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Berkeley, CA, United States of America

# CV / H PARK

Summary

Experienced industrial designer and design strategist in mass production with comprehensive knowledge of technologies and with extensive insights into consumer markets mainly in hi-tech consumer electronics. Deeply believe in design as a platform to humanize technology and in the holistic process through collaborative efforts across all fields.

Education

- University of California, Berkeley 2022-2023  
Master in Design (MDes) CA, USA
- University of California, Berkeley 2022-2023  
Berkeley Center for New Media Certificate (BCNM) CA, USA
- Rhode Island School of Design (RISD) 2005-2009  
Master in Design (MDes) RI, USA
- Brown University 2007-2009  
Cross Resister Program (Intermediate Chinese Mandarin) RI, USA

Experience

- Samsung Electronics 2010-Present  
Senior Designer, Mobile Communication Business Design Team Seoul, KOREA
- Aquaglobe 2009  
Student Designer, MIT SLOAN x RISD, RI, USA
- P'kolino 2008  
Student Designer, Babson F.W. Olin x RISD MA, USA
- Solar Decathlon 2008  
Business Plan Writing Co-Author, RISD Architecture RI, USA
- NASA 2007  
Student Designer, NASA x RISD RI, USA
- Samsung Design Membership (SDM), 2006  
Intern Designer Seoul, KOREA

Awards

- Galaxy S22, 22 Ultra / Smartphone 2022-2023  
/IF design Award | Discipline: Product  
/Smartphone Manufacturer of the Year | 2022 Mobile Industry Awards  
/Annual Samsung Performance Award
- MDes Distinguished Scholar Awards 2022
- Galaxy Note20, 20 Ultra / Smartphone 2021  
/IF design Award | Discipline: Product  
/CES Innovation Award | Best of Innovation in Mobile Device  
/CES Innovation Award | Honoree in Gaming  
/Annual Samsung Performance Award
- Galaxy Book S / Laptop Computer 2021  
/IF design Award | Discipline: Product
- 360 Omni-Directional Movable Audio 2015  
/IDEA Design Award | Entertainment Bronze
- KN55S9C / OLED TV 2013-2014  
/IF design Award | Discipline: Product  
/Good Design Award | Communication Devices Gold  
/Annual Samsung Performance Award | Silver
- Chris Bangle x Samsung 2013  
Annual Samsung Performance Award | Honorable Mention
- SDM Island/ Virtual World 2008  
/IF design Award | Discipline: Communication

Media

- Galaxy S22 Unpack Tech Talk 2022
- Form Follows Function: The Value of Galaxy Book Series' Design 2020
- Inside the Design: Curved OLED TV 2013
- 30 Month of Thought Put into the Curved Display Design 2013
- OLED Smart Television [UN55S9C] Gooddesign Presentation 2013

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00	<b>Synth, Platform Design</b> Academic, 2023	00	<b>Curved OLED TV, Television</b> Office Projects, 2013	00	<b>RISD-Brown Solar Pavilion, Business Plan Writing</b> Academic, 2007
00	<b>D@L</b> Personal, 2023	00	<b>Galaxy Book S, Laptop Computer</b> Office Projects, 2020		

# Pharm Fish

SPECULATIVE DESIGN  
SOFT ROBOTICS

## Project Toolkit

Product Design | Graphic Design | 3D CAD | CHI 24  
Storytelling | Arduino | Circuit Building | Soft Robotic

2023, Academic, Speculative Experiments

Haesung Park, Anqi Song, Amanda McGraw

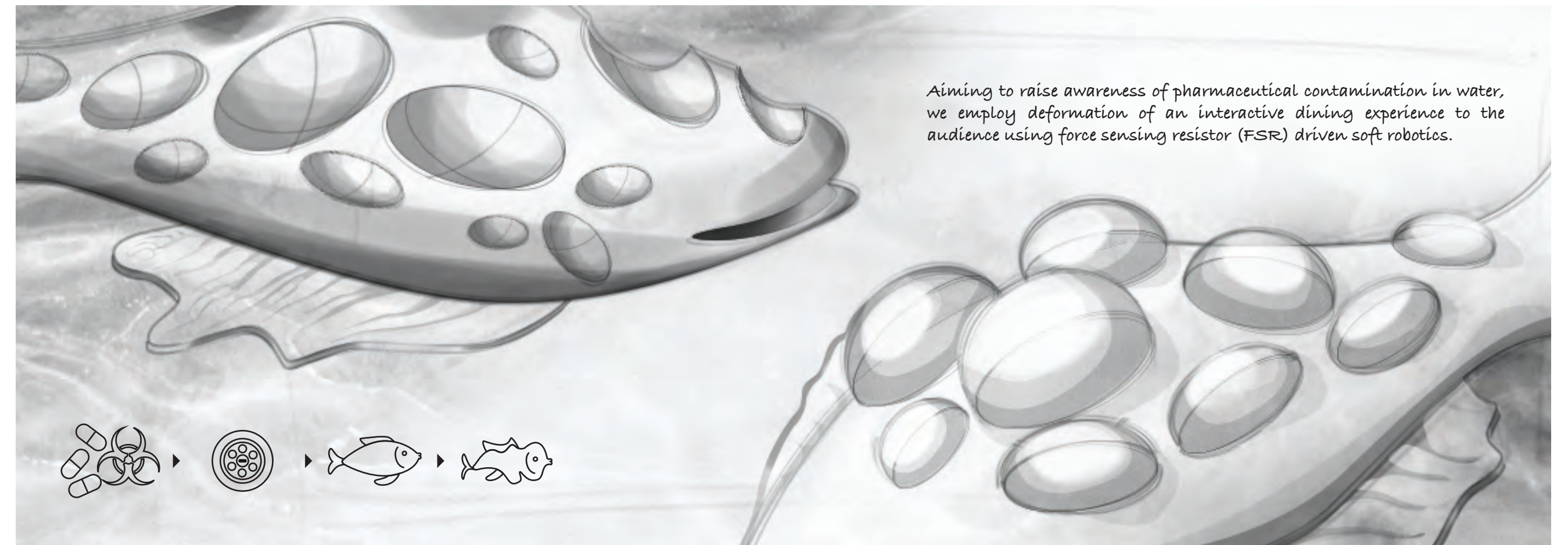
Collaboration Work

## Objective

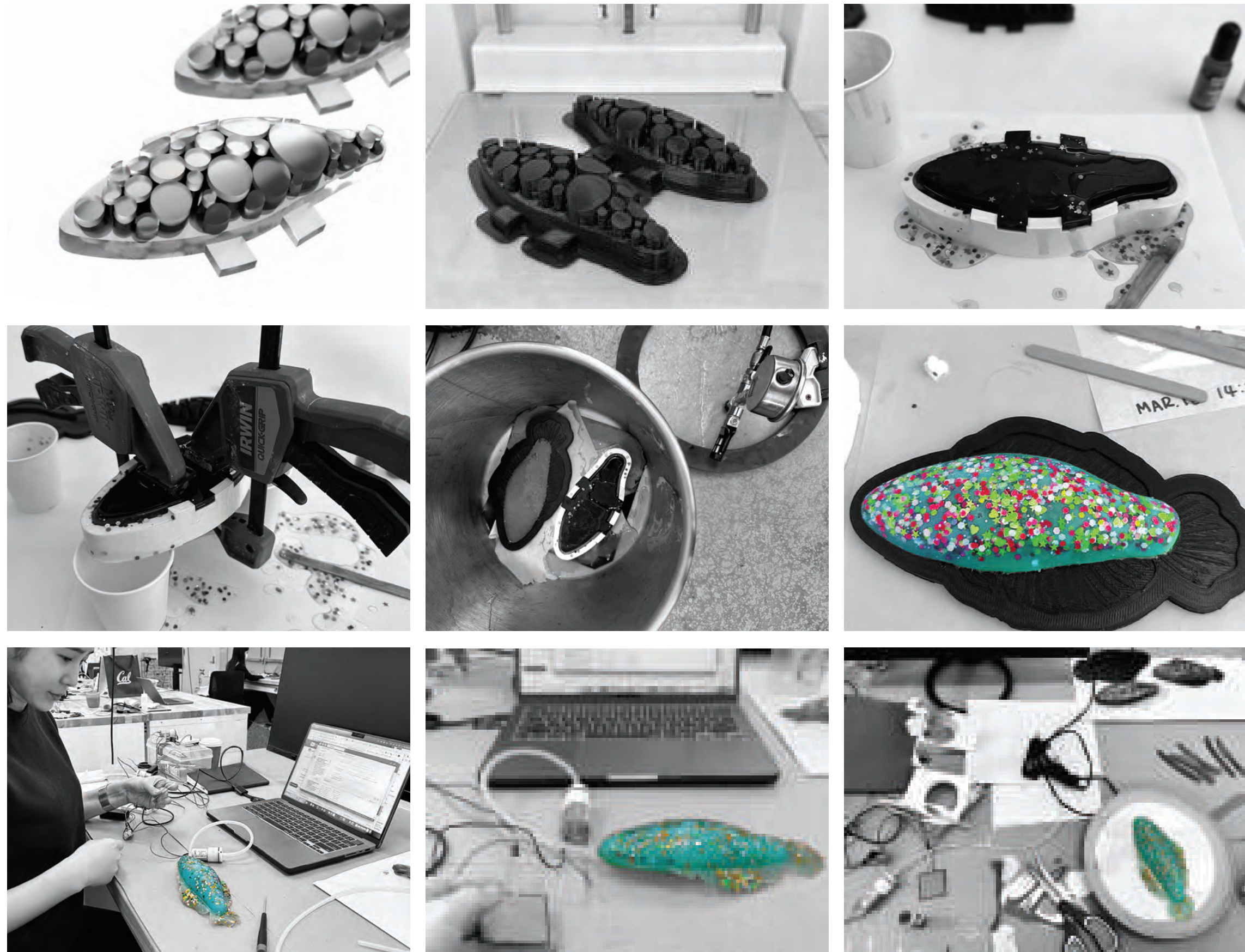


In recent years, scientists have drawn their attention to the problems that pharmaceutical products are causing in oceans and waterways. A recent global review report revealed that 16,000 tons of pharmaceuticals are disposed of annually from human medical care, with 60-80% of these drugs being flushed or entering household waste streams. In one sample, 713 pharmaceuticals were tested in the environment, with 631 found to be over safe detection limits. These findings showcase rising environmental and economic impacts, as well as difficult-to-quantify effects on aquatic life that underscore the gravity of this issue. Beyond quantified factors, pressing the need for action.

## concept sketch.



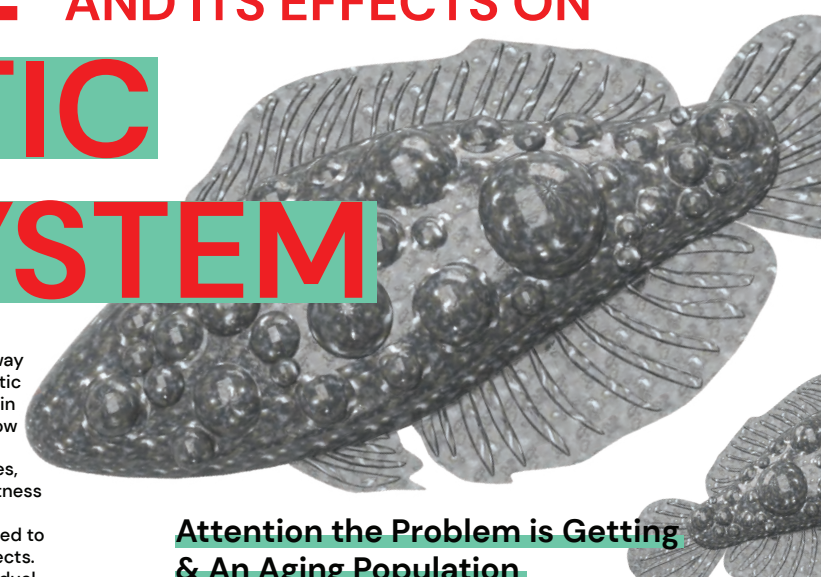
Improper disposal of personal, institutional, and industrial pharmaceutical waste is a critical environmental issue that poses severe consequences for the ecosystem. Unfortunately, it isn't getting enough attention and urgent action is necessary to raise awareness of the cultural change. Moreover, public and cultural attention could influence policymaking in the public domain, to bring out a contribution of positive outcome. We aim to address the issue by visualizing the deformation of aquatic creatures caused by pharmaceutical waste.



## Process

First, I designed a 3D CAD model of a silicone mold for a soft robotic fish using Fusion 360, iterating through several 3D print tests of the mold to refine the design and validate mold release quality and production limitations. Next, the validated 3D printed mold was used to cast liquid silicone, which was then degassed in a vacuum chamber to remove trapped air bubbles. Glitter particles were mixed into the silicone to metaphorically represent pharmaceutical contaminants polluting the water. A breathing quality was implemented in the soft robotic fish by incorporating air pumps to actuate inflation and deflation, controlled by an Arduino microcontroller. Code was written to coordinate the pumps and bring the soft robot to life, with ongoing testing to ensure smooth "living" movement. The end result is an interactive silicone fish that appears to struggle breathing as its body deforms under the deleterious effects of the accumulating glitter particles, aimed to underscore the impacts of pharmaceutical waste in a compelling hands-on display.

# PHARMACEUTICAL WASTE AND ITS EFFECTS ON AQUATIC ECOSYSTEM



This research focuses on interaction beyond the individual. More than the impact on humans, the way we dispose of pharmaceutical products into aquatic systems is creating a problem of behavior effects in aquatic species. The visualization is to simulate how fish are becoming distorted as they inherit over-the-counter, cruise ships, manufacturing sites, and several other sources. In 2023, through robustness [1] and emerging technologies [2], policy-makers, healthcare professionals, and the governments need to work together to solve this issue with unlawful effects. The domain includes awareness beyond the individual, integrating systems, and environmental ecosystems.

## Attention the Problem is Getting & An Aging Population

16,000 tons 631/713 above limit

A recent global review report shows 16,000 tons of pharmaceuticals annually disposed of from human medical care, with 60-80% of these drugs flushed down the toilet or placed in normal household waste. The sample had 713 pharmaceuticals tested in the environment, 631 of which were above their detection limit, and these results showed a rise in environmental costs and economic impact.

## A Cultural Perspective

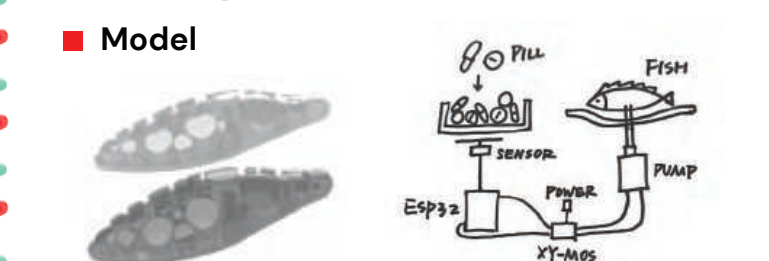
An aging demographic, the rise of chronic health conditions, the availability of inexpensive generic treatments, and the advent of "lifestyle" drugs have been the key drivers of increased pharmaceutical medicine use within the European Region. People's perception and values interrelate with consumption and disposal practices which bound. When considering this problem, it is critical to consider how policy-makers understand the array of factors that are causing pharmaceutical use and misuse. Countering the problems associated requires more than just reactive technological responses, but also cultural insight to shed light on the rise of medication intake, medical prescription, and consumption with a process to dispose correctly.

# Current State

8 According to director and researcher Aaron Adam, pharmaceutical products in one fish contained eight different contaminants of antidepressants alone. The pharmaceuticals detected in the fish included eight different antidepressants, at concentrations equal to as much as 300 times the amount prescribed for humans.

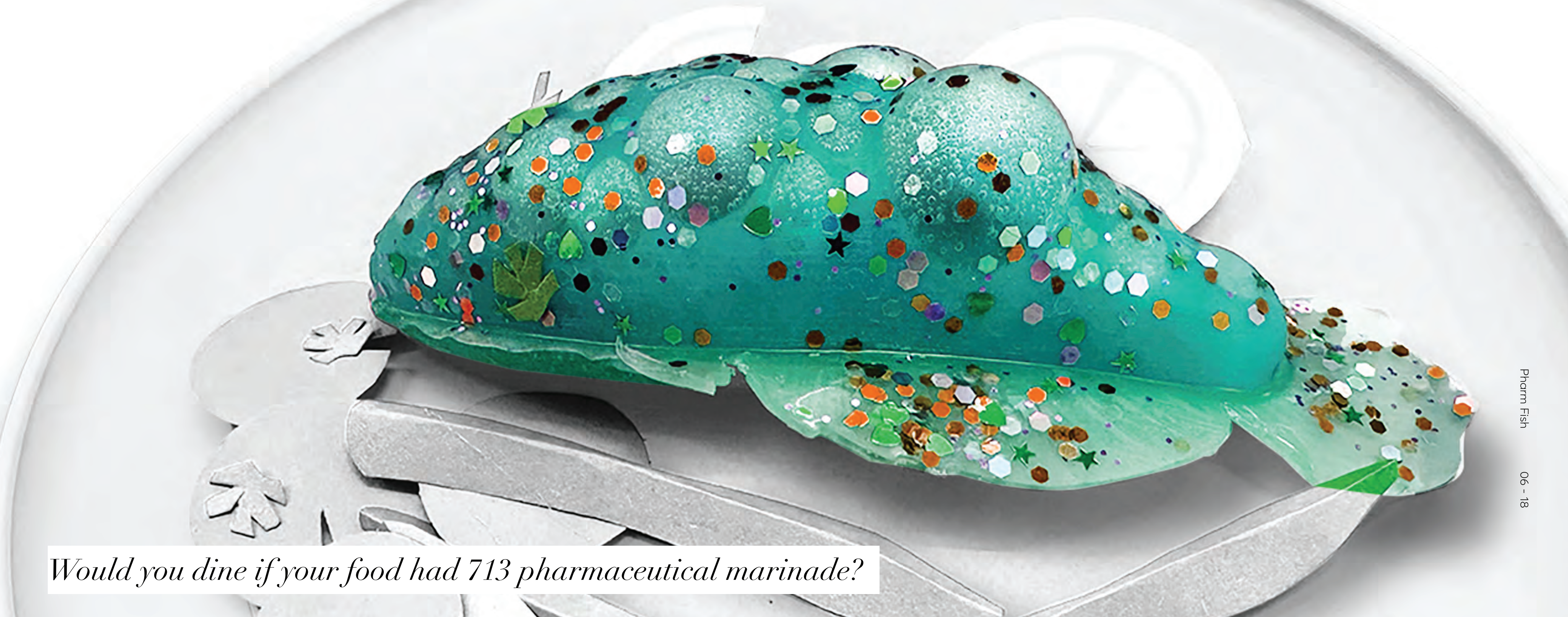
**Drugstore Fish**  
 According to a study by University of East Anglia, researchers found that pharmaceuticals are stored in a single household in up to 10,000 containers, with 100,000 containers of drugs.  
 Atorvastatin (cholesterol medication)  
 Levodopa (Parkinson's medication)  
 Clozapine (antipsychotic used)

## Design



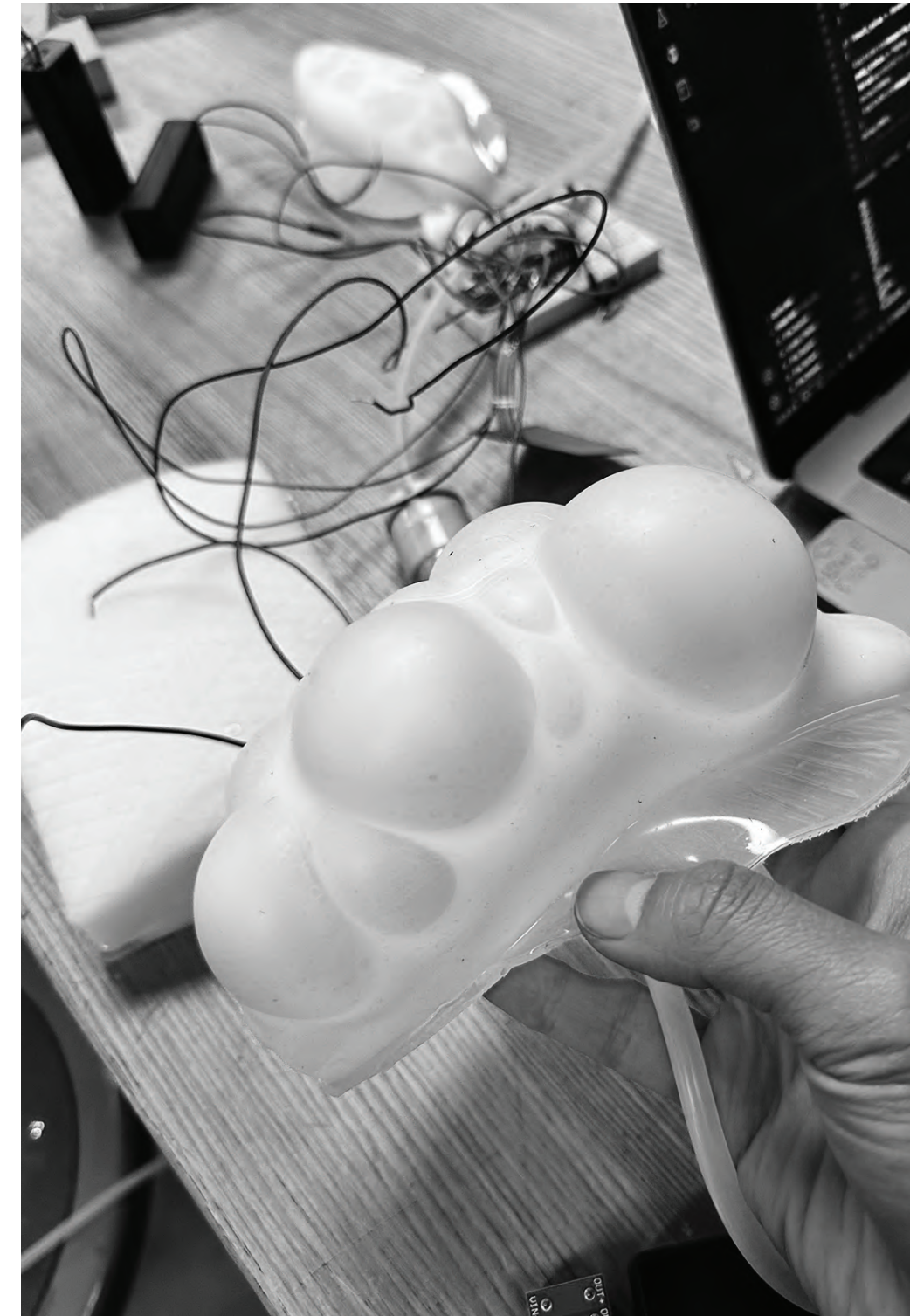
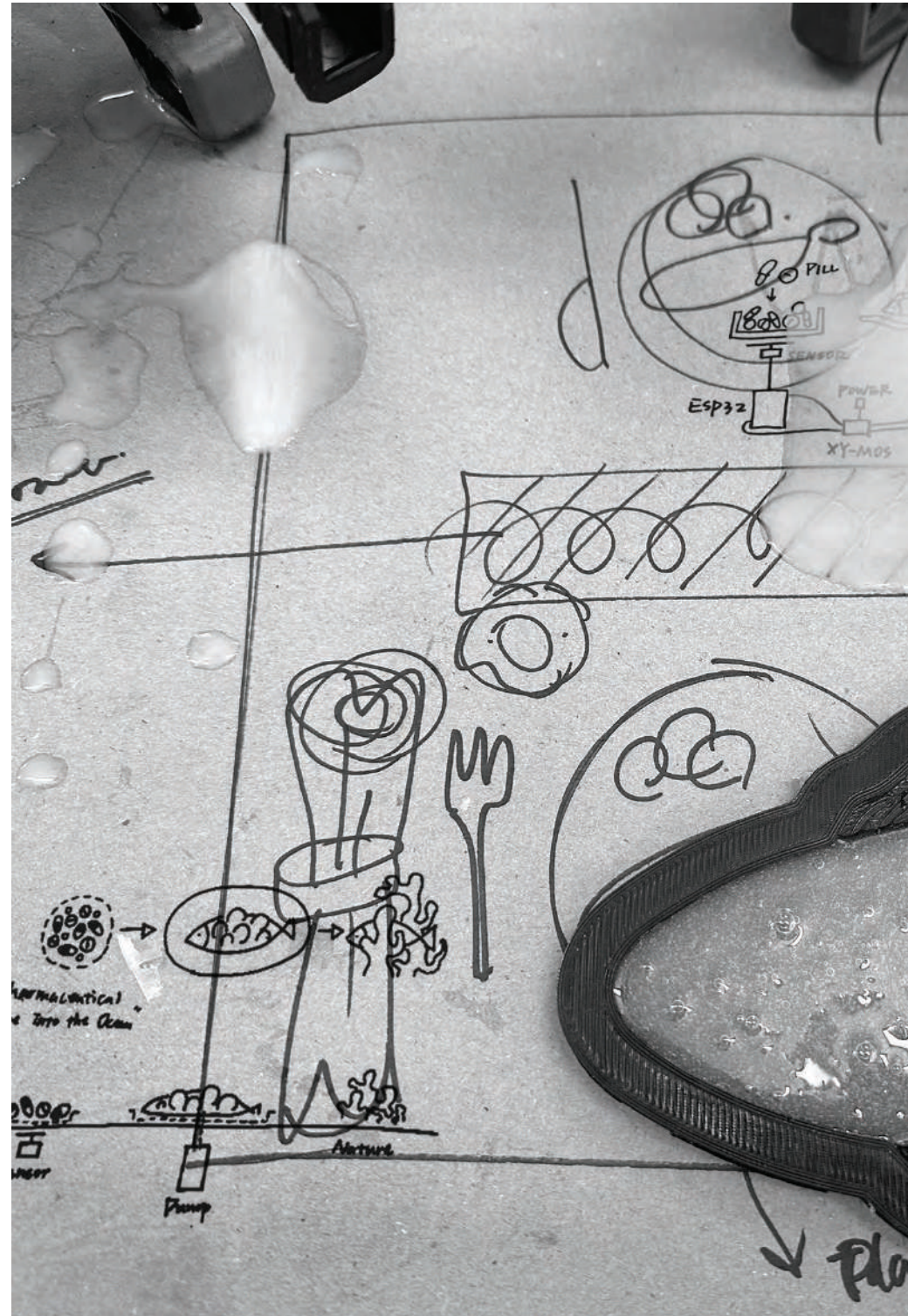
## Design Poster

Pharmaceutical waste accumulates to hazardous levels in water, visualized by a distorted fish. Collaborative action on proper disposal and oversight is urgently needed across healthcare policies, systems and governments to address this growing environmental issue.



*Would you dine if your food had 713 pharmaceutical marinade?*

This interactive sculpture simulates a disturbing reality - that our waters have become unintentionally "marinated" with a chemical cocktail of pharmaceutical waste. The deforming fish puts on display the accumulating health crisis we are subjecting aquatic ecosystems to in order to compellingly confront viewers with whether we would accept our own food contaminated to this degree.



## Iteration

After developing an initial soft robotic fish prototype actuated by force sensing resistors, the interactivity mechanism was revised to better fit the conceptual dining context. Specifically, the system was redesigned to instead trigger deformation by detecting when silverware is lifted from the tablespace installation, signifying viewers are ready to metaphorically "eat" and consume the pharmaceutical contaminants on display. Lifting the fork or spoon to dine now initiates the distorted breathing motions, connecting this action more seamlessly to witnessing the consequences of ingesting water tainted by medication waste. This redesigned input method through integrating silverware pick up more cleanly ties the key narrative elements together between the viewer "diner", pharmaceutical "ingredients", and impact on aquatic life into one cohesive interactive artwork.

# Monochromatic World

SPECULATIVE DESIGN  
VIDEO PRESENTATION

## Project Toolkit

Speculative Design | Graphic Design | Storytelling  
Storytelling | After Effect | Premiere Pro | VR

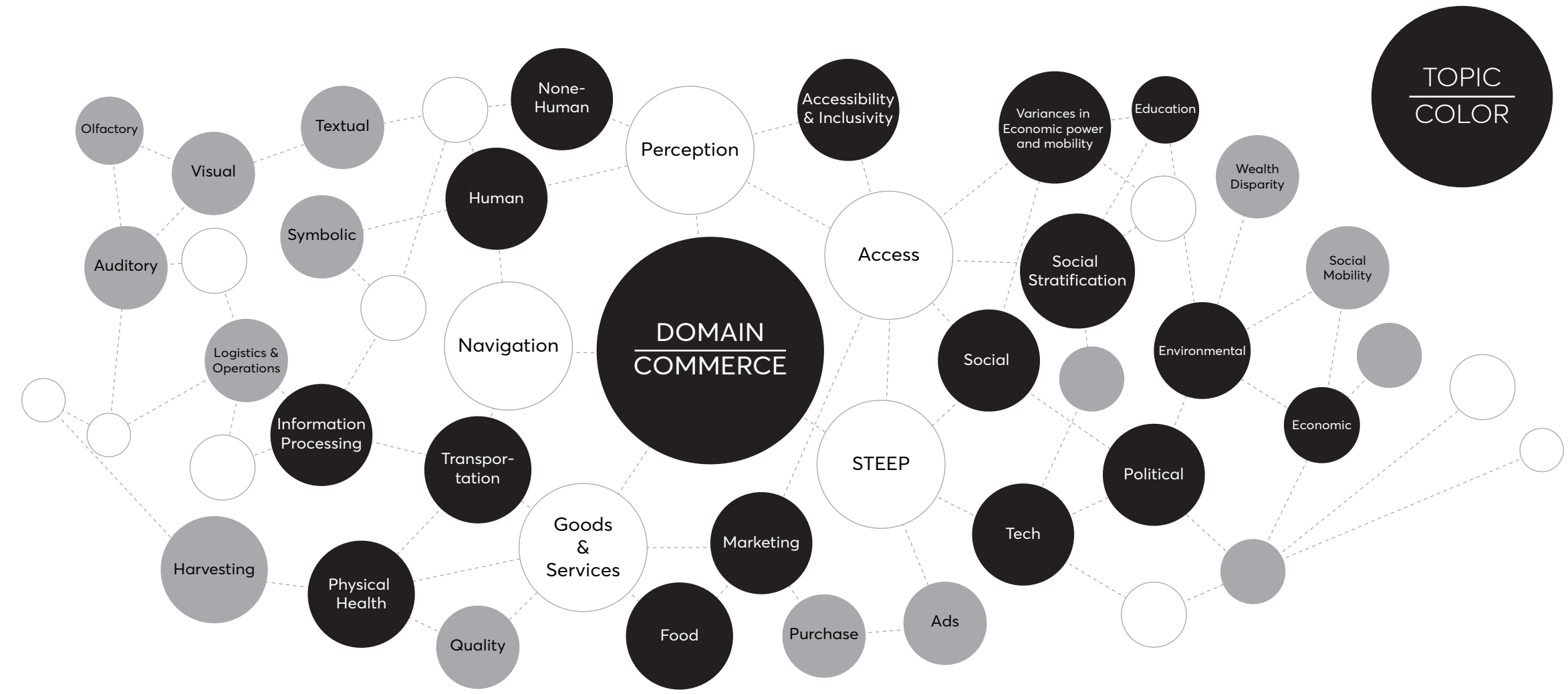
2023, Academic, Speculative Experiments

Haesung Park, Heteng Li, Jin Yutao, Phyllis Fei, Tong Nian

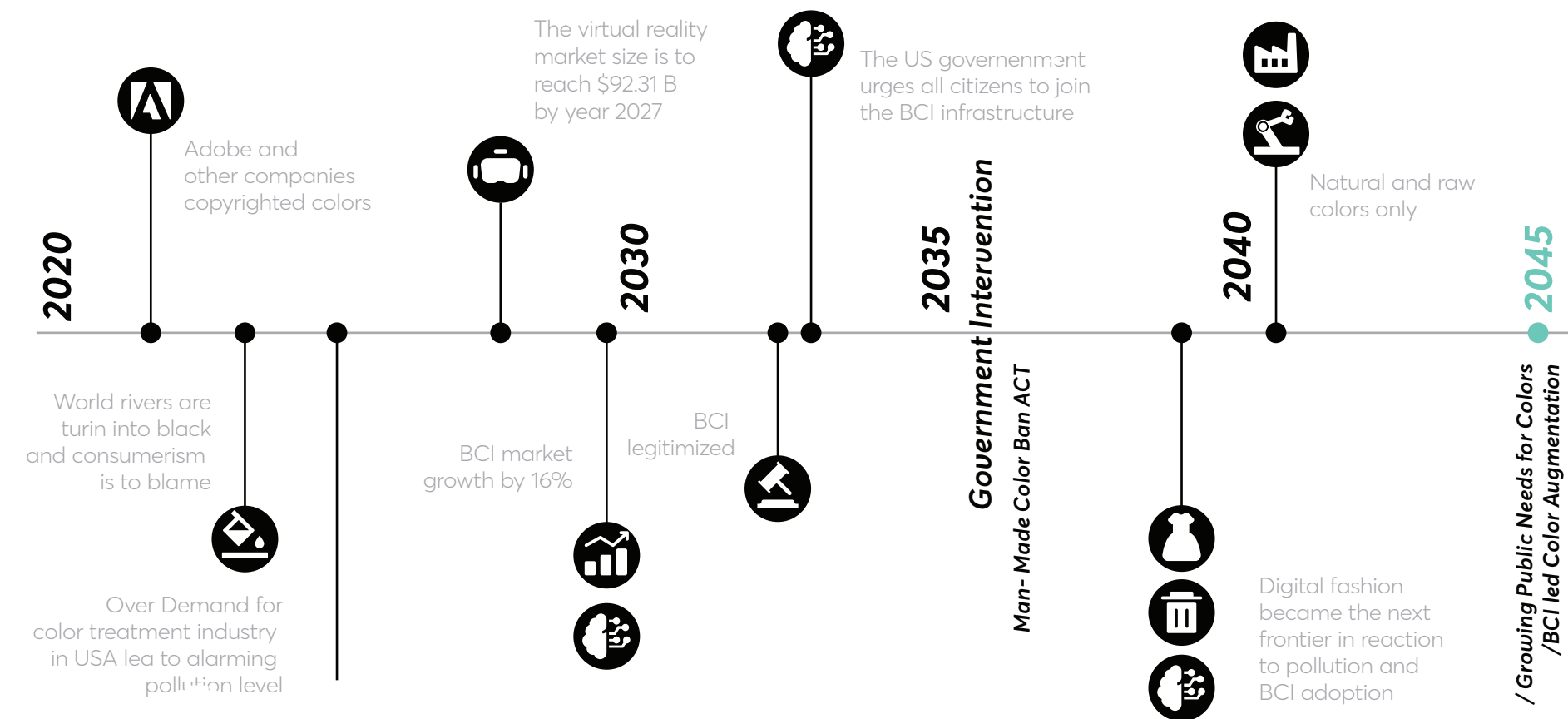
Lingke Song, Clover Li, Ash Kadam, Simian He

Collaboration Work

## Objective



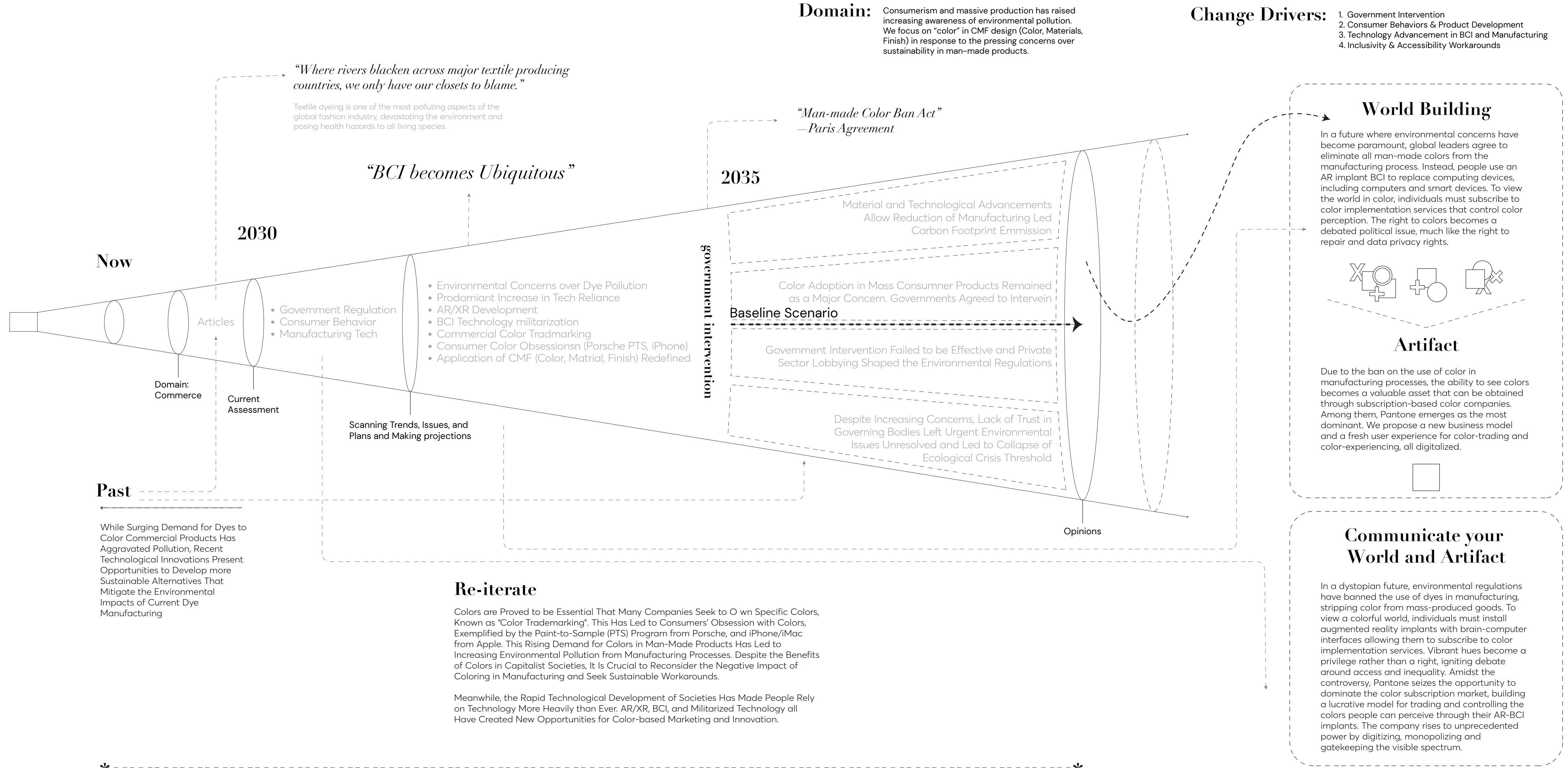
## speculative timeline

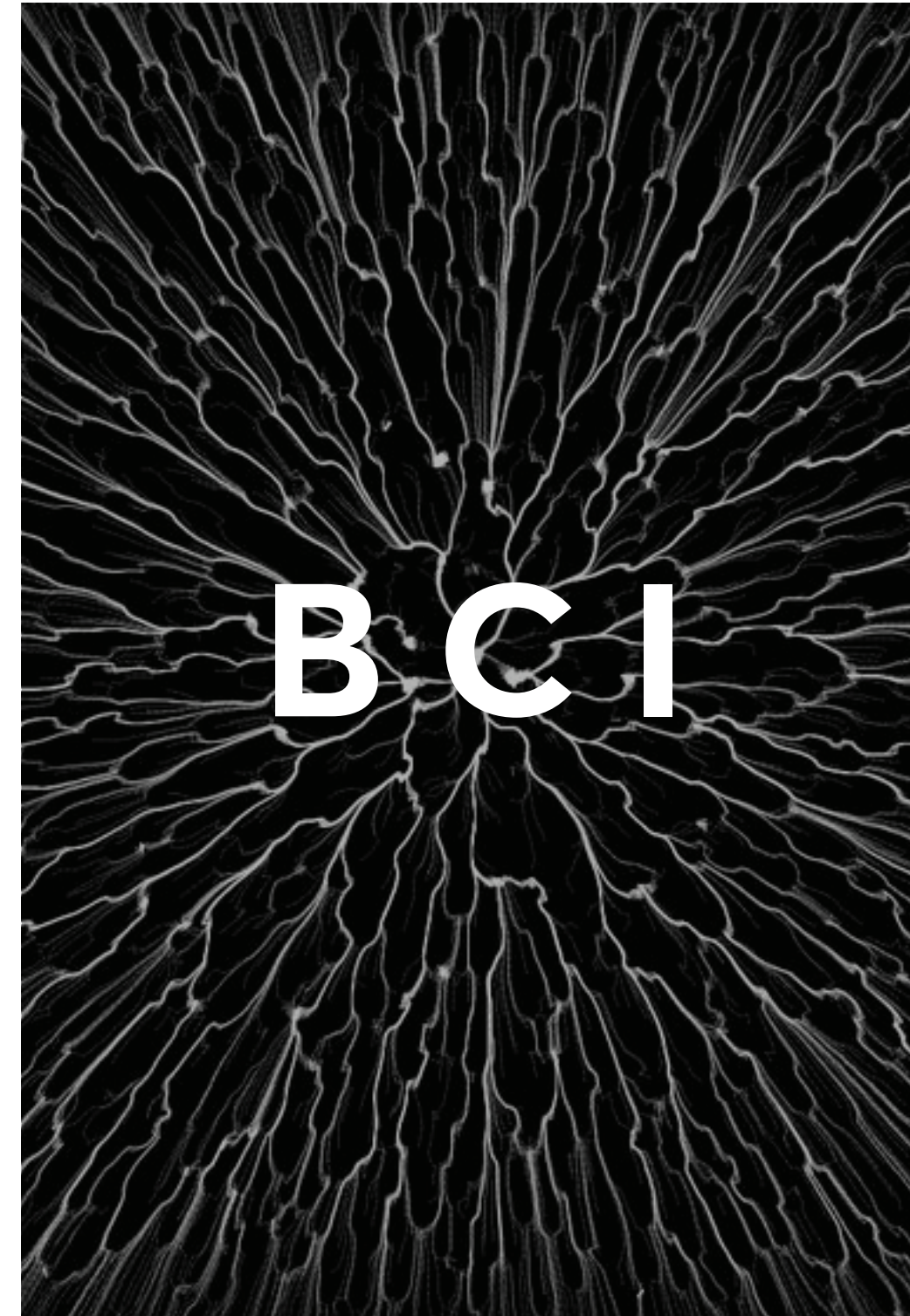


A speculative future where ubiquitous brain-computer interfaces, environmental regulations banning product color, and corporatized color subscriptions create a monochromatic world with a new divide between augmented color perception for some and colorless existence for others.



# The Future of Colors In Man-Made Products

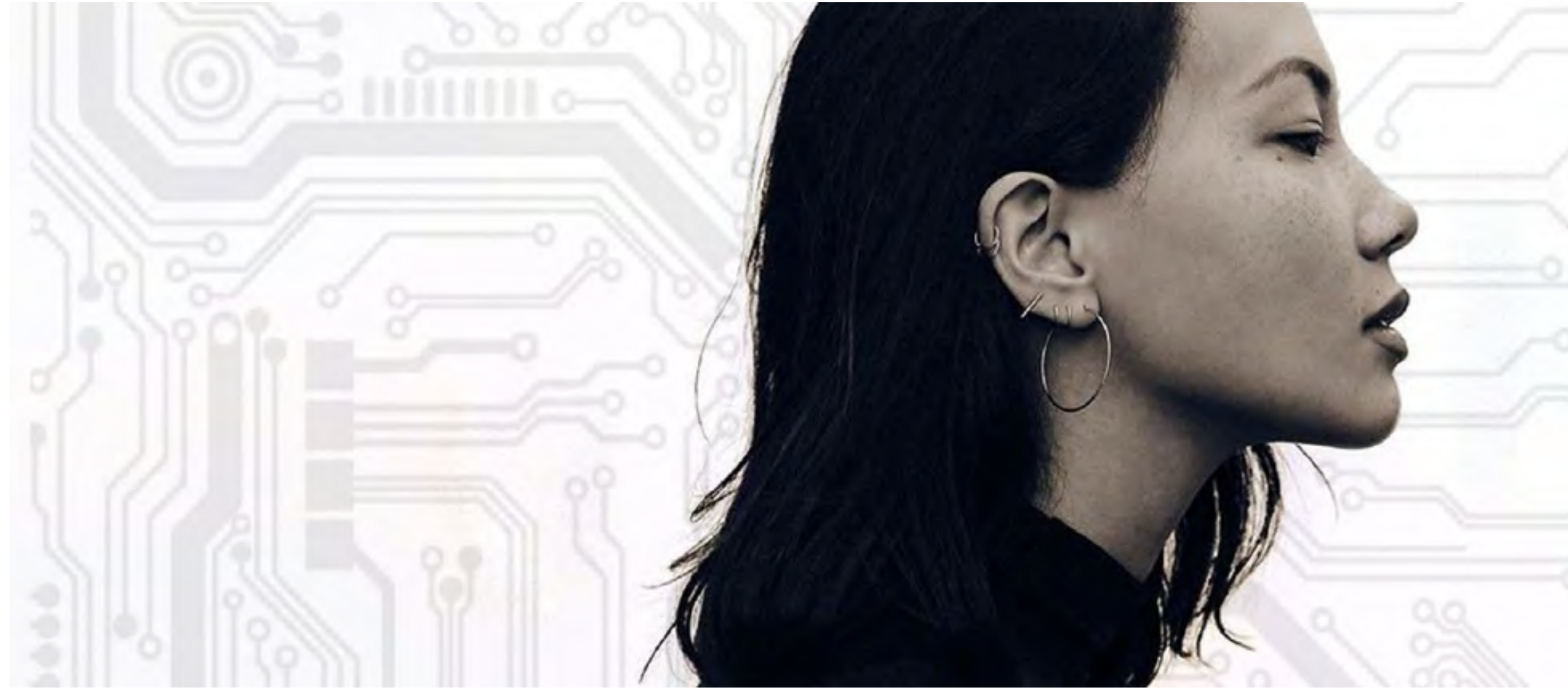




## Baseline Future

Consumer obsession and mass culture created huge demand for a vast spectrum of product colors and treatments, which multinational corporations raced to provide. This mass production and unregulated use of dyes, pigments, and other colorants ultimately led to widespread ecological devastation - polluting waterways, destroying habitats, and driving species extinctions across the globe. With all life suffering the consequences, governmental bodies finally stepped in, declaring strict bans on artificial product coloring. Manufacturing was forced to shift entirely to recycled and natural materials, leaving most products colorless. However, with virtual and augmented reality prevalent through universal brain-computer interface (BCI) adoption, leading tech and manufacturing conglomerates capitalized on the color-starved public by selling subscriptions to perceived digital color overlays usable only in virtual environments.





**Brain Computer Implant** Ubiquitous BCIs allow people's reality to be digitally altered, enabling governments to ban physical color while corporations selling subscriptions to color perception back to consumers. This facilitates a new hierarchy between those who can afford augmented color and those facing a newly colorless world.


## Scenario

The year 2035 presents a lifeless landscape of monochromatic grays—buildings, clothes, cars all bleached to a continuous monotone devoid of color's vitality. We focus on a home equally muted, with white walls surrounding a woman glancing across her colorless furniture. An optimistic BCI advertisement suddenly interrupts: "With our neural interfaces, restore color and deserve vibrancy once more!" The home transforms under colorful AR skins; the woman visualizes hues overlaying objects around her. Accessing her BCI display, an interface shows available colors for items like chairs with corresponding subscription prices and expiration dates. A new "grab and see" feature lets her preview colors on household surfaces. However, mid-demonstration, the BCI ad is hacked by critics bemoaning these color subscriptions' inaccessibility due to high costs, creating inequality between those who can perceive vibrancy and more economically disadvantaged people visually confined to the monotone world. Unphased, the advertisement resumes its profit-centric pitch before closing with the Pantone logo, implying their dominance in the privatized world of subscribed color.

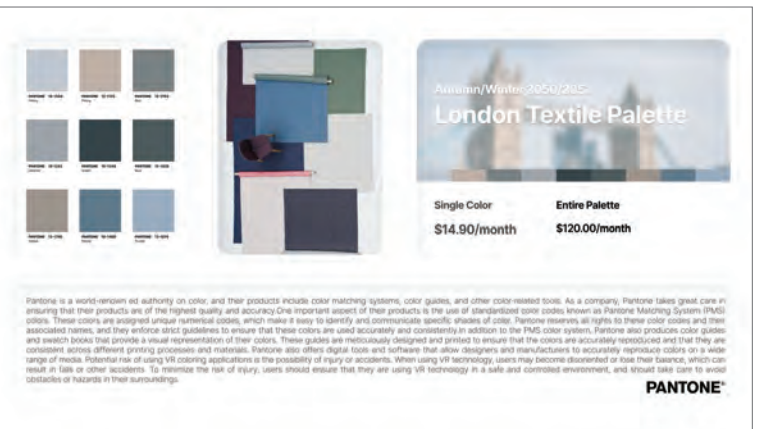
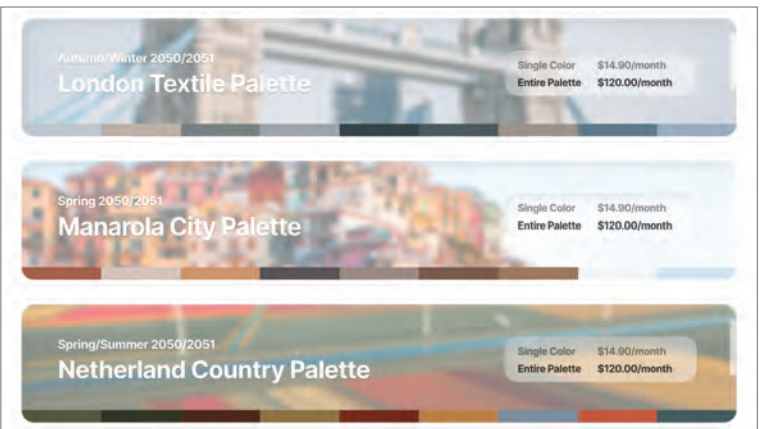
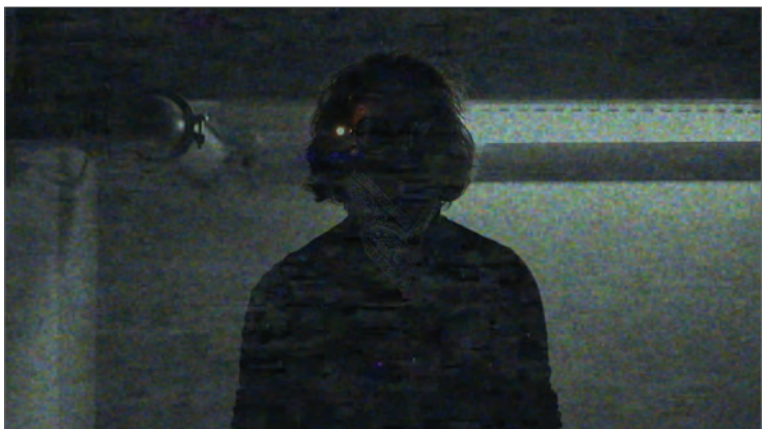
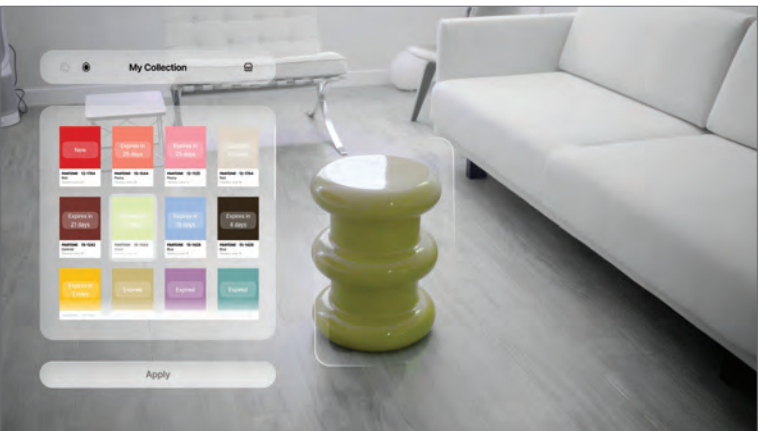
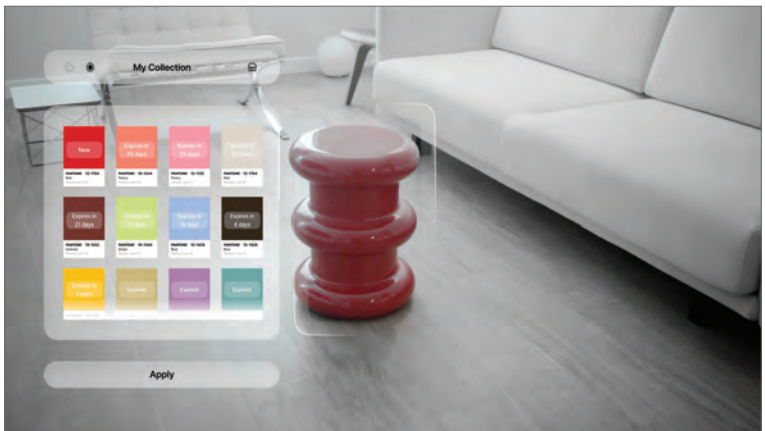
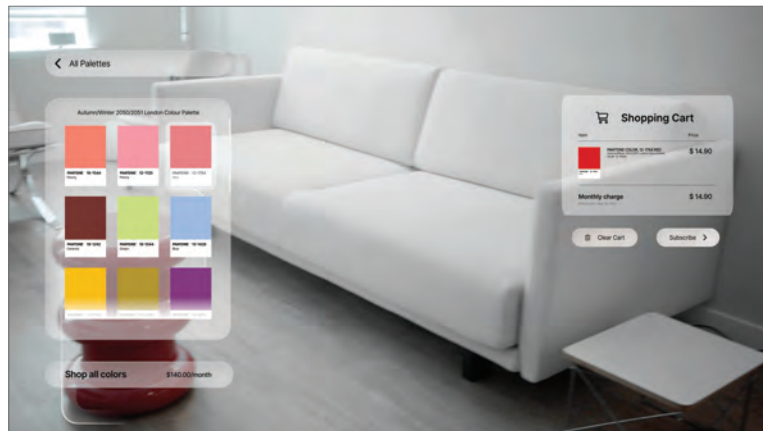
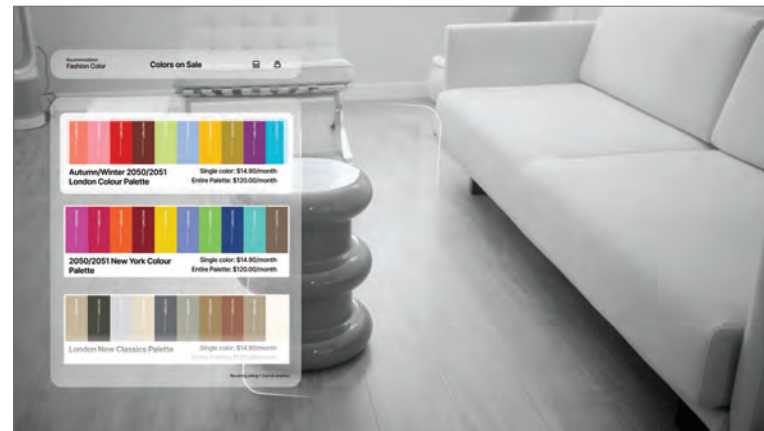




**WORLD ●**



**COMPLETE ●**



## Video

The video opens on a black and white Pantone logo, setting the monochromatic tone. We see the colorless 2035 world - bleached buildings, clothes, cars - no vibrancy anywhere. We focus on a home equally desaturated with white walls and furniture. Even a baby room holds no stimulation, absent of color. A kitchen appears equally lifeless and tasteless. A promising BCI ad plays - "With BCI, bring back vibrancy and vitality! You deserve it all!" Stop motion shows color spreading across rooms, furniture popping in hues. We settle on a woman staring at a colorless stool. An augmented color overlay promises Pantone can make your world complete. BCI Demo Scene 1 demonstrates a color palette for the stool. The woman shops color options. BCI Demo Scene 2 shows her cart. Demo 3 lays out pricing plans. Demo 4 notes color expiration dates. Then the scene changes and shows a person walking outside in orange cloth, the "grab and see" feature lets her glimpse and preview colors like blue from a passing woman's outfit. The following scene shows previewing the blue on herself. Suddenly a broadcast hijacking critiques BCI's cost and access inequities - not all can afford the BCI and color perception. They present a garage-made alternative interface. But the ad cuts back displaying more pricing options before ending on a vibrant Pantone logo.

# Synth

SPECULATIVE DESIGN  
UX & PLATFORM DESIGN

## Project Toolkit

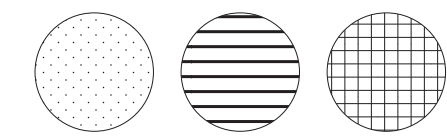
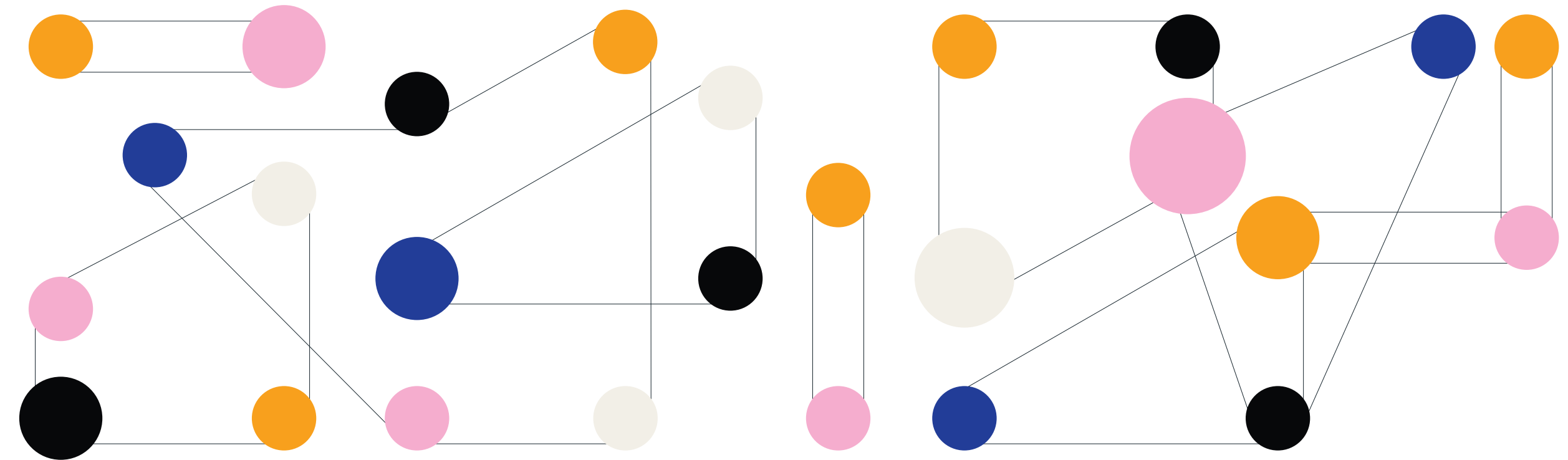
Speculative Design | Platform Design | UX / UI  
User Flow | Figma | Interface | LLM

2023, Academic, Speculative Experiments

Haesung Park, Heteng Li

Collaboration Work

## Objective



think and synthesize



discover and retrieve



morph and organize

Synth is a place to organize your digital artifacts, texts, images, and everything else. More importantly, it is a place for you to organize your thoughts and generate ideas through the intentional use and co-creation with AI. We believe that this is a better way to mediate your relationship with the digital world and facilitate harmonious relationships with AI.

There is a long lineage of rethinking how information should be organized and how technology can act as an expansion of personal memory. One of the earliest efforts at this originated from *As We May Think* by Vannevar Bush, which as early as 1945 introduced the concept of computing as "supplement to memory". However, despite

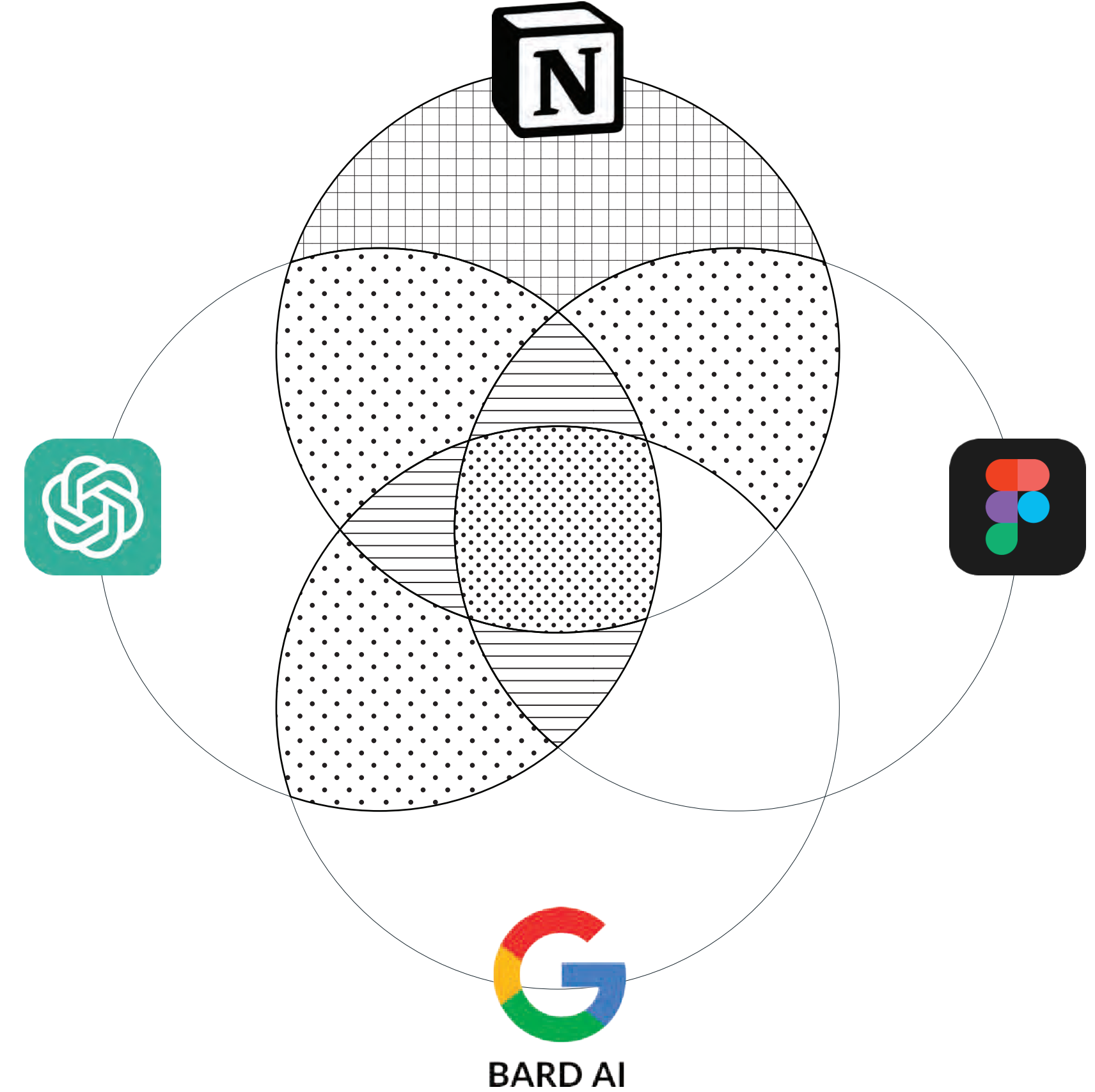
advancements made to personal computing, information technology still fundamentally relies on a hierarchical system abstracted through operating systems, apps, and files. A notable endeavor to break away from this is Apple's Knowledge Navigator, which demonstrated a computer's ability to manage schedules and documents, engage in discussions, and retrieve content based on broad queries. OpenDoc tried to materialize this vision with an App-less, document-centered interface where each file is capable of various functions. Recent years saw a re-emergence of re-thinking digital knowledge spaces, spearheaded by works such as Notion AI, where users can converse with documents to semantically retrieve information, and MercuryOS,



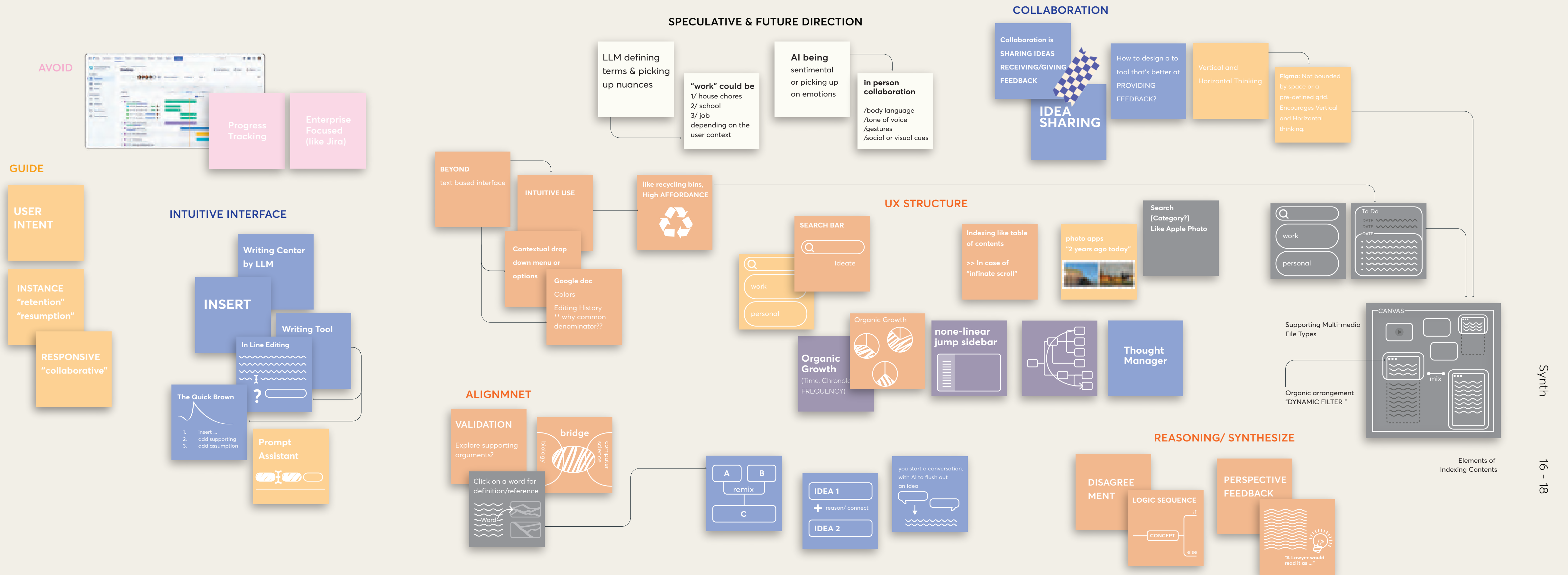
The 1966 ELIZA program pioneered conversational AI by using pattern matching to turn user inputs into open-ended questions, creating an illusion of understanding.

MIT's 1980s Put-that-there pioneered conversational interfaces with semantic speech and gesture understanding to manipulate UIs.

Apple's 1987 concept of an AI assistant conversing naturally with a professor to help with tasks like scheduling and document retrieval pioneered ideas for semantic human-computer interaction.



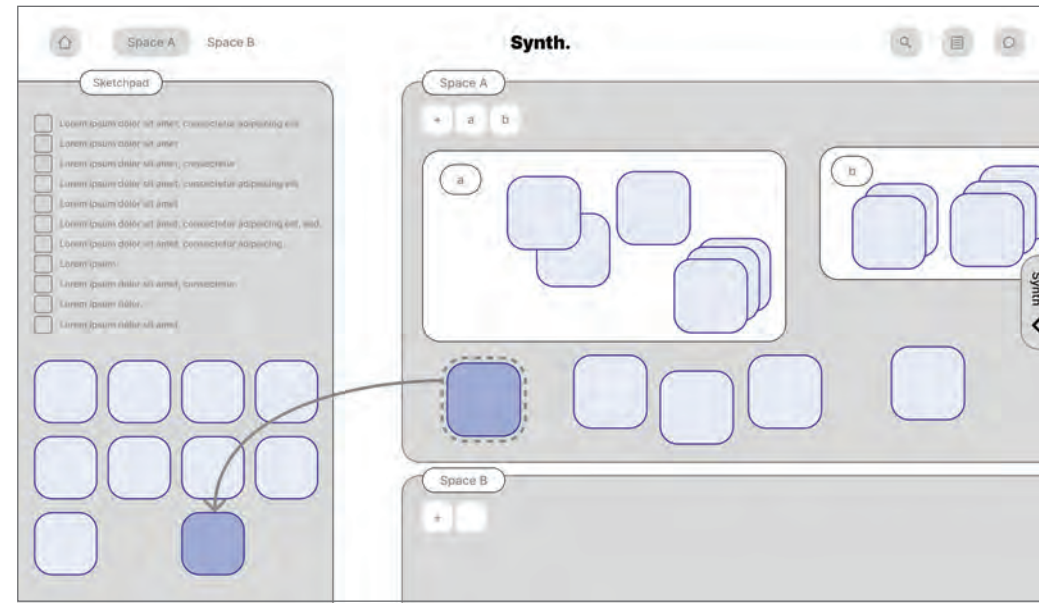
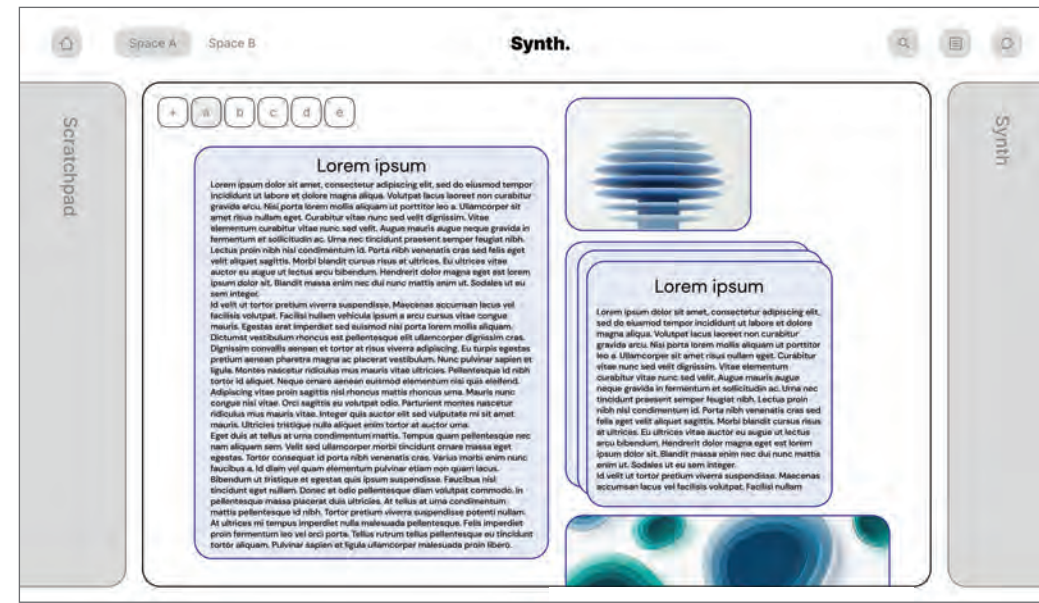
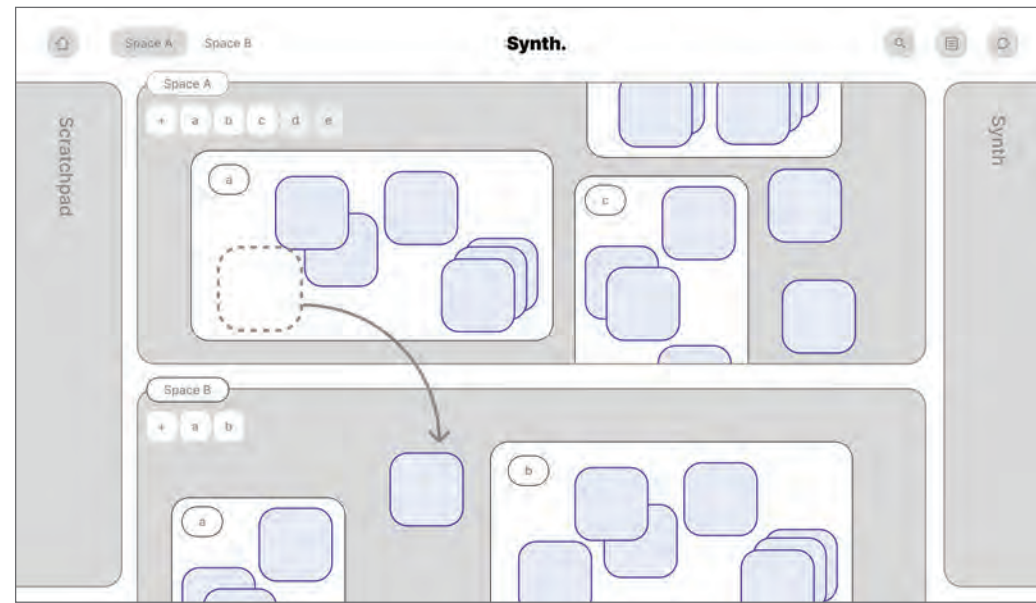
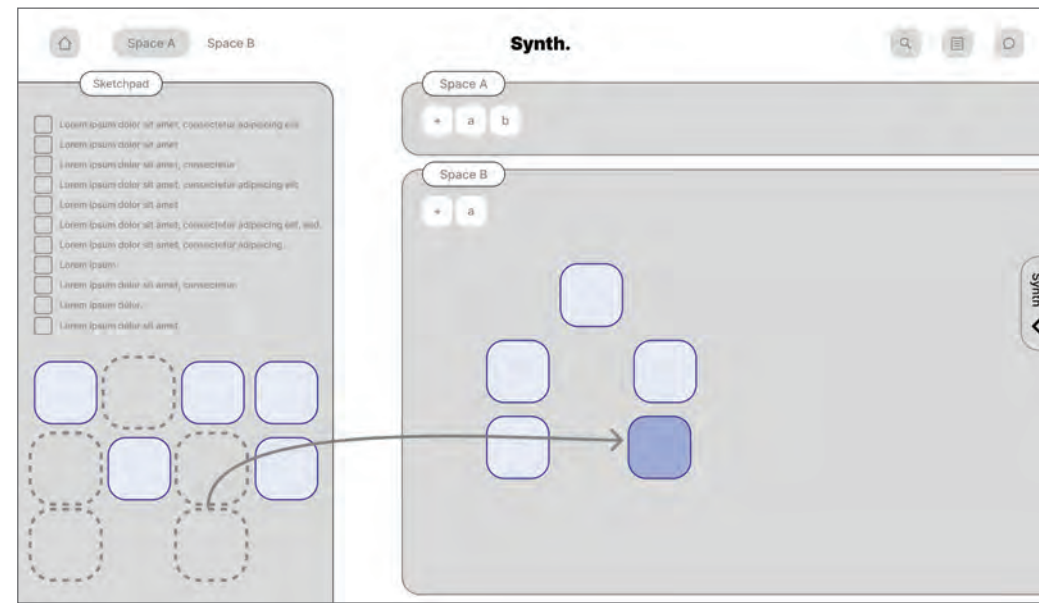
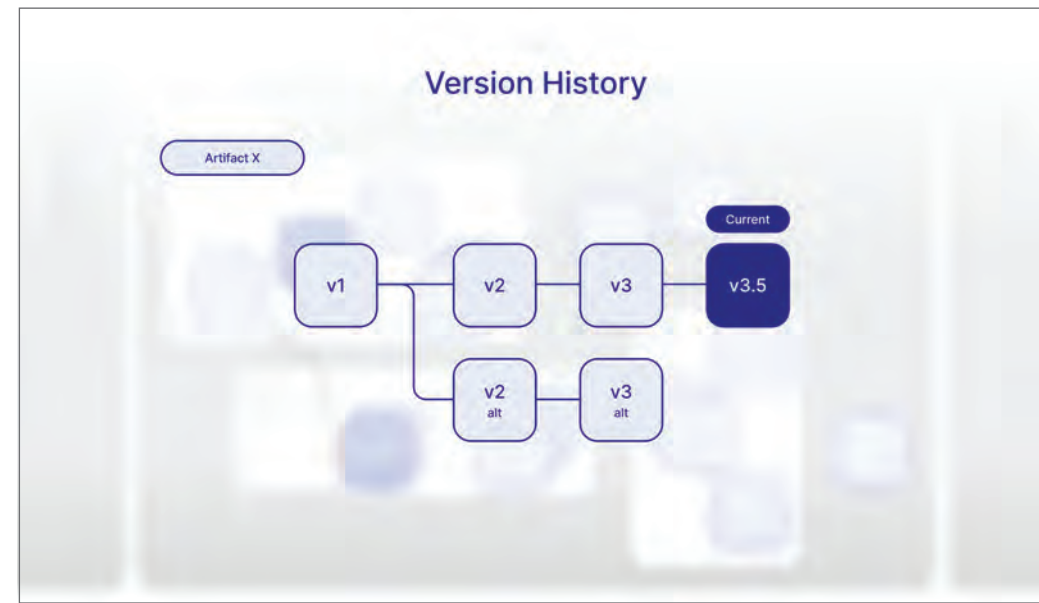
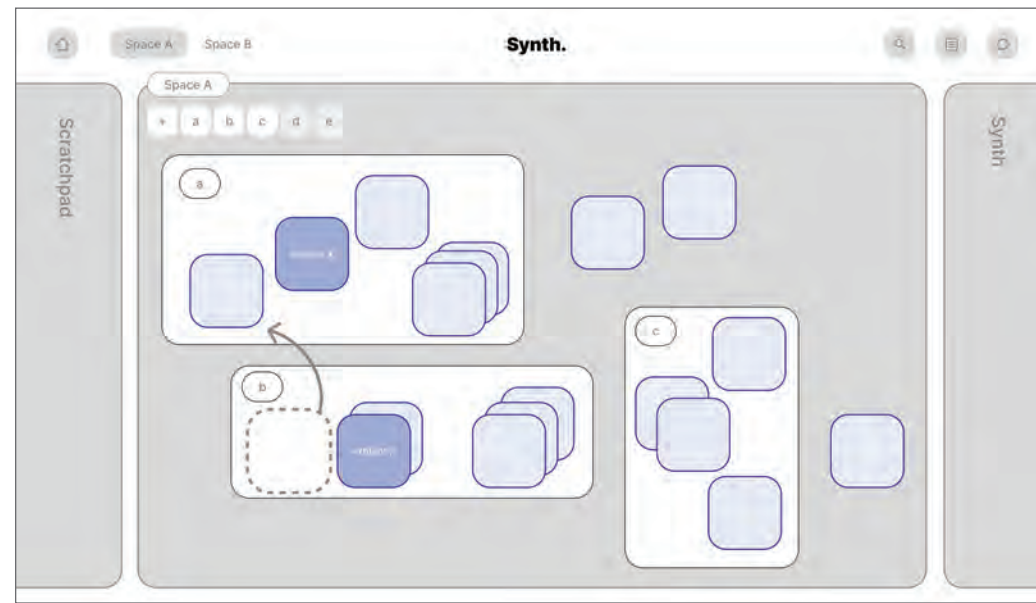
a UX concept where user flows are not bounded by which applications are open, but the usage contexts. We believe that with the democratization of access to AI, specifically LLMs and RAG (retrieval-augmented generation), opens the opportunity to streamline the workflows mentioned. This is why we propose a new form of digital workspace, an LLM powered knowledge base that helps you organize your thoughts and synthesize ideas, where archival, search, and co-creation come together as one singular platform.



## Affinity Mapping

In our quest to comprehensively understand the features and functionalities we envisioned for Synth, we embarked on an affinity mapping process. This approach was not just a mere exercise in organization, but it materialized into a pivotal aspect of our project's development. Through affinity mapping, we were able to visually group and categorize our ideas, thoughts, and expectations for Synth. This methodical arrangement of concepts allowed us to identify patterns and relationships between different features, leading to more coherent and user-focused design decisions. As a result, the affinity mapping became a guiding element, influencing every stage of the project and ensuring that the development of Synth was in perfect alignment with our initial vision and the overarching objectives we set out to achieve.





## Spaces

Synth Spaces are flexible digital canvases for organizing ideas and artifacts not in rigid hierarchies but through spatial arrangements that reflect evolving mental models, facilitating thinking through user-defined thematic groupings, semantic synthesis of contents, and fluid redevelopment of conceptual connections between imported texts, files, images and other media.

## Artifacts

Unlike traditional files trapped in fixed paths, Synth Artifacts maintain a singular origin identity across Spaces' fluid organizations, embodying ideas that can exist in multiple conceptual arrangements without fragmentation. Auto-saving and visual version control replace duplicated copies so users no longer struggle to locate the right file version. This consolidation centers digital workspace around evolving mental models rather than rigid hierarchies.

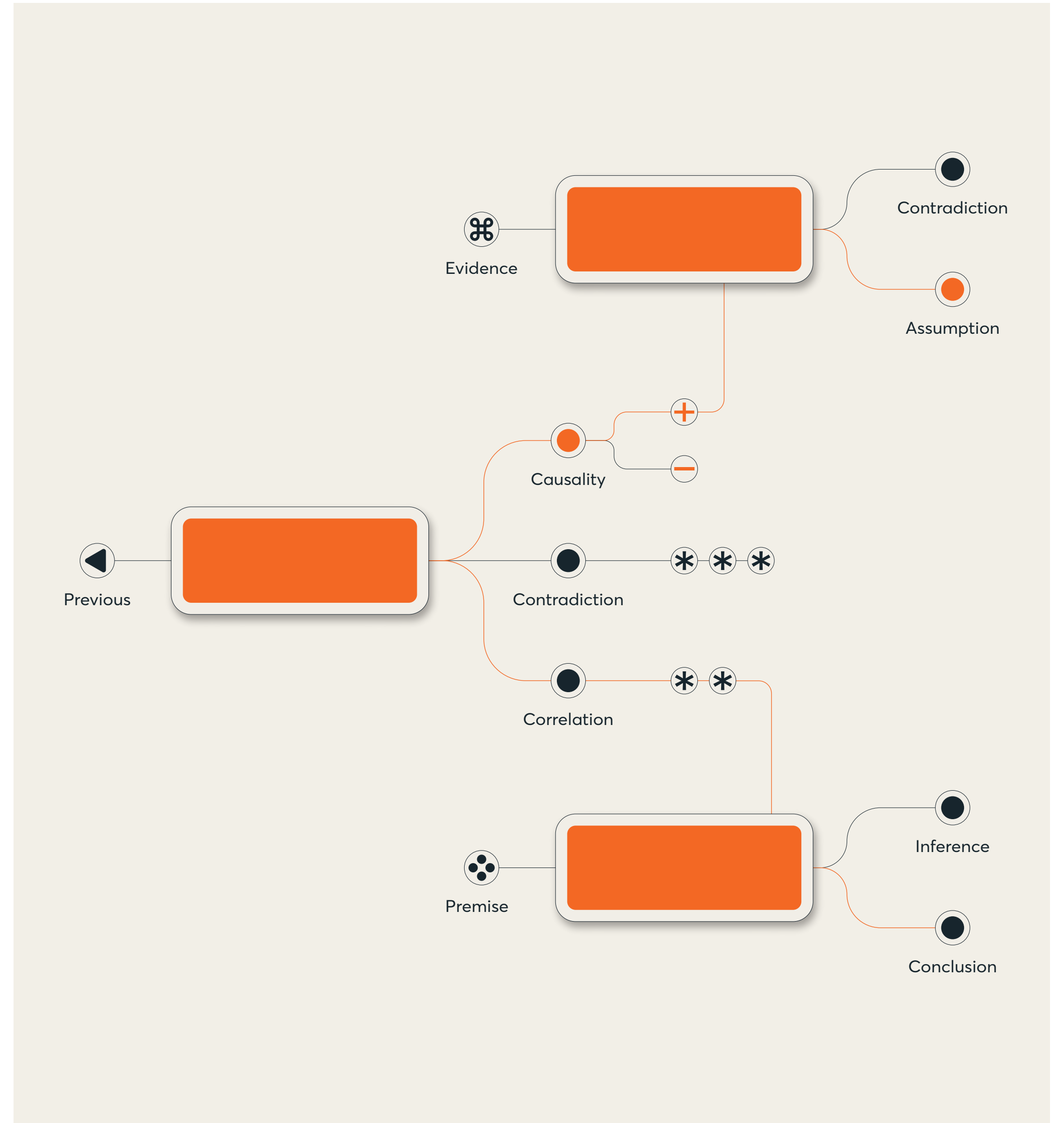
## Scratchpad

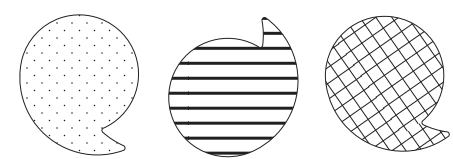
Synth's Scratchpad is a temporary vertical thought space allowing quick, effortless capture of unorganized ideas that mediates between mental buffer and structured Spaces, imposing 24-hour artifact limits to prevent hoarding and maintain its working memory-like purpose.



# Visual Reasoning

LLMs can act as powerful reasoning tools for brainstorming and ideation. However, prompt-based interfaces constrain their potential. We propose Visual Reasoning as a radical rethink of how to utilize their reasoning potential. As illustrated, users can drag Artifacts around in a Space to explore logical relationships such as causality, conditionality, equivalence, and contradictions between Artifacts. In this mode, users can select Artifacts and invite Synth to suggest possible logical relationships or input manually and ask Synth to generate further artifacts based on the conditions given. An advantage of this design is the multi-modality of inputs. Unlike input-boxes that support rich mediums, images, textual content, visual content, and all other mediums alike are more clearly denoted in Visual Reasoning and play an equal role in the reasoning process. Each Artifact acts like a node in a sequence of logical operators to generate new content. This allows for quick re-arrangements of information involved in the reasoning process and presents strong visual feedback to the user.



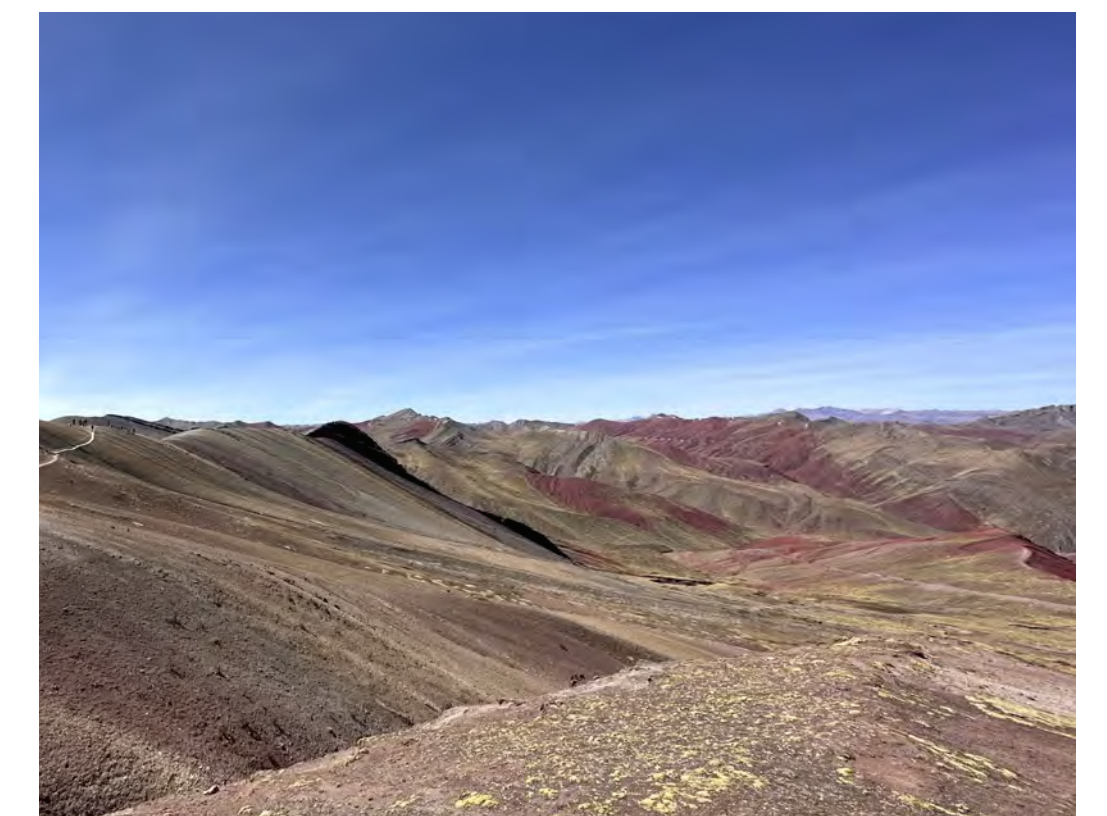
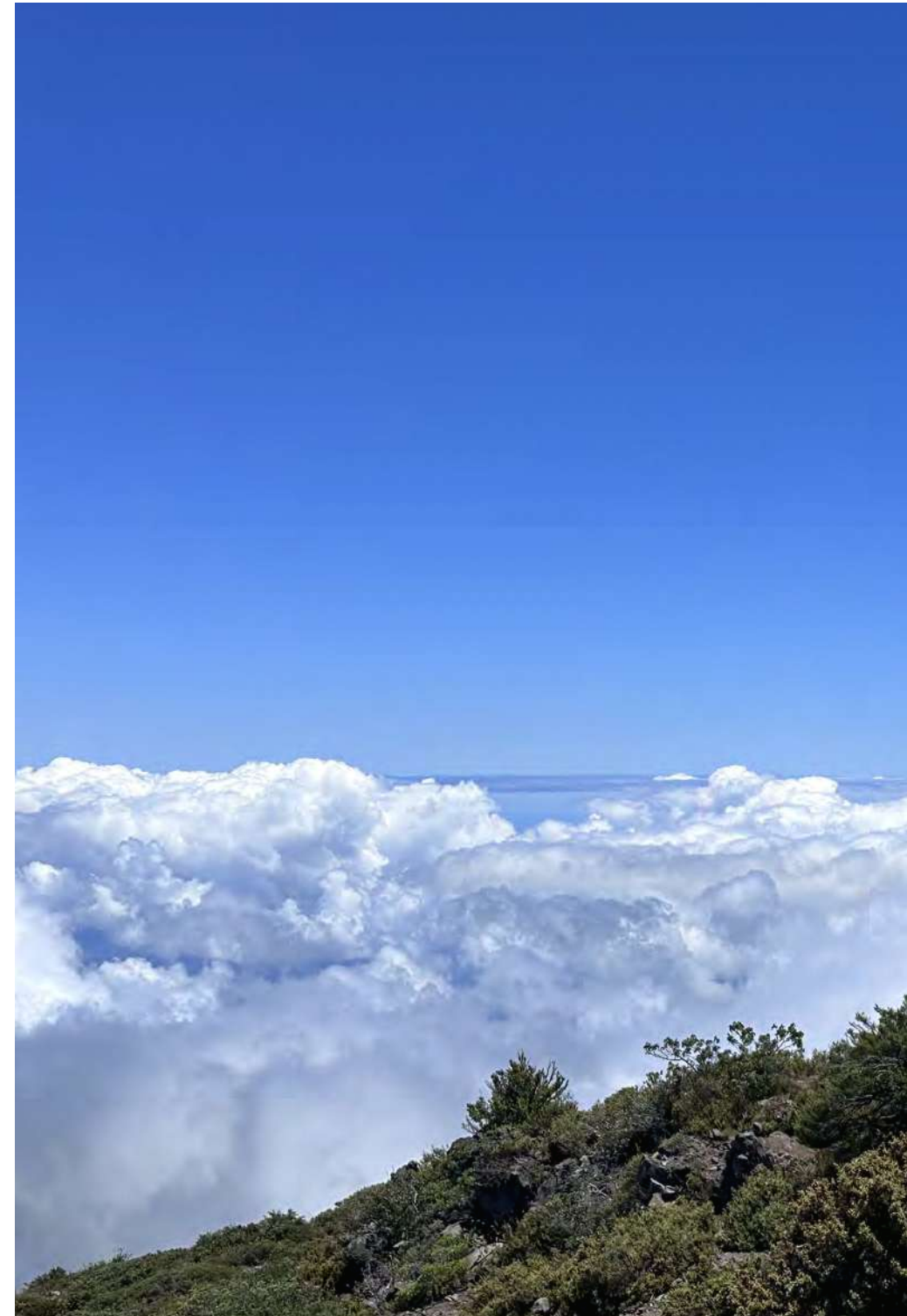


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2023, Personal Growth & Gaining World View

**D@L**

Design @ Larger (D@L) is a summer enrichment program open to all students, offering internships, fellowships, independent projects, and personal growth opportunities. With over ten years of professional experience, I opted to utilize D@L to expand my global perspective. My plan was to visit numerous historical ruins and pristine natural environments, photographing them as part of a creative project. The image shown is Meade Glacier, Alaska, United States



## Visits

My participation in the Design @ Larger program afforded me the incredible opportunity to embark on an immersive global excursion. My travels took me to wondrous destinations ranging from Alaska to Peru, where I further developed a deepened appreciation for nature while gaining exposure to a diversity of indigenous cultures. Alaska's rugged landscapes provided encounters with humpback whales, orcas, sea lions, sea otters and native avian species. As I observed the spectacular calving of gigantic glaciers firsthand, I grew increasingly alarmed by the visible impacts of climate change diminishing these frozen wonders before my eyes. Hawaii's volcanic islands offered a glimpse into Earth's primordial origins, as I ascended into the awe-inspiring cloud forests contained within the island's highest peaks and mountains. With the clouds below my feet, I gained new perspectives on the unique endemic ecosystems I discovered on my polynesian journey. Finally, exploring Peru's ancient Incan heartland nurtured further inspiration, as I studied ruins of lost civilizations and paid pilgrimage to the mind-bending, intricate beauty of Machu Picchu and the sweeping grandeur of the mysterious Nazca Lines. Immersing myself within Peru's vibrant living native traditions and cosmologies connected me more profoundly with ancestral wisdoms tied closely to the Earth.