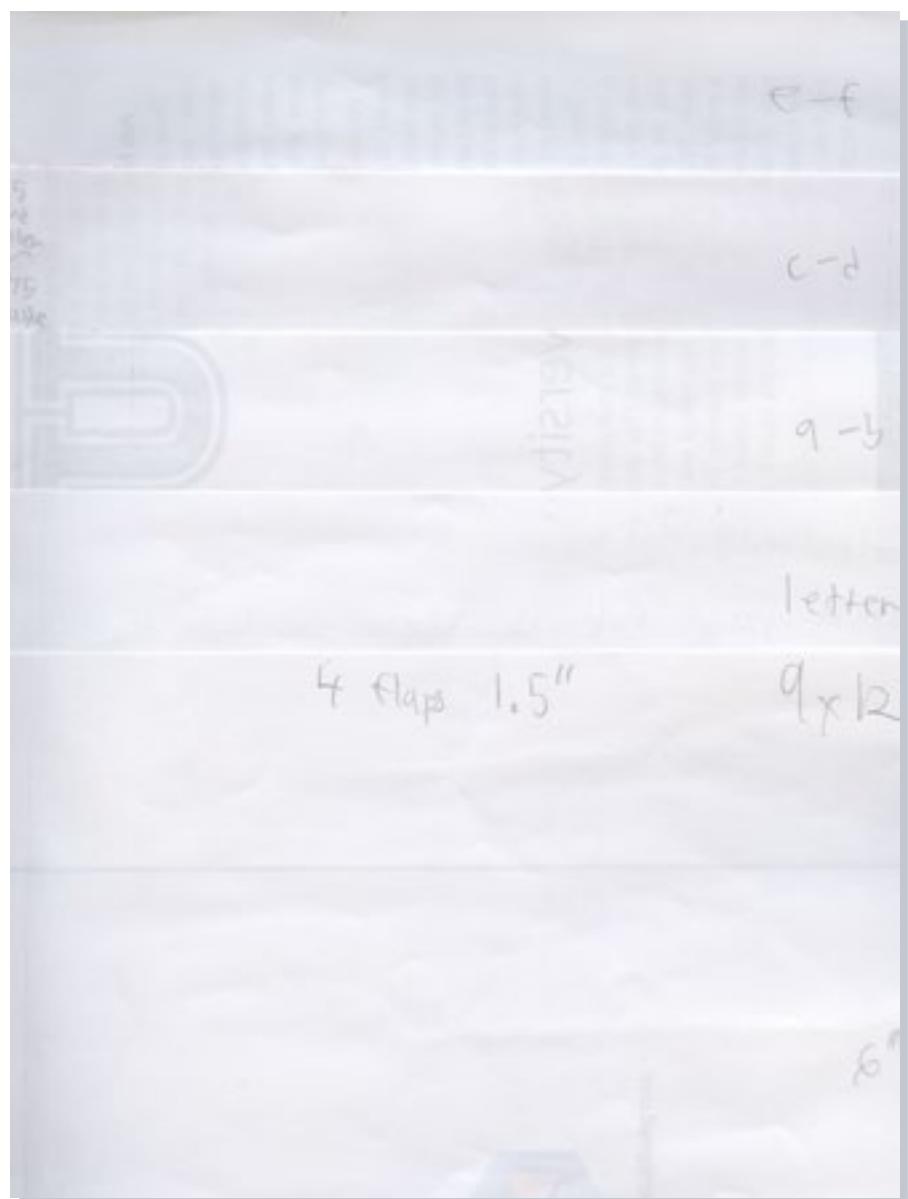
So Eteoneus hustled back and bade the other servants come with him.



## Sketches & Revisions

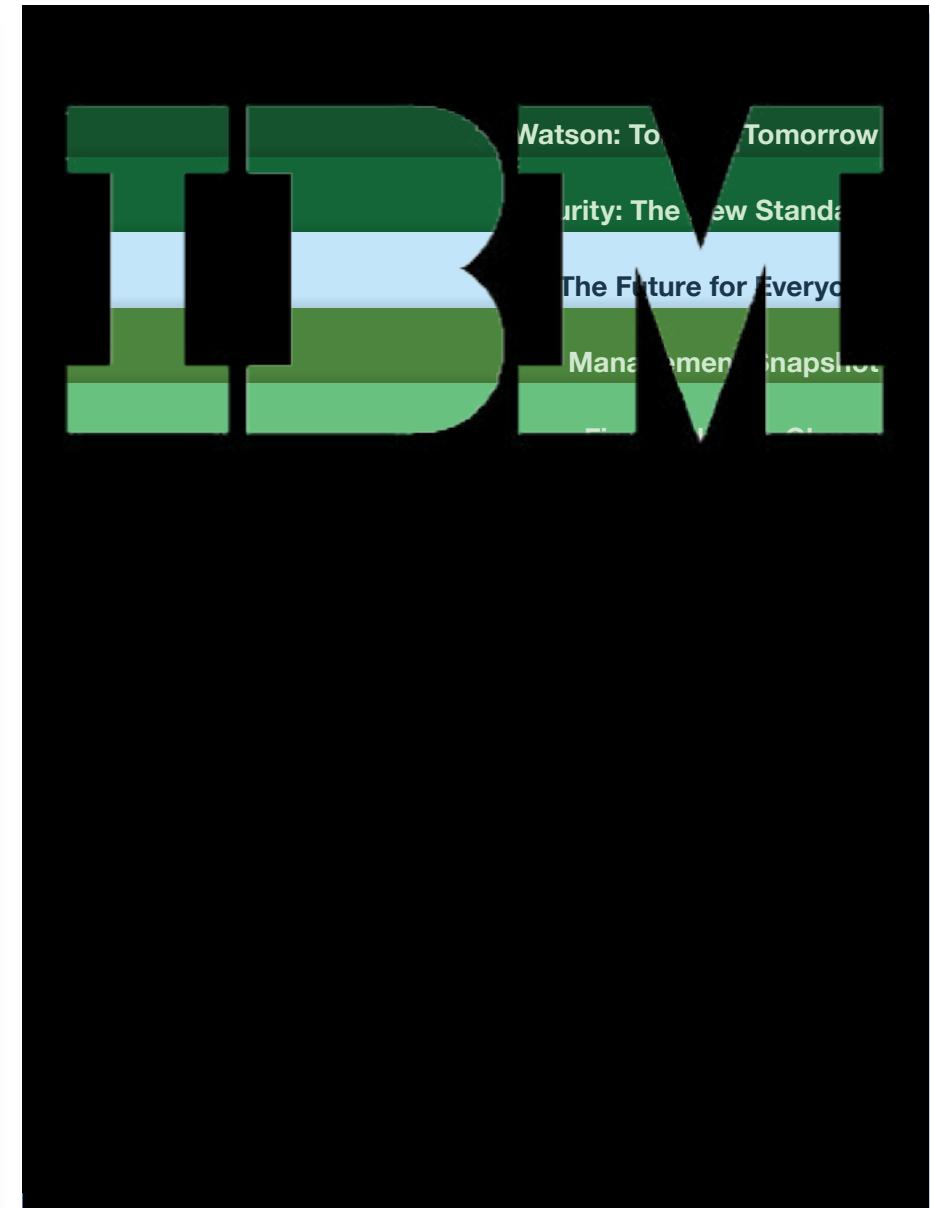


# IBM Annual Report: First Mockups



## Primary Digital Mockups

# IBM AR: Refined Mockup



## Physical Finals



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 the design which felt like it had the most potential, I experimented and refined the tabs to a point where they allowed the idea to shine and the text to be read. 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.

# IBM AR: Final Design



For the year ended December 31:		
	2017	2016
Revenue	\$ 79,139	\$ 78,210
Gross profit margin	(1.2)% 43.0%	(0.5)% 43.0%
Total expense and other (income)	\$ 24,827	\$ 25,954
Interest expense, net of interest-income ratio	\$ 2,400	\$ 2,300
Income from continuing operations before income taxes	\$ 11,400	\$ 12,330
Provision for income taxes from continuing operations	\$ 5,542*	\$ 4,449
Income from discontinued operations	\$ 1,500	\$ 1,500
Income from continuing operations margin	7.3% 14.9% (7.0)pp	7.5% 14.9% (7.0)pp
Loss from discontinued operations, net of tax	\$ 8	\$ 12
Net Income	\$ 5,272*	\$ 11,872
 Earnings per share from continuing operations:		
Assuming dilution	\$ 5.14**	\$ 12.38
Considering earnings per share - assuming dilution	\$ 5.14**	\$ 12.38
 Weighted-average shares outstanding		
Assuming dilution	9,024	10,647
Assets	\$ 275,265	\$ 175,473
Liabilities	\$ 107,631	\$ 18,578
Equity	\$ 177,225	\$ 163,892
 Dilution in earnings:		
*1.2 percent adjusted for currency. **Includes a one-time charge of \$5.1 billion associated with the acquisition of Red Hat, net of \$2.6 billion of diluted earnings per share in 2017.		

**SUMMARY OF MANAGEMENT**  
In 2017, the company reported \$79.1 million in revenue from continuing operations, which includes a one-time charge of \$5.1 billion associated with the acquisition of Red Hat, net of \$2.6 billion of diluted earnings per share in 2017. The company returned to revenue growth in the fourth quarter with an increase of 1.6 percent reported and 0.3 percent adjusted for currency. Year-to-date revenue performance remained sequential in the second half of 2017 compared to first-half performance. Strategic investments in research and development increased sequentially as the economic context turned on a year-to-year basis.

**GLOBAL BUSINESS SERVICES (GBS)**  
provides clients with consulting, application management services and business process services. These professional services include strategy, technology, consulting, application management, infrastructure and system maintenance, testing and quality management, and delivery services. GBS is the strategic partner for IBM clients, combining industry knowledge, technology and experience with deep domain expertise in business design and cognitive and cloud technologies. The full portfolio of GBS services is backed by its globally integrated delivery network, which includes more than 100,000 professionals and services from IBM units including IBM Watson, IBM Cloud, IBM Research and Global Technology Services.

**GBS CLOUD**  
Consulting provides business consulting services focused on bringing to market solutions that help clients shape their digital transformation. The consulting model features a single operating model, unlock the potential in all data to improve decision-making, set their next-generation talent strategies and create competitive advantage.

**Application Management**: provides clients with consulting, application management services and business process services. Services include strategy, technology, consulting, application management, infrastructure and system maintenance, testing and quality management, and delivery services. GBS is the digital reinvention partner for IBM clients, combining industry knowledge, functional expertise, and applications with the latest cognitive and cloud technologies. The full portfolio of GBS services is backed by its globally integrated delivery network, which includes more than 100,000 professionals and services from IBM units including IBM Watson, IBM Cloud, IBM Research, and Global Technology Services.

**GLOBAL MARKETS**  
IBM has a global presence, operating in more than 125 countries with a broad-based geographic distribution of clients. The company's Global Markets organization manages IBM's global business, working closely with its international country-based operating units to serve clients locally. These local units have deep domain expertise and are supported by integrated teams of consultants, solution specialists and delivery professionals. The Global Markets organization also brings opportunities. The Global Markets organization serves clients through its extensive network of offices, which provide access to new and existing clients through digital marketplaces, digital sales and local Business Partner resources. In the normal course of business, revenue from fixed-price design and implementation contracts is recognized over the term of the contract using the percentage-of-completion (POC) method. Under the POC method, revenue is recognized based on the labor costs incurred to date as a percentage of the total estimated labor costs to fulfill the contract. If circumstances arise that change the original estimate, additional costs will be recognized or previously recognized revenues will be reduced to the extent that the revised estimates are made. These revised estimates are used to determine the amount of revenue or costs, and such revisions are reflected in income statement. Revenues from time-and-materials contracts that give rise to the revision become known by the company.

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**Global Markets**: delivers finance, procurement, talent and engagement, and industry-specific business process management services. The company's Global Markets organization results to clients through our consult-to-operate model which includes strategy, technology, consulting, application management, infrastructure and system maintenance, testing and quality management. The Global Markets organization serves clients through its extensive network of offices, which provide access to new and existing clients through digital marketplaces, digital sales and local Business Partner resources. In the normal course of business, revenue from fixed-price design and implementation contracts is recognized over the term of the contract using the percentage-of-completion (POC) method. Under the POC method, revenue is recognized based on the labor costs incurred to date as a percentage of the total estimated labor costs to fulfill the contract. If circumstances arise that change the original estimate, additional costs will be recognized or previously recognized revenues will be reduced to the extent that the revised estimates are made. These revised estimates are used to determine the amount of revenue or costs, and such revisions are reflected in income statement. Revenues from time-and-materials contracts that give rise to the revision become known by the company.



## Effective Communications

Explainable Artificial Intelligence (XAI) is a difficult subject to explain. For a large scale artificial intelligence company, one of the biggest challenges is convincing a senior level executive or a board member to invest in custom Artificial Intelligence solutions. The company already has some introductory whitepapers, but most of it can seem like a wall of text. There was a need for a new, introductory document to help potential customers learn a bit about the company and the unique software services they can provide.

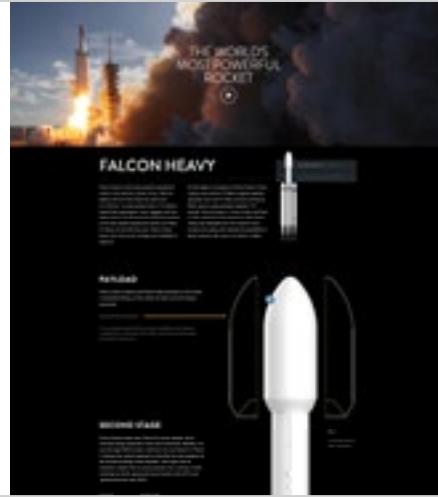
Part of creating this graphic was convincing the rest of the marketing team that this idea was worth pursuing. At the time, there was no baseline introductory material for people new to the idea of AI. This deck was also instrumental in creating a graphic that would resonate with the audience. It helped the team anchor the information as we moved forward in writing. It was consistently helpful to have this research deck to refer back to as we developed the story.

# Presentation Deck: What is XAI?

**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.)

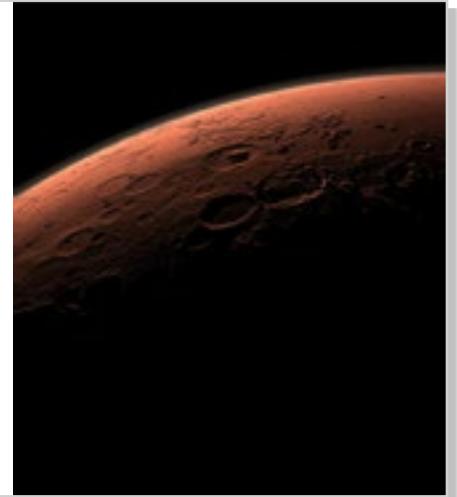
**UNKNOWN**  
Difference between XAI and Conventional AI  
How AI actually works  
Applications of machine learning on a broad scale  
May fear AI will bring job losses  
How common AI is

**WHO**  
Should be acceptable to show to our executive clients, but should also be a tool for broader brand awareness  
Fits in to top of funnel advertising  
Actively looking for information on XAI, or directed from Beyond Limits



**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.



**NARRATIVE COMPOSITION**  
XAI is a natural extension from a desire to make traditional AI more trustworthy. These options revolve around different explorations of trust.

### RESPONSIBILITY OF AI

### RESOLVING UNCERTAINTY

### ELEMENTS OF HUMAN-LIKE AI

## Sketches and Intent



This infographic was designed as a static scrolling image. This graphic would be used for introducing people to the concept of artificial intelligence. I worked with a copywriter to build the narrative of the 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.

# Presentation Deck: What is XAI?

A presentation slide titled "Explainable AI" featuring a background image of shipping containers and the text "WHAT DECISIONS CAN YOU TRUST?".



### 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

### 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 humans to make 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