SEMESTER ONE

FALL 2020

MARGINS

MARGINALIA

MARGINALITY

MARGINALIZATION

GD 501

PROFESSOR ◇ DENISE GONZALES CRISP ◇

MANIFESTO

John Chris Jones

CLASS GUIDELINES

1 BEGIN WITH WHAT CAN BE IMAGINED

2 USE BOTH INTUITION & REASON

3 WORK IT OUT IN CONTEXT

4 MODEL CONTEXTUAL EFFECTS OF WHAT IS IMAGINED

5 CHANGE THE PROCESS TO SUIT WHAT IS HAPPENING

6 REFUSE WHAT DIMINISHES

7 SEE INSPIRATION IN WHAT IS

8 CHOOSE WHAT DEPENDS ON EVERYONE

TABLE OF PROPOSITIONS
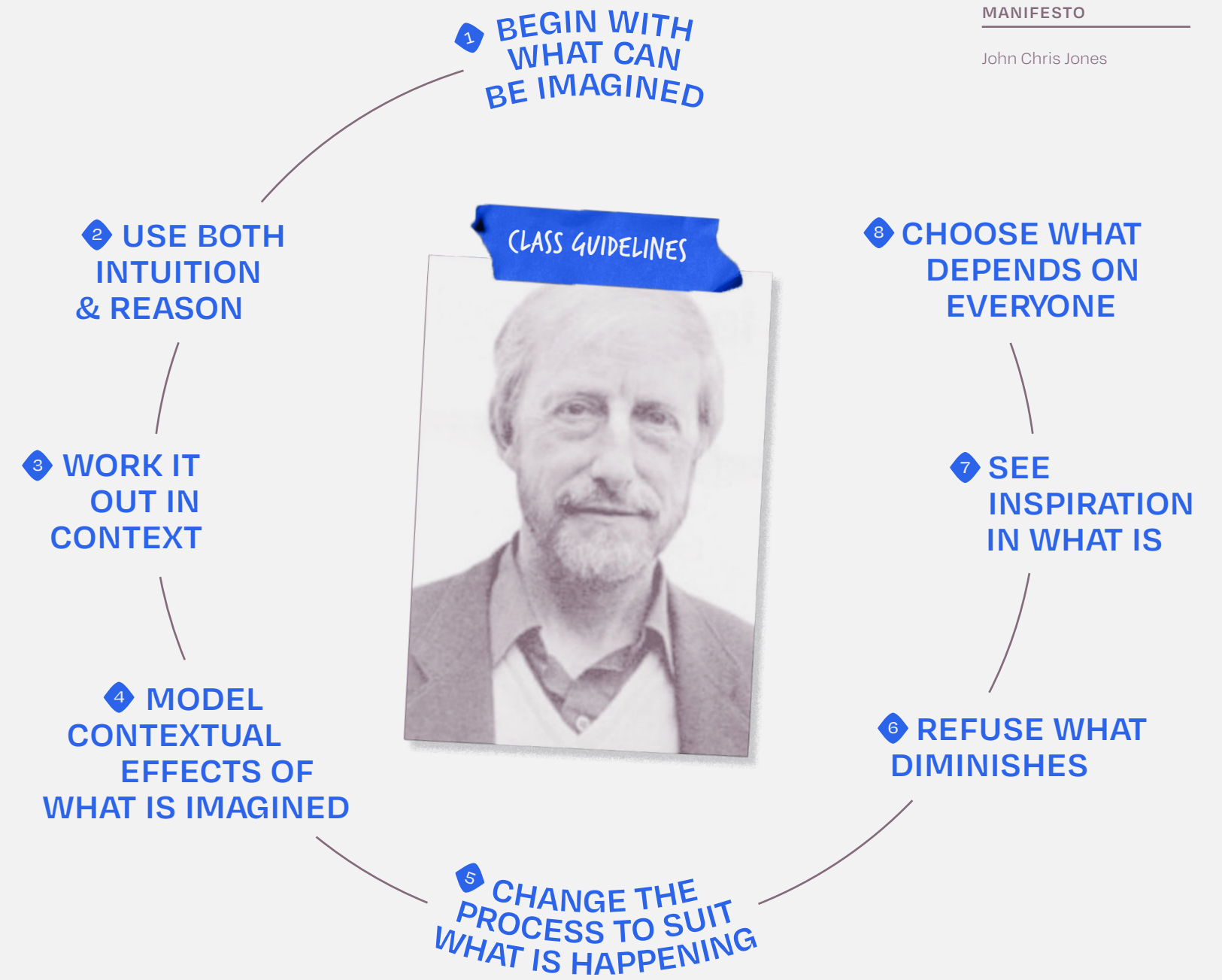
PROPOSITION ◇ 01   P. 8

How might the design of a personal space, presented on a video meeting platform, foster a sense of nearness & invite varied yet specific activity? How might the design adapt to changing circumstances over time?

PROPOSITION ◇ 02   P. 8-9

Explore the meaning of nouns randomly selected, assigned & matched to one of Jones' rubrics (aka Course Objectives). Seek connections to related things & systems — designing towards conveying findings rather than capturing findings.
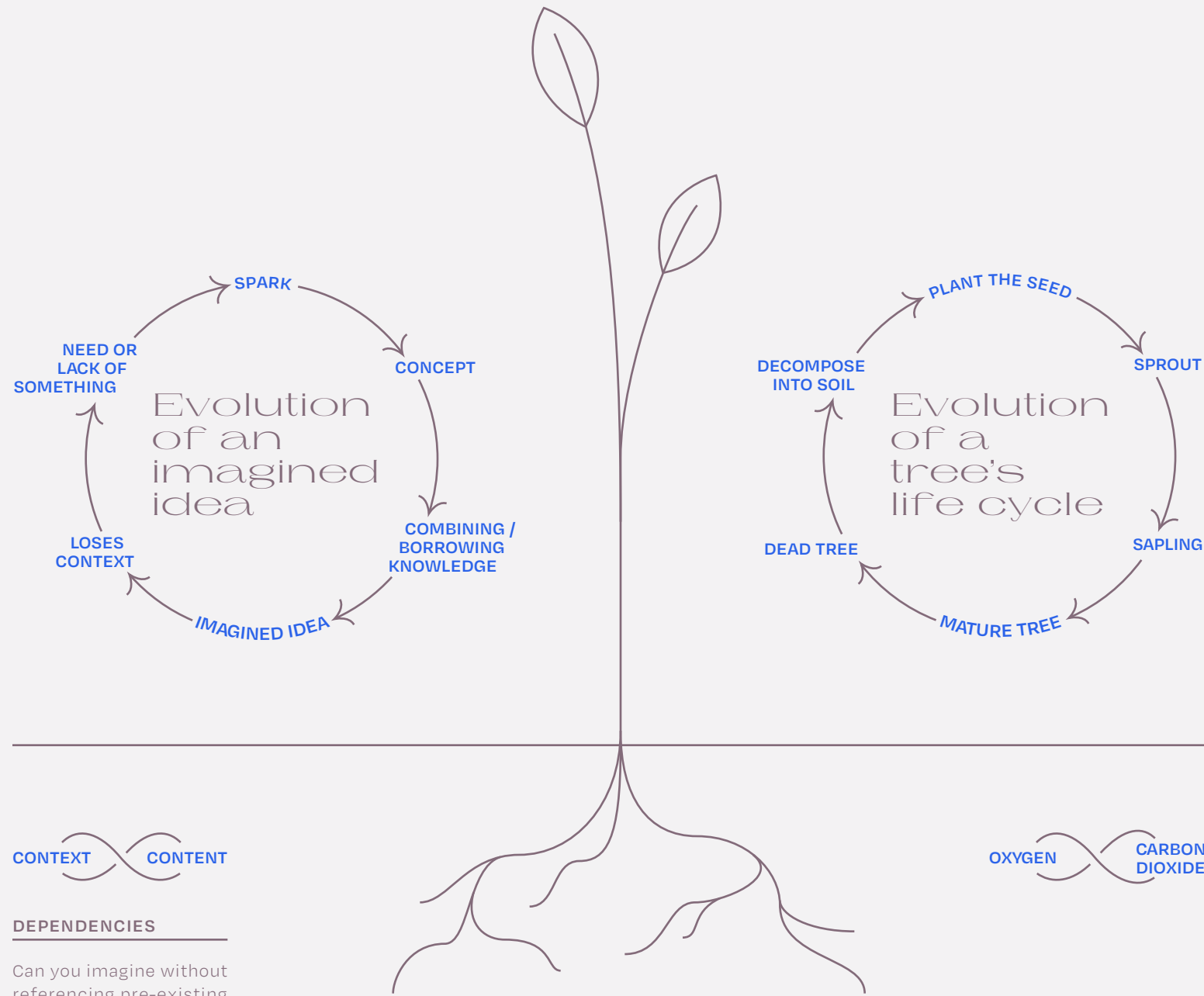
PROPOSITION ◇ 03   P. 10-11

Figure in the design of systems, social contracts, & things within the findings from Proposition 02. Identify, investigate, & scrutinize "Design for Good," "Social Design," & "Participatory Design." Create design queries & find a focus for "Makestorming." Through "Mini-stabs," quickly ideate the possibilities within the topic. Establish a direction for Prop 03 through an explanatory/exploratory video, prompted by the Mini-Stabs.

PROPOSITION ◇ 04   P. 10

Two-week period where students lead and participated in workshops: "How to Draw a Squirrel," "How to Meditate," a "Surveillance Workshop," & a three-day reprieve with structured activities.

PROPOSITION ◇ 05   P. 12-15

Create a "preliminary report" on the topic, a kind of portal or access point to the topic as it relates to design. Establish a plan that is consistent with the course objectives, avoiding the typical process to research, ideation, iteration, & final design. Design toward a culmination & pause.
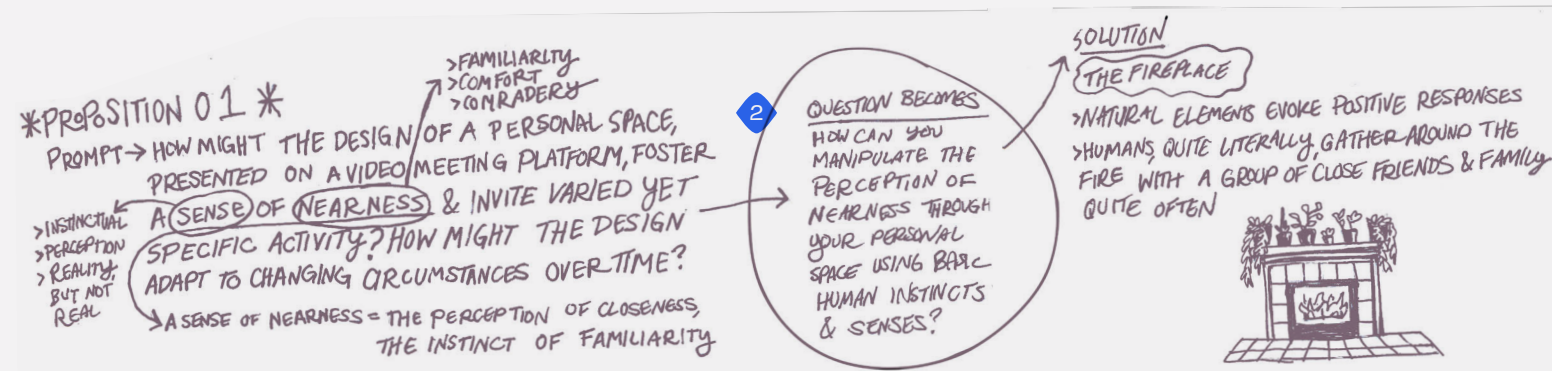
Evolution of an imagined idea

- SPARK
- CONCEPT
- COMBINING / BORROWING KNOWLEDGE
- IMAGINED IDEA
- LOSES CONTEXT
- NEED OR LACK OF SOMETHING

Evolution of a tree's life cycle

- PLANT THE SEED
- SPROUT
- SAPLING
- MATURE TREE
- DEAD TREE
- DECOMPOSE INTO SOIL

CONTEXT ⟷ CONTENT

OXYGEN ⟷ CARBON DIOXIDE

DEPENDENCIES

Can you imagine without referencing pre-existing knowledge? Is imagining placing content into an unknown context? Can something be imagined from nothing?

★ PROPOSITION 0 1 ★
PROMPT → HOW MIGHT THE DESIGN OF A PERSONAL SPACE, PRESENTED ON A VIDEO MEETING PLATFORM, FOSTER A SENSE OF NEARNESS & INVITE VARIED YET SPECIFIC ACTIVITY? HOW MIGHT THE DESIGN ADAPT TO CHANGING CIRCUMSTANCES OVER TIME?
> INSTINCTUAL > PERCEPTION > REALITY BUT NOT REAL
> A SENSE OF NEARNESS = THE PERCEPTION OF CLOSENESS, THE INSTINCT OF FAMILIARITY

> FAMILIARITY > COMFORT > COMRADERY

QUESTION BECOMES
② HOW CAN YOU MANIPULATE THE PERCEPTION OF NEARNESS THROUGH YOUR PERSONAL SPACE USING BASIC HUMAN INSTINCTS & SENSES?

SOLUTION
THE FIREPLACE
> NATURAL ELEMENTS EVOKE POSITIVE RESPONSES
> HUMANS QUITE LITERALLY GATHER AROUND THE FIRE WITH A GROUP OF CLOSE FRIENDS & FAMILY QUITE OFTEN

PROMPT

Seek connections to related systems & create a hypothesis based on your findings.

① Begin with what can be imagined & Trees

THE FIRST IDEA: A MYTHOLOGY

Many cultures begin their story with a tree—the world tree, the tree of life, the tree of knowledge. The tree is the beginning. It's not a stopping point. Its power expands beyond how far its branches can go & pierces into the chaos. I am the same as the tree. I began as a small seed planted into the depths. Once I sprouted, variations of myself started diverging into different branches. My branches grew exponentially. Each new branch grew farther from the roots to the point where the leaves did not recognize each other. My leaves blossomed, detached & flew away in the wind to grow somewhere else. I became a part of everyone everywhere. There were no boundaries to what I could become. I am still morphing & regenerating into something different everyday. I am the first idea ever imagined. I began as a seed & then I blossomed into everything imaginable.

TEAMMATES

Casey Stanek
& Syashi Gupta

IMAGINING is the CONSCIOUS EXPLORATION of our SUBCONSCIOUS ROOTS.

THE IMAGINATION CREATES THINGS THAT ARE NOT ACTUALLY PRESENT TO THE SENSES. IT ALLOWS US TO THINK OF THE POSSIBILITIES BEYOND THE LIMITATIONS OF OUR REALITY.

CONSCIOUSNESS IS DEFINED AS BEING AWARE AND AWAKE TO THE PRESENT AND WHAT IS AROUND US. HOW DO WE BEGIN TO UNDERSTAND & SCRUTINIZE OUR REALITY?

TO CONSCIOUSLY EXPLORE, WE MUST DELIBERATELY & INTENTIONALLY RESPOND TO OR ANALYZE OUR SUBCONSCIOUS ROOTS. WHAT WAYS CAN WE DESTROY, REFRAME OR REPLANT THOSE LIMITATIONS?

IN THIS CONTEXT, WE ARE NOT REFERRING TO THE FREUDIAN THEORY OF A SUBCONSCIOUS OR UNCONSCIOUS MIND. WE ARE REFERRING TO A PERSON'S INSTINCTS AND HIS/HER CULMINATION OF EXPERIENCES, BELIEFS AND CULTURE THAT INFLUENCE THE WAY THAT HE/SHE THINKS AND BEHAVES WITHOUT THE PERSON'S DIRECT AWARENESS.

YOUR ROOTS CAN BE DESCRIBED AS THE CONNECTIONS TO YOUR PERSONAL AND PAST EXPERIENCES.

LET YOUR VOICE BE SEEN

Type is a building block the cornerstone of design. It's seen & used by everyone ……………………………… *But…the field of type design is made up of mostly white men. Does this homogeneous body of type designers create a lack of culture & character in type for designers of different backgrounds to create from?... Yeah Probably*
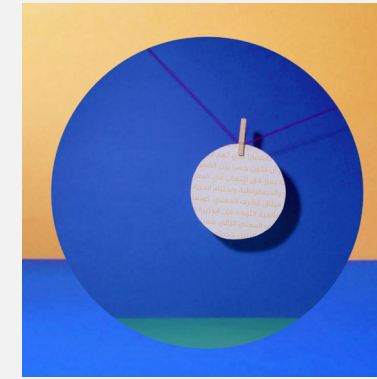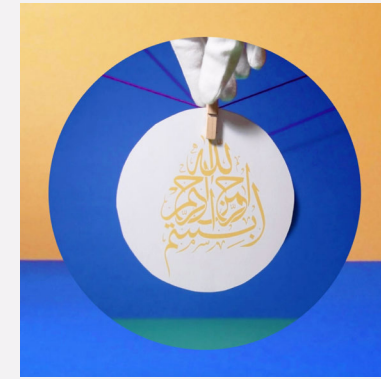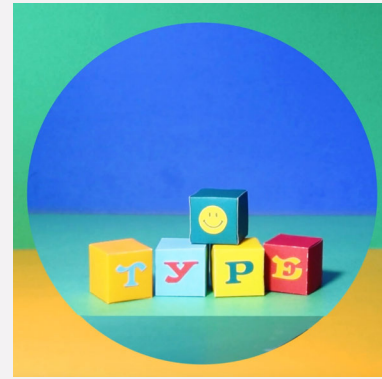

On top of that, the West is notorious for colonizing type like when they changed …………………………………… *Arabic letters to be more like the stand alone letters seen in the Roman alphabet*
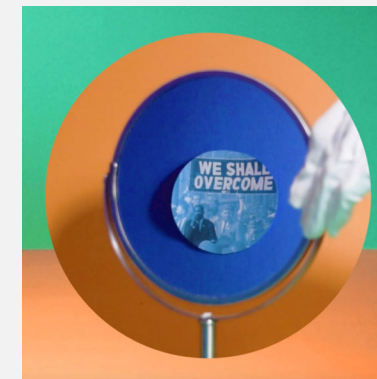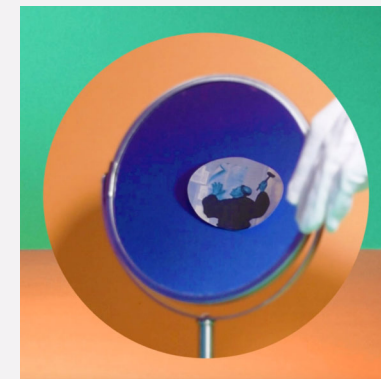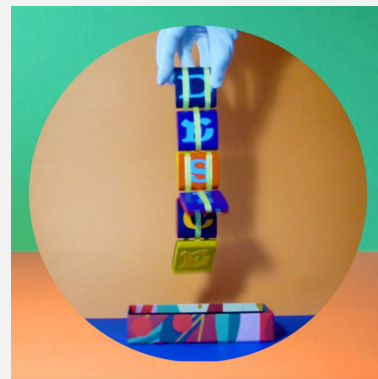
People have been using type to get out their messages since forever & they've …………………………………… *been doing it in creative ways: from one Martin Luther to another. What if*

you could translate and capture voices, mediums, & culture into a typeface …………………………………… *design? How can we reimagine the way we think about type & type design?*
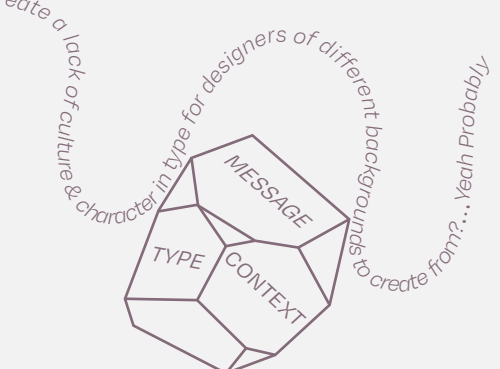
RESEARCH QUESTION

HOW MIGHT TYPE DESIGN AMPLIFY THE VOICES OF THOSE IN THE MARGINS?

The field of type design is a made up of mostly white men with Euro-centric type education. On top of that, there are only a handful of type design educational programs & institutes globally. The lack of access to type education makes it difficult for marginalized designers to become proficient in type design. With the combination of a lack of educational resources for type design & a lack of accessibility within the design community at large, the type design community is very homogeneous & lacks culture, relatability & overall development. How can we democratize the accessibility of type design in a way that allows for the amplification of anyone's voice?

TYPE IS SO SATURATED IN OUR LIVES THAT WE DON'T CONSIDER ITS IMPLICATIONS BEYOND STYLE, LEGIBILITY, AND READABILITY.

CALL TO ACTION EXTENSION

A CALL FOR DESIGNERS TO PURSUE AND SUPPORT COMMUNITY TYPE DESIGN

DEMOCRATIZE TYPE DESIGN EDUCATION

A call for type design education to become accessible to all designers. Type design has numerous marginalized facets to its creation & its accessibility. Instead of type design being in the hands of a few, let's allow anyone interested in type design to learn and develop their type skills so that the type community will become more diverse, more inclusive &, hopefully, more decolonized.

COMMUNITY BASED TYPE DESIGN

A call for type designers to gain support through their communities. Type is used by everyone, but created by so few. Let's support our fellow type designers, both within the geographical community and within the personal communities we identify with. By doing this, we're encouraging designers to create type with culture & character that reflects their life experiences. Where would type be at today if a more diverse body of designers were contributing?

LINK

WWW.AVCOOK.CO/TYPE-CTA

MINISTABS   LINK TO MURAL BOARD

1. Educational Tool
A tool that explains & documents oppressed type, racist type, colonized type, & problematic type/ type designers. 1.5 idea is a plugin that identifies type on a web page & alerts you if it's considered problematic.

2. Directory
A tool that showcases type made by those who are marginalized to be used by the marginalized. The directory would allow users to filter based on the categories/communities they identify with.

3. Type Generator
A tool to that documents protest sign lettering from social media photos. It uses AI to trace & create full typefaces based on the signs to be used for social justice purposes for more personal storytelling.

4. Convert audio to Typographic Posts
A tool that automatically turns audio or closed captioning from videos into short typographic assets for all social media. It works as an easy secondary form of spreading the same message across multiple platforms.

RESEARCH QUESTION

HOW MIGHT A DIGITAL TRANSFORMATION OF A MUSEUM BECOME A DEMOCRATIZED, DECOLONIZED AND MORE INCLUSIVE EXPERIENCE?

How are museums problematic? Museums are cultural powerhouses of Western countries that store priceless artifacts from around the world. Some of these artifacts were stolen & looted from their home culture during the colonial era to live in these museums & most have not been returned. It is not a Western museum's place to display & keep stolen items from other countries. By doing so, museums are upholding colonial power & undermining other cultures. Aside from its international colonization museums are domestically marginalizing communities. The museum is seen as a white space, with black people only making up 6% of museum goers, & only 4% of museum staff.

Aside from the obvious fact that all American land is stolen indigenous land, The American Museum of Natural History & Smithsonian (among others) hold the skeletal remains of Native Americans & Africans within their collections. Not only is it dehumanizing, these institutions rarely acknowledge the role of genocide & slavery within their museums. On top of that, there is a lack of representation of marginalized communities, with museums placing more emphasis on Euro-centric work, & English-only labels & headsets. When museums do showcase marginalized communities in their exhibits, the museums rarely ask for permission from the communities or listen to their stories.

DECONSTRUCT THE MUSEUM AS

+ EURO-CENTRIC

+ A WHITE SPACE

+ A STATUS OF POWER

+ A REMNANT OF COLONIALISM

+ A MARGINALIZING FORCE

WEEK 1

ARTIFACT AS ARTIFACT 7

PHYSICAL MUSEUM TO ONLINE SPACE

What if you took a museum as it is now & transformed it into a digital space? How could the design of this space help to alleviate some of the negative feelings experienced by BIPOC in museum spaces? How could a digital platform enhance the capabilities of a museum?
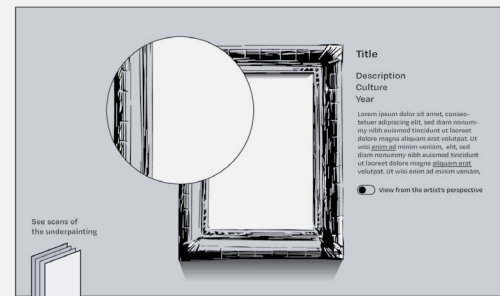

An exploration of digital enhancements not possible in physical reality could perform. Explored common digital features like zoom, toggles, links, & layers
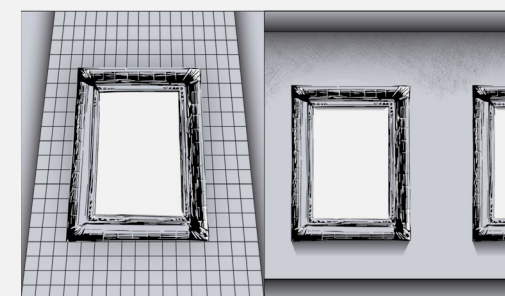
Visualizing how wall height & angles could recreate daunting architecture that both inspires visitors & intimidates
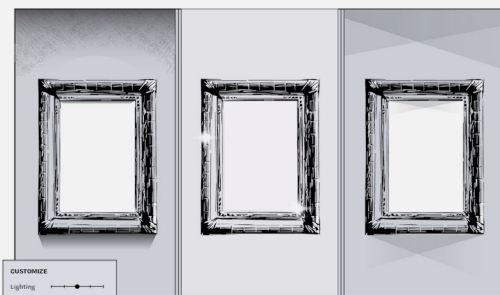
A user interface that's visually customizable for the visitor's comfort level & expectation for what an ideal museum looks like to them
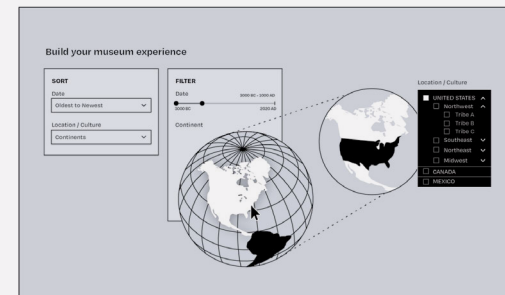
Exploring how a filterable & sortable museum could create a Build Your Own Museum depending on a visitor's preferences
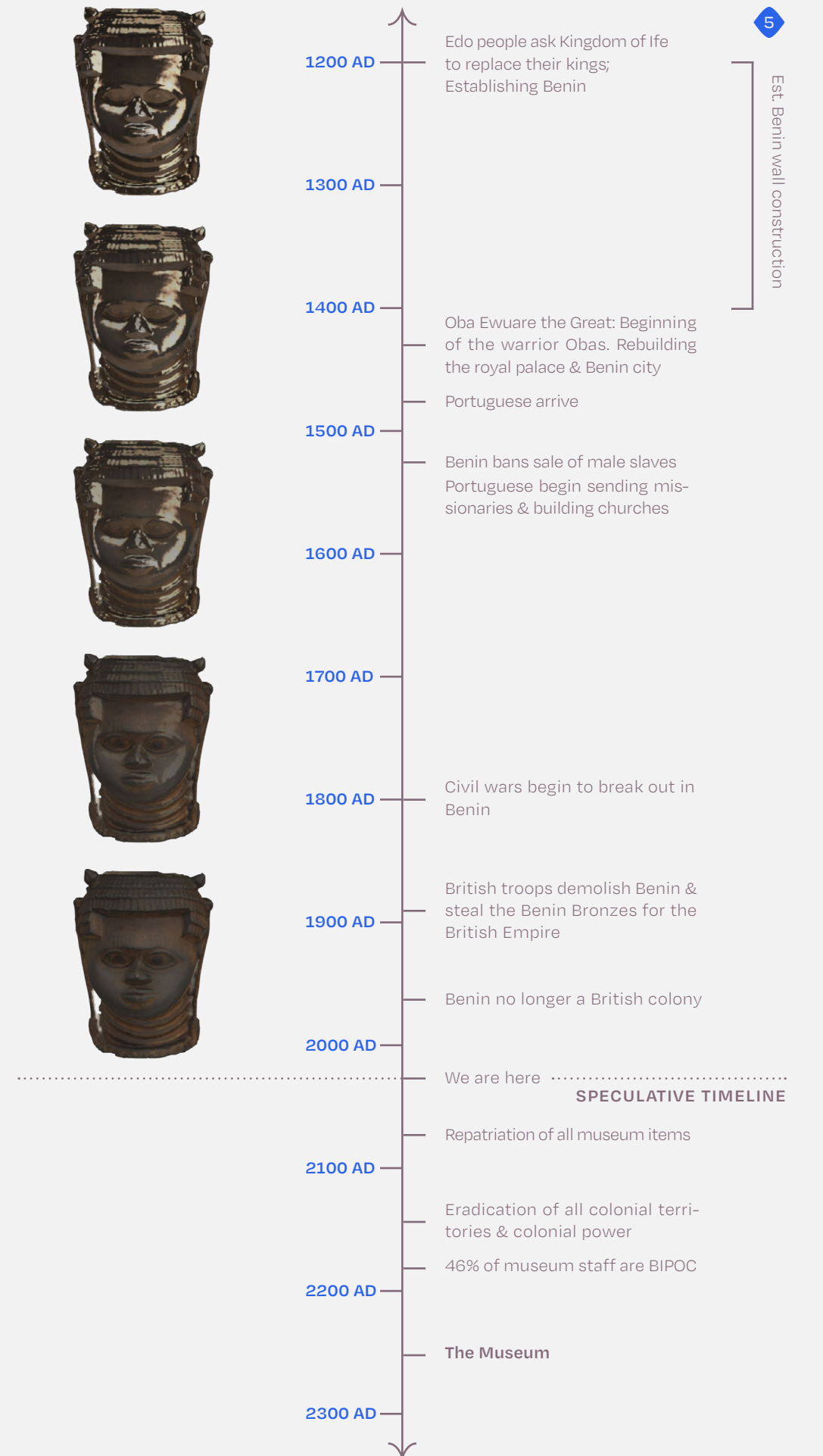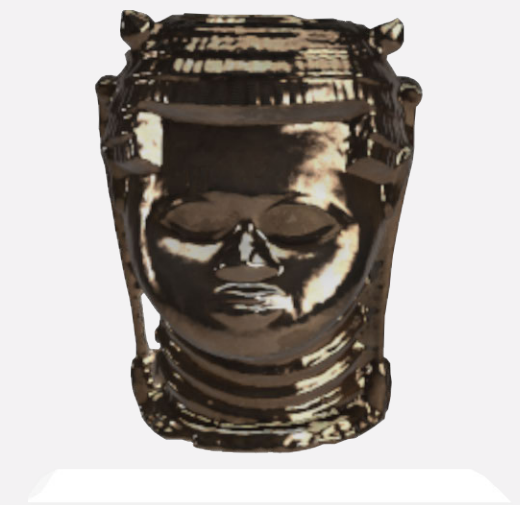
WEEK 2

ARTIFACT AS PERSON

SPECULATIVE DECOLONIZED MUSEUM

What if museums showed the life of the artifact from the artifact's perspective? What if a digital museum of the future recognized the time the stolen artifact was confined to Western museums as part of its oppressive history?

BENIN BRONZES CASE STUDY: HISTORY

To narrow down my train of thought, I chose the Benin Bronzes as a case study in order to dig deeper into the life of an artifact.

A brief history: The Kingdom of Benin, located in modern-day Nigeria, flourished between the 1200s-1800s AD. The Kingdom was ruled by Obas, with the Obas reaching their height of power in the 1500s. Oba Ewuare rebuilt the city & royal palace around this time. By the 1800s, the British were trying to extract Benin's rubber & palm oil. The Oba tried to stop all trading with Britain, but in 1892 the British showed up to a religious festival without an invite. The British burned the city to the ground after being turned away & looted the Benin Bronzes & other treasures from the city & palace. The Benin Bronzes are not just decorative — they tell the entire history of a civilization that doesn't have "written history" in the way Western culture would normally categorize it.

TIMELINE

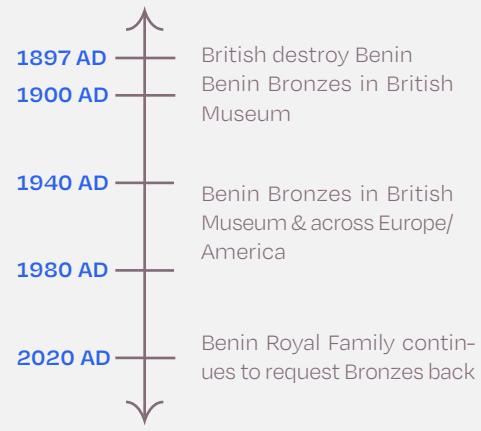|	
1200 AD	Edo people ask Kingdom of Ife to replace their kings; Establishing Benin
1300 AD	Est. Benin wall construction
1400 AD	Oba Ewuare the Great: Beginning of the warrior Obas. Rebuilding the royal palace & Benin city
	Portuguese arrive
1500 AD	Benin bans sale of male slaves Portuguese begin sending missionaries & building churches
1600 AD	
1700 AD	
1800 AD	Civil wars begin to break out in Benin
1900 AD	British troops demolish Benin & steal the Benin Bronzes for the British Empire
	Benin no longer a British colony
2000 AD	We are here
	SPECULATIVE TIMELINE
	Repatriation of all museum items
2100 AD	Eradication of all colonial territories & colonial power
	46% of museum staff are BIPOC
2200 AD	
	The Museum
2300 AD	

Credit: 3D model by MAACambridge

WEEK 3

PERSON AS ARTIFACT

MUSEUM ENABLERS

What if museums showcased the history of the visitors & the exchanges between human hands instead of the history of the artifact? What if the artifact becomes decentered to bring attention to museum enablers: governments, donors, board of directors, senior staff, (white) visitors, (white) artists.

1897 AD — British destroy Benin
1900 AD — Benin Bronzes in British Museum

1940 AD — Benin Bronzes in British Museum & across Europe/America

1980 AD

2020 AD — Benin Royal Family continues to request Bronzes back

VISITOR BECOMES THE MUSEUM WALL

In this scenario, the museum visitor becomes the wall/ artifact & views the other visitors throughout the years. Time lapses by the change of fashion in the visitors. There is a stark contrast between the artifact's original setting & handlers compared to the Western museum's visitors.

## WEEKS 4 & 5

MUSEUM AS ARTIFACT

WHERE DO THESE STUDIES LIVE?

The last 2 weeks of this project focused on creating a digital museum that exhibits the modern museum as an artifact as a call for the repatriation of contested & stolen items. This museum implies that museums as power structures & hoarders of colonial items will become an artifact of the past in the near future.

The concept for the Museum of Stolen Items is that it showcases the top 10 contested artifacts in Western museums. Instead of the artifact being talked about in the past only, the artifact has its entire lifespan shown- from its creation to its use to its placement in a museum to a repatriated future. Users are able to jump between being a museum visitor & being the artifact.
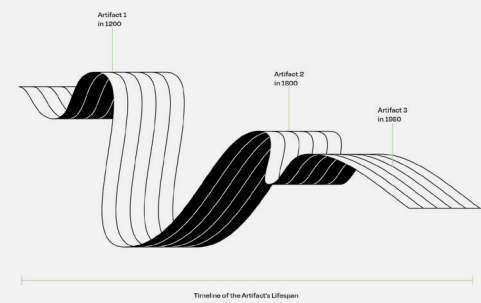
An exploration on the artifact lifespan as a version history of its life. The date the artifact was created is always listed, but the rest of its lifespan, and its future, is rarely talked about.
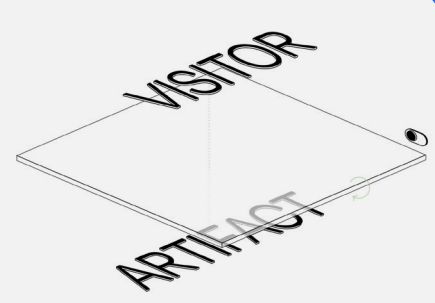
When a user is in the space, how does the toggle between visitor & artifact work? What if the floor rotated or flipped around when switching between artifact & visitor modes?
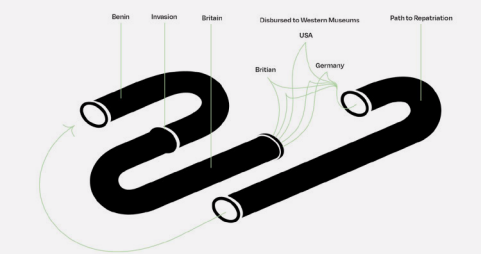
Instead of visualizing the artifacts in a space, what if it were a map/ portal that showed where these artifacts have been scattered throughout history?

A study on how the timeline of an artifact could be represented as a 3D digital space. 3 doors representing the past, present & future.

UI FLOW
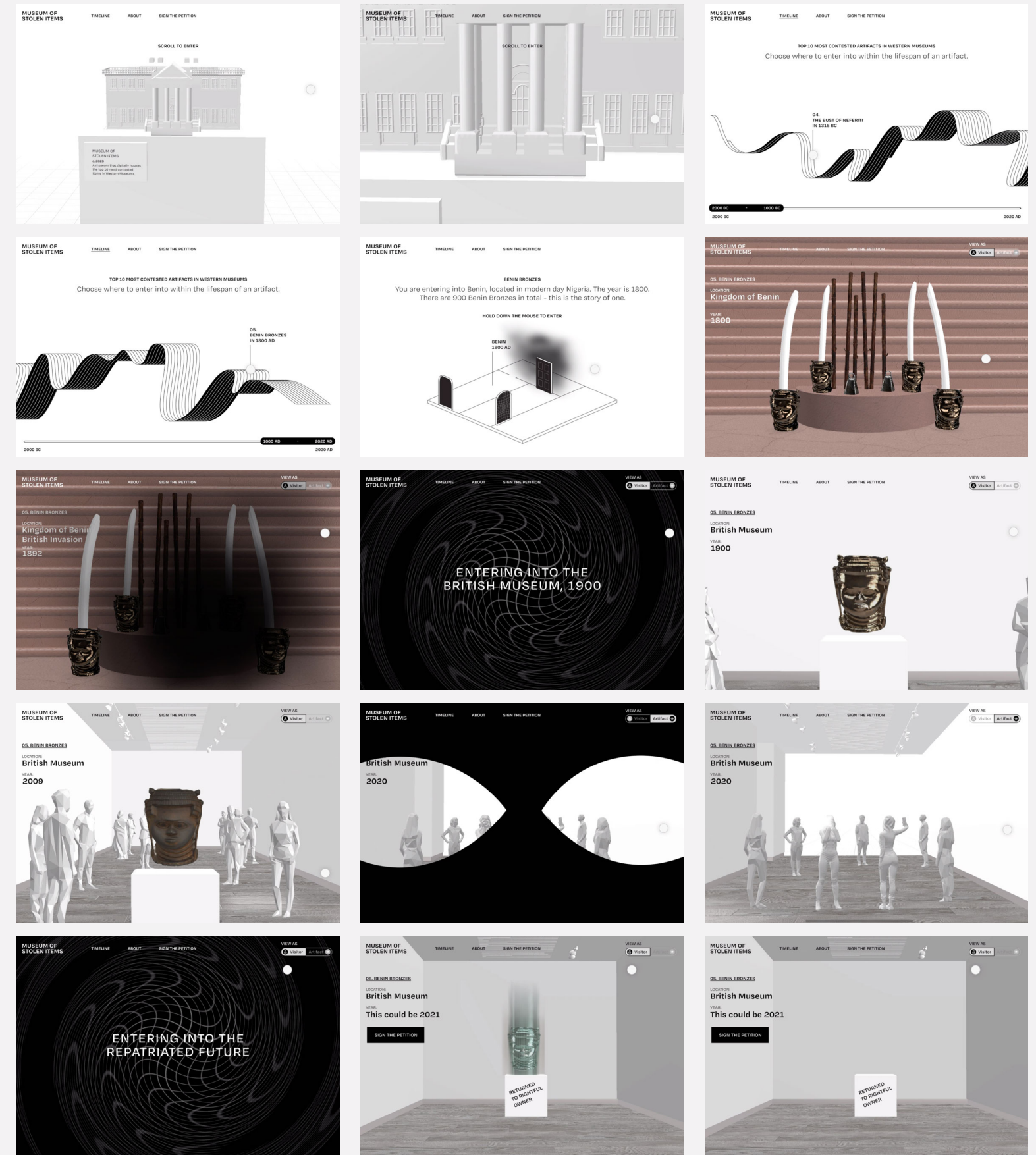
Credit: 3D models by the Museum of Archaeology & Anthropology at the University of Cambridge, The Imagining Center at Smith College, Biwenka, Limerick3D, WesternScienceCenter, Daken.Hoo, amforma, & Loïc Norge

RESERACH

METHODS

DESIGN

IN

GD 572

PROFESSOR ◇ DEBORAH LITTLEJOHN ◇

LITERATURE REVIEW

DARK PATTERNS AND COGNITIVE BIAS IN DIGITAL POLITICAL CAMPAIGNS — LITERATURE REVIEW MAP

Main concepts:

- Digital Political Campaigns
- Dark Patterns
- Cognitive Bias

Literature:

- *The search engine manipulation effect (SEME) and its possible impact on the outcomes of elections.* 2015
- *Political Manipulation and Internet Advertising Infrastructure.* 2019
- *The role of digital marketing in political campaigns.* 2017
- *Confirmation Bias: Roles of Search Engines and Search Contexts.* 2015
- *Deceived by Design.* 2018
- *Should Governments Invest More in Nudging?* 2017
- *Challenging Truth and Trust: A Global Inventory of Organized Social Media Manipulation.* 2018
- *Safeguarding Digital Democracy.* 2020
- *UI Dark Patterns and Where to Find Them* 2020
- *Dark Patterns at Scale.* 2019
- *Tales from the Dark Side: Privacy Dark Strategies and Privacy Dark Patterns.* 2016
- *Cognitive biases, dark patterns, and the 'privacy paradox'.* 2020

Sub concepts / Taxonomy:

- Emotional Based Targeting
- Psychographic Targeting
- Commercial Voter Files
- User Data
- Neuromarketing
- Micro-targeting
- Online Voter Suppression
- Search Engine Manipulation
- Obstruction
- Sneaking
- Nagging
- Interface Interference
- Hides Information
- Forced Action
- Covert
- Deceptive
- Restrictive
- Steering
- Asymmetric
- Obscure
- Nudging
- Taxonomy
- Fake
- Preserve
- Maximize
- Publish
- Violate
- Deny
- Default Effect
- Sunk Cost Effect
- Framing Effect
- Bandwagon Effect
- Anchoring Effect
- Scarcity Effect
- Overchoice
- Hyperbolic Discounting
- Metacognitive Processes

Definitions:

- Dark Pattern: when the UI and interaction seems to benefit the system instead of the user
- Dark patterns: user interface design choices that benefit an online service by coercing, steering, or deceiving users into making decisions that, if fully informed and capable of selecting alternatives, they might not make.
- Dark Pattern: features of interface design crafted to trick users into doing things that they might not want to do, but which benefit the business in question.
- Dark Pattern: manipulative user interfaces used to deceive users
- Dark patterns: Actors intentionally manipulate people to provide their personal data for collection, storage, and processing against their original intent and interest.
- Dark Patterns: interface design choices that benefit an online service by coercing, steering, or deceiving users into making decisions that, if fully informed and capable of selecting alternatives, they might not make.

Legend:

- Main concepts
- Literature
- Taxonomy
- Definitions
- Sub concepts

THE USE OF DARK PATTERNS AND COGNITIVE BIAS IN INFLUENTIAL POLITICAL CAMPAIGNS' DIGITAL PLATFORMS

STUDY PURPOSE

The manipulation of voters from official electoral campaigns, special interest lobbies, foreign state actors, and domestic dark money groups has been researched primarily from the angles of political advertising strategies, the spread of fake news, search engine manipulations, micro-targeting, and neuromarketing. There has been limited research conducted on the use and affect of dark patterns on voters through the user interface (UI) design of web, email, mobile apps and other platforms by influential political platforms. For this study, dark patterns are being defined as maliciously crafted UI interactions that adversely influence users and their decision making abilities, and influential political platforms will be an umbrella term to refer to official electoral campaigns, PACs, Super PACs, Hill Committees, and other official party organizations.

Dark patterns use misleading content and visual design to create experiences that are beneficial to the website owner and harmful to the user. When dark patterns are combined with cognitive biases, users can be subjected to manipulative tactics that they may not be aware of. Political campaigns, along with third party agencies, use data-driven marketing to target voters. The combination of user data from online platforms and voter files enable the creation of micro-targeted messages to specific audiences. This research proposal aims to find these dark patterns across influential political platforms, create a taxonomy of the different types, and conduct user testing on the findings across particularly vulnerable voter populations to understand the impact and user awareness of these patterns.

RELEVANT LITERATURE

Previous studies found 11% of 11,000 retail sites feature at least one dark pattern and, on average, 7.4 dark patterns per randomly selected app (Mathur et al. 2019; De Geronimo et al. 2020). More users will inherently interact with dark patterns as these patterns become increasingly common across all categories of digital platforms,

however, previous work suggests users are generally not aware of and cannot detect dark patterns presented before them (De Geronimo et al., 2020). This lack of education on dark patterns puts users at a higher risk of manipulation. For example, in 2014 the National Republican Congressional Committee (NRCC) created websites that were deceptively designed to look as if they were in favor of democratic candidates, when, in fact, the donations from the site were funding the NRCC (Goldmacher, 2014).

Privacy dark patterns and strategies "intentionally manipulate people to provide their personal data for collection, storage, and processing against their original intent and interest (Bösch et al. 2016, p. 252)." Some platforms hide or prohibit access to sections, unless the user inputs data, a common strategy to coerce someone to give away information. For example, if a user wanted access to a political app, the interface may require he or she provide personal information such as an email, name, phone number and access to his or her contact list to create an account and log in. Once a platform has access to this data, it can use this information to recognize the user across different platforms through cross-device targeting.

Many dark patterns take advantage of a user's cognitive biases, including privacy dark patterns (Waldman, 2020). For example, the Biden for President website positively frames its privacy policy by using the heading "Your Privacy Rights," while listing all of the ways that their platform gathers, uses, and shares data with third-party groups. This example shows the illusion of a user's right to control his or her data but, in fact, the user does not have control over the data being collected or shared (Biden for President, 2020). When users believe they have control over their data, they are more likely to give that data away. Another route for creating highly targeted marketing is through the use of psychographic targeting and neuromarketing. Psychographic targeting and neuromarketing, combined with detailed user data and voter files, creates a direct line to manipulating a user's cognitive biases (Crain and Nadler, 2019). An infamous example of this practice in

politics is the "five factor personality model" used by Cambridge Analytica for Donald Trump's 2016 campaign to target audience segments labeled as "persuadable" (Chester and Montgomery, 2017).

STUDY PROPOSAL

Research Question

How are dark patterns & user interface elements that exploit cognitive biases used on websites, mobile apps & emails created by influential political platforms, & how do voters respond to these patterns when navigating the platforms?

Participants

Participant demographics will be roughly proportionate to the website, mobile app and email user demographics, in order to see which of these audiences is the most vulnerable to dark patterns. Only eligible voters will be considered. For each category of demographics—age, race, and gender—there will be at least 5 users for user testing as advised by Jakob Nielsen, a user research and web usability consultant (Nielsen Norman Group). User demographics can overlap across these categories to avoid an infeasible amount of required participants.

Methods & Plan

Websites, mobile apps and emails created by influential political platforms for major election campaigns must be found that contain dark patterns and deceptive elements. Once this information is gathered, the findings will be categorized by the dark patterns being used. This step will take a few weeks of thorough searching and is an important first step that will inform the following steps. Next, surveys will be sent out to eligible voters of the candidates that have deceptive platforms. Voter's contact information for the surveys will be taken from publicly available voter files. The survey data, potentially in conjunction with web analytics, will inform which demographics are the most likely to use the platforms from the first step. Unmoderated, remotely recorded user testing will be conducted, with the demographic data from the surveys informing the types of users to be recruited. After the user testing,

user interviews will be conducted to gauge the users' awareness and responses to the dark patterns that were presented to them. This study will be very timely and might require expedited research to capture the findings during the active campaigning stage, as campaign websites often change after the elections.

Data

Publicly available voter files will be requested from the politicians' states where dark patterns are found. This data will only be used as contact information to gather survey participants. The data gathered from the survey will be used to show the demographic percentages, such as age, race and gender, of eligible voters that are most likely to use the selected user interfaces. The survey data will be anonymous and will not ask for personal identifiers beyond general demographic information. Participants will be screened with a questionnaire before user testing. This information, along with the rest of the data gathered through user testing and user interviews, will be de-identified to the public. All data will be stored electronically behind password protected folders, unless the requested voter files are delivered in paper form, in which case, the files will be stored in a locked cabinet and shredded after the minimum amount of time from project completion. All data will be de-identified if presented to the public.

Resources

Most state voter files are available to the public for free, but some require payment. The survey data would be more complete in conjunction with web analytics on specific demographic data points like age, gender, and IP addresses to estimate geographic location. Free, public web analytics usually only cover overall visitor count and not specific target groups. Access to a remote user testing platform, which usually requires a payment, along with very specific and time-sensitive user testing and user interview participants will be needed.
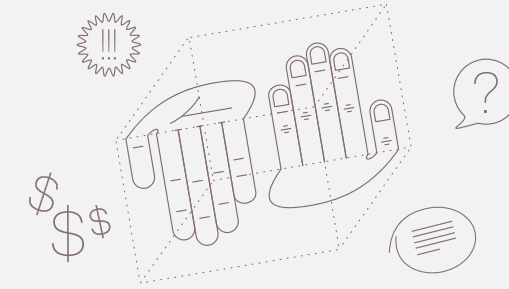
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OBSERVATIONAL STUDY

COVID-19 SOCIAL DISTANCING SIGNAGE AND MASK ADHERENCE AT TARGET ENTRYWAY

STATEMENT OF PURPOSE

The purpose of this study was to observe how people move through a space with COVID-19 signage and barriers, such as social distancing signage, one way aisle indicators and retractable belt barriers. The observations provided insight on whether people follow the signage and, if not, what paths they took instead.

LOCATION

This study took place at the Target located on Grove Barton Road in Raleigh, NC. The entryway was chosen as the targeted area for an observational study because of its clearly defined path signage at the entrance and cash register lines. This area has the most foot traffic in the store along with signage directing customers to follow a specific path. For example, the pathways for the self checkout registers were separated from the other registers by belt barriers and each register line had social distancing floor stickers 6ft apart from each other.

SUMMARY OF OBSERVATION

A floor plan containing a simplification of the paths from all 3 observation sheets was compiled (Figure 3). It includes notations of the customers that did not wear or incorrectly wore masks and shows which general path they took. From this simplified floor plan, data could be more easily compiled to inform insights and takeaways compared to the chaotic observation sheets. During the observations, people who were already within the boundaries of the floor plan were documented first. Any dot that does not originate from a border of the box represents a person that was already in the store when the observation began. Out of everyone in the study, 38% came from the entrance, 42% exited out of the store, and 19% were already in the store and stayed there (Figure 1).

Out of everyone observed in the study, 2% of people did not wear a mask for a period of time and 2% of people wore their mask incorrectly

(Figure 2). Of the 2% of those who wore their mask incorrectly, 100% wore their masks below their nose, but covering their mouths. Furthermore, 1 in 4 people who did not wear or incorrectly wore masks was a child, and 3 in 4 were adults (Figure 3). Similarly, 1 in 4 of those who did not wear or incorrectly wore masks did not adhere to the COVID-19 signage, while 3 in 4 did comply with the signage (Figure 4). The person who did not comply with the signage and was not wearing a mask was an adult that went the wrong way down the oneway entrance aisle and out the exit (Figure 3).

Other notable outliers include 1 person who cut through the accessories section and self checkout lines to get into the regular cash register line and 2 people who went around the belt barrier separating the cash register lines from the entrance aisle to grab a cart (Figure 3). Even though people went around the belt barriers, no one went under the barriers. All of the employees wore masks the entire duration of each study, so the only people observed not wearing or incorrectly wearing a mask were customers. Although most people in the register lines obeyed the social distancing floor stickers placed 6ft apart, many of the people cutting through the merchandise aisle walked within 6ft of those waiting in the self checkout line. The sanitation station at the entrance beside the carts was barely visited, but this could be because the carts were being wiped down by employees in real time.

There were over 3x more people who went straight down the one way aisle compared to those who turned into the merchandise section (Figure 3). Customers were less likely to get a cart if they cut through the merchandise section compared to customers who went straight down the one way aisle (Figure 7, 8). This phenomena could be because customers know it's more difficult to maneuver a cart down a section crowded with merchandise compared to an open aisle.
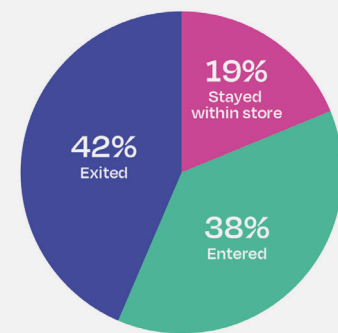

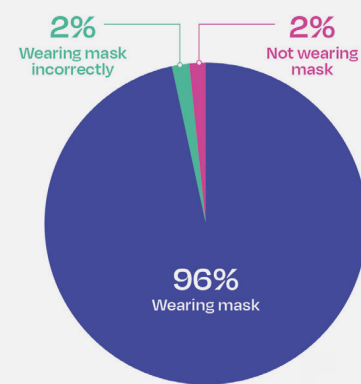**Fig. 1** Movement categories of Target customers and employees
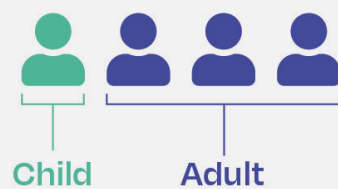

Fig. 2 Mask use of Target customers & employees

Child   Adult

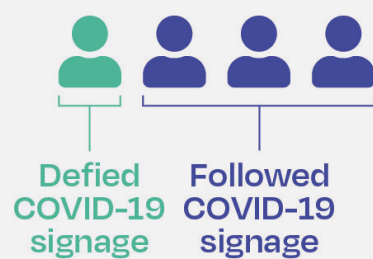**Fig. 3** Child versus adult breakdown of those not wearing or incorrectly wearing a mask

Defied COVID-19 signage   Followed COVID-19 signage

Fig. 4 Signage adherence breakdown of those not wearing or incorrectly wearing a mask

KEY

← Entrance 🖥 Cash register 🛒 Carts 👕 Clothing ● One way aisle
→ Exit 🗑 Trash 🧴 Sanitizer ◻ Accessories ● 6ft Social distance
⊖ Incorrectly wearing mask ⊗ Not wearing mask # Number of people on a path
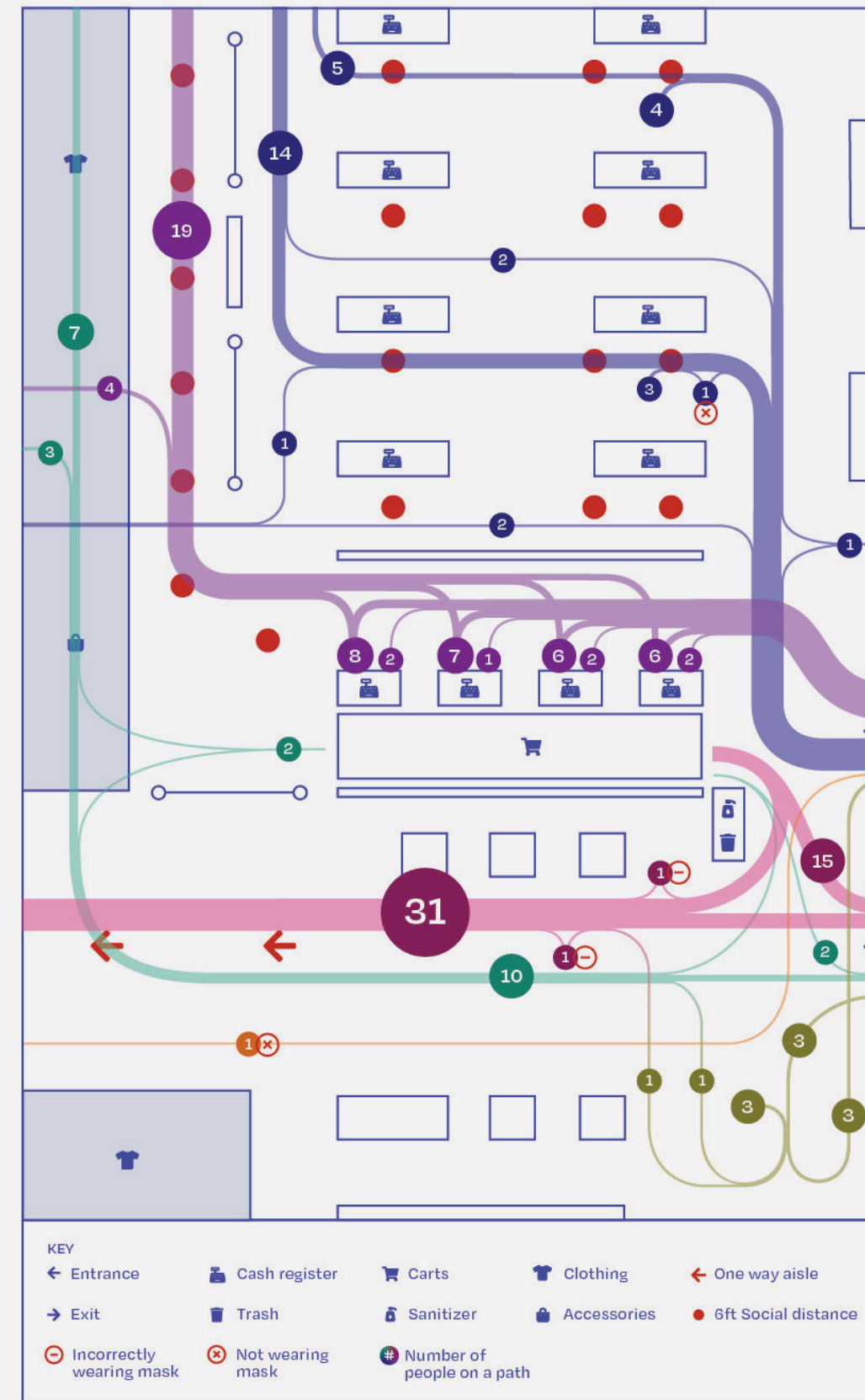
Fig. 5 Compilation of Pathing from Observation Study 1, 2 & 3
*Excludes employees

52% No cart or basket   48% Grab cart or basket
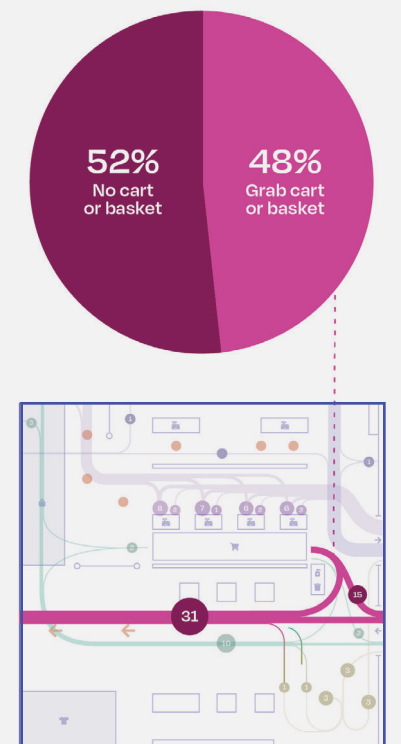
Fig. 6 Cart and basket use of Target customers walking straight down the entrance aisle

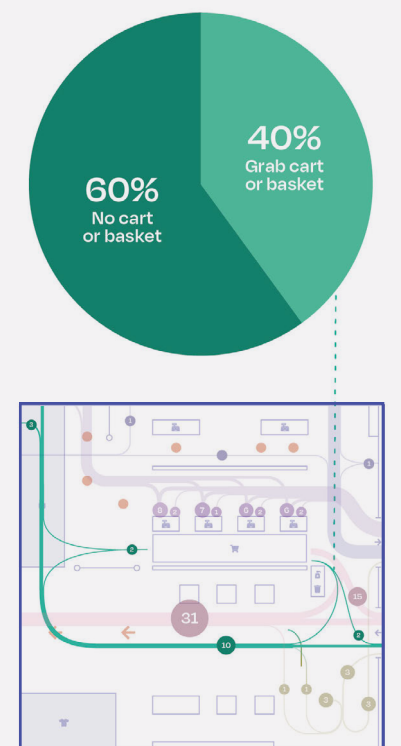60% No cart or basket   40% Grab cart or basket

Fig. 7 Cart and basket use of Target customers cutting through a merchandise section

THE END

SO LONG, FAREWELL