

Syracuse University

SURFACE

Architecture Senior Theses

School of Architecture Dissertations and
Theses

Spring 2019

Emoji Disorder

Doria Miller
Syracuse University

Irving Shen
Syracuse University

Follow this and additional works at: https://surface.syr.edu/architecture_theses

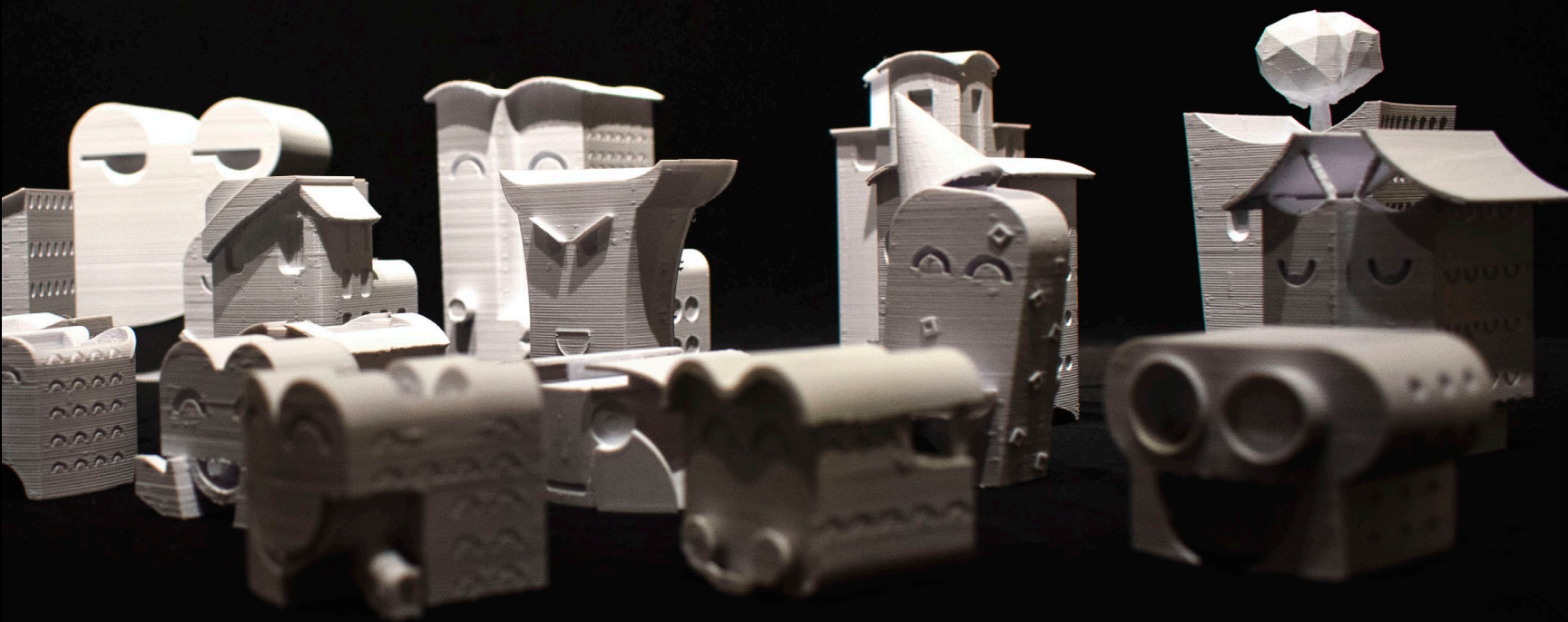


Part of the [Architecture Commons](#)

Recommended Citation

Miller, Doria and Shen, Irving, "Emoji Disorder" (2019). *Architecture Senior Theses*. 442.
https://surface.syr.edu/architecture_theses/442

This Thesis, Senior is brought to you for free and open access by the School of Architecture Dissertations and Theses at SURFACE. It has been accepted for inclusion in Architecture Senior Theses by an authorized administrator of SURFACE. For more information, please contact surface@syr.edu.



EMOJI DISORDER

3D a-z

EMOJI DISORDER

DORIA MILLER & IRVING SHEN

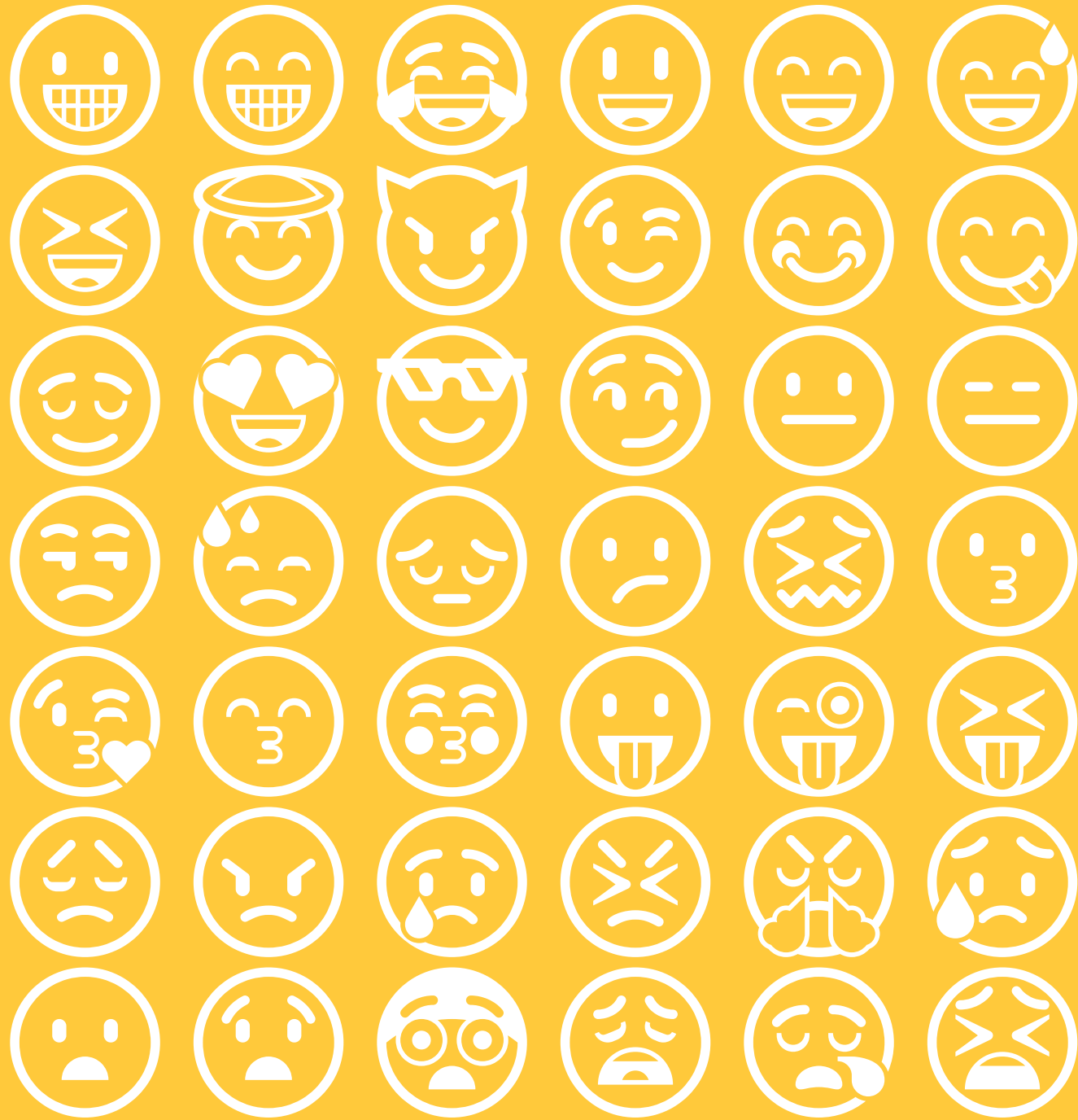
B.Arch Undergraduate Thesis Document
Syracuse University School of Architecture

Primary Advisor:
Gregory Corso

Secondary Advisors:
Jonathan Louie & Nicole McIntosh

Spring 2019

CONTENTS



CONTENTION 4

BACKGROUND
COMMUNICATION 6

visual
digital

PAREIDOLIA 18
A PLACE IN ARCHITECTURE 30

PROJECT DEVELOPMENT

SCOPE 38
EMOTICONSTRUCT 40
TESTING GROUND 66

site plan
elevations
vignettes
models

BIBLIOGRAPHY 92

CONTENTION

THIS THESIS POSITS WITH THE CONTEMPORARY CONTEXT OF A RISING DIGITAL AND VISUAL DIALECT, THE EMOJI, THE ELASTIC ARCHITECTURAL DESIGN LANGUAGE HAS THE CAPABILITY TO BE UPDATED. THE DUCK, BASED ON FORM, AND THE DECORATED SHED, BASED ON SIGNAGE, ARE NO LONGER ADEQUATE TO PROJECT MEANING ON ARCHITECTURE. THE EMOJI IS NEITHER PURELY SYMBOL NOR SIGN AND THUS IT BECOMES A FUSION OF THE TWO: A *DUCKERATED* SHED. BY REFERENCING A FAMILIAR LANGUAGE RATHER THAN CANONICAL ARCHITECTURAL PRECEDENTS, THOSE OUTSIDE OF THE DISCIPLINE CAN BETTER RELATE TO THE BUILDINGS THEY INHABIT.

COMMUNICATION VERBAL

IN VERBAL CONVERSATIONS, ONLY 7% OF WHAT WE COMPREHEND IS FROM THE PHYSICAL WORDS SPOKEN. AS DIGITAL COMMUNICATIONS LACK FACIAL CUES AND INTONATION, MESSAGES WITH SOLELY IDEOGRAMS ARE MORE LIKELY TO BE MISINTERPRETED.

53%

facial cues

38%

tone

7%

words

COMMUNICATION THEN TO NOW

LANGUAGE WAS INITIALLY SYMBOLIC,
EVENTUALLY PROGRESSING TO THE ALPHABET.
CONTEMPORARY DIGITAL COMMUNICATION
INCLUDES BOTH THE PICTOGRAM AND THE
ALPHABET. BOTH ARE INCONGRUENT BUT THE
EMOJI HAS THE ABILITY TO COMPLEMENT AND
ENHANCE THE OTHER.



Contemporary
2019 AD

COMMUNICATION VISUAL

IN ARCHITECTURAL COMMUNICATION,
ECO STATES DENOTATION IS THE SURFACE
MEANING WHILE CONNOTATION IS THE DEEPER
MEANING. EMOJIS ARE ABLE TO COMMUNICATE
ARCHITECTURALLY WITH CONNOTATION.

Pinker, Steven. "Linguistics as a Window to Understanding the Brain." *Youtube*. October 6, 2012.
Eco, Umberto. "Function and Sign: The Semiotics of Architecture." In *Rethinking Architecture: A Reader in Cultural
Theory*. Edited by Neil Leach.

How Language Works

Grammar

Rules

Phonology

Sounds

Semantics

Meaning

Pragmatics

Use

How Emoji Language Works

Grammar

Rules

Phonology

Sounds

Semantic

Meaning

Semiotics

Meaning

peach =



Pragmatics

Use

Denotation

Surface meaning

Architecture: form of inhabitation



**peach: a soft, round fruit
with pinky-orange skin**

Connotation ----- Communication

Deeper/hidden meaning

Architecture: symbolic function, value, metaphors



butt (🍑)

DIGITAL COMMUNICATION UNICODE

DIGITALLY, THE CHARACTERS WHICH CREATE DIFFERENT LANGUAGES ARE ORGANIZED BY THE UNICODE CONSORTIUM. UNICODE IS A NON-PROFIT ORGANIZATION WHICH PROVIDES A UNIQUE NUMBER FOR EVERY CHARACTER, WHETHER THAT IS A LETTER IN AN ALPHABET OR AN EMOJI, SO THESE CHARACTERS CAN BE READ ACROSS PLATFORMS, PROGRAMS, OR LANGUAGES. WITHOUT THIS SYSTEM, AN EMOJI SENT VIA AN APPLE DEVICE WOULD BE ILLEGIBLE ON AN ANDROID PHONE, ETC.



The emoticons have been organized by mouth shape to make it easier to locate the different characters in the code chart.

Faces

- 1F600 🤪 GRINNING FACE
- 1F601 🤩 GRINNING FACE WITH SMILING EYES
- 1F602 🥳 FACE WITH TEARS OF JOY
- 1F603 😄 SMILING FACE WITH OPEN MOUTH
→ 263A 😊 white smiling face
- 1F604 😁 SMILING FACE WITH OPEN MOUTH AND SMILING EYES
- 1F605 😓 SMILING FACE WITH OPEN MOUTH AND COLD SWEAT
- 1F606 😏 SMILING FACE WITH OPEN MOUTH AND TIGHTLY-CLOSED EYES
- 1F607 🙄 SMILING FACE WITH HALO
- 1F608 🤡 SMILING FACE WITH HORNS

Smileys & Emotion														
face-smiling														
No	Code	Browser	Appl	Goog	FB	Wind	Twtr	Joy	Sams	GMail	SB	DCM	KDDI	CLDR Short Name
1	U+1F600										—	—	—	grinning face
2	U+1F603													grinning face with big eyes
3	U+1F604											—	—	grinning face with smiling eyes
4	U+1F601													beaming face with smiling eyes
5	U+1F606										—		—	grinning squinting face

DIGITAL COMMUNICATION EMOJI

IN JAPANESE, THE TERM 'EMOJI' TRANSLATES TO PICTURE (E) CHARACTER (MOJI). THOUGH THERE ARE SOME CULTURAL DISCREPANCIES AMONG CERTAIN EMOJIS, THE VISUAL REPRESENTATION OF REAL OBJECTS ALLOWS EMOJIS TO BE THE CLOSEST THING TO A UNIVERSALLY UNDERSTOOD LANGUAGE. THERE IS NO TRANSLATION NEEDED TO COMPREHEND EMOJIS AS THERE IS ACROSS VERBAL LANGUAGES.



U+ 1F602
FACE WITH TEARS OF JOY

IN 2015, OXFORD DICTIONARIES WORD OF THE YEAR WAS THE 'FACE WITH TEARS OF JOY' EMOJI. NOT ONLY WAS THE CHOSEN WORD A PICTOGRAM, BUT ONE OF THE MOST PRESTIGIOUS DICTIONARIES IN THE WORLD CHOSE IT. AS EMOJIS INFLUENCE DIGITAL CONVERSATIONS, THEY SHOULD BE APPLIED TO ARCHITECTURAL LANGUAGE AS WELL.

‘It is a truth universally acknowledged



that a single man in possession of a good fortune



must be in want of a wife.’



THOUGH EMOJIS ARE BECOMING INCREASINGLY WIDESPREAD, THEY BECOME LESS SUCCESSFUL AS A UNIVERSAL FORM OF COMMUNICATION WHEN THEY ATTEMPT TO WORK AS THEIR OWN LANGUAGE. COMMUNICATING WITH PURELY EMOJIS IS CONSIDERED ‘SUBSTITUTIVE TEXT’. FROM PRIDE AND PREJUDICE & EMOJIS, ABOVE, THE NOVEL IS TRANSLATED TO EMOJI SENTENCE EQUIVALENTS. WITHOUT THE TEXTUAL REFERENCE, THE EMOJI PHRASES BECOME CONFUSING AND NEARLY ILLEGIBLE.



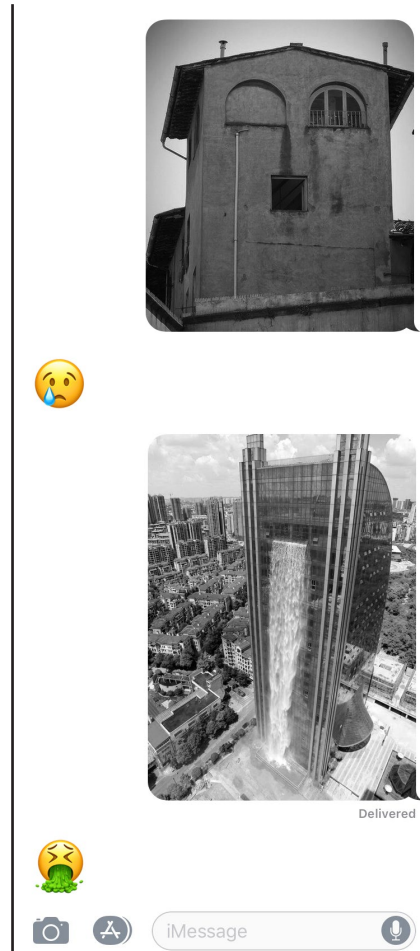
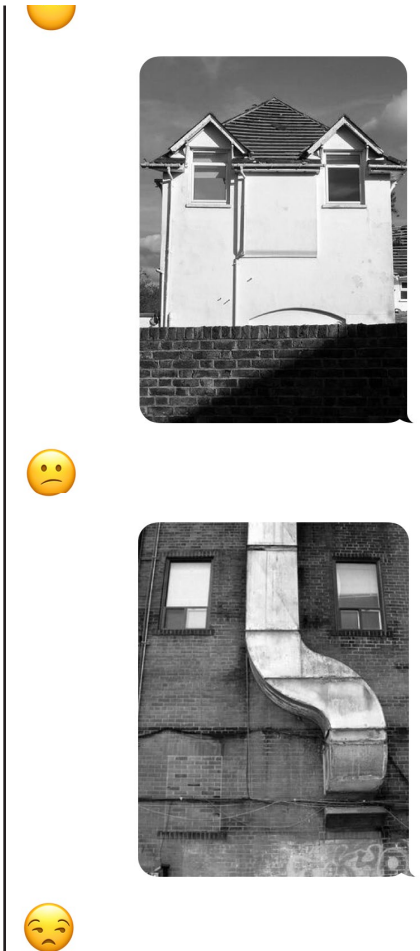
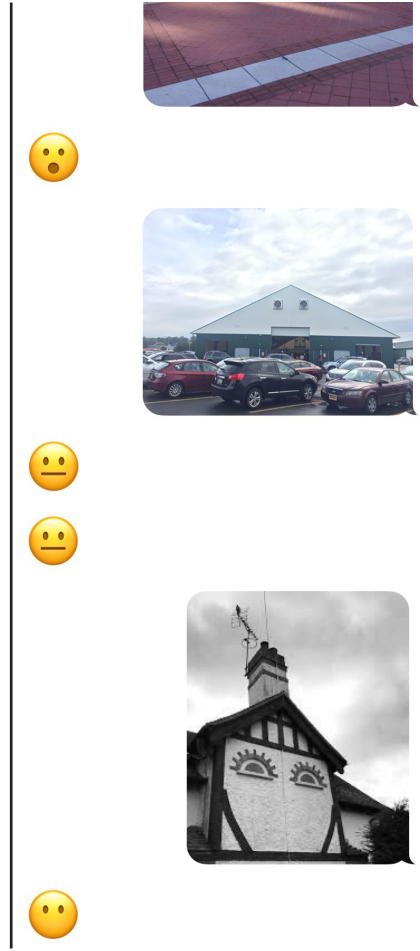
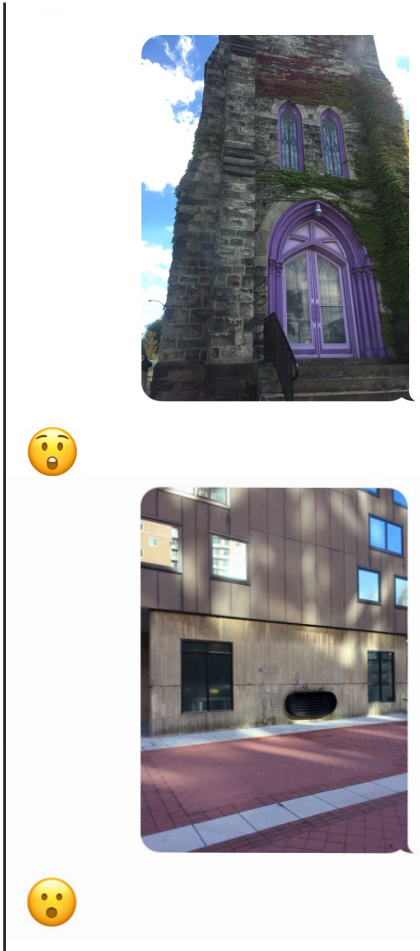
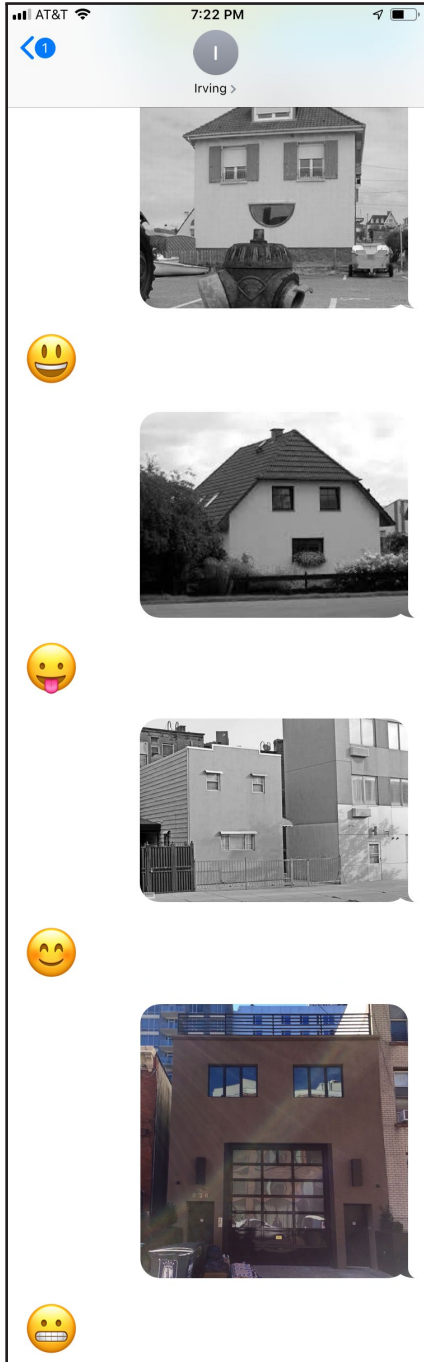
WRITTEN ENTIRELY IN SYMBOLS, BOOK FROM THE GROUND, ABOVE, FOLLOWS THE DAY IN THE LIFE OF AN OFFICE WORKER. THE ENTIRE BOOK, FRONT, BACK, AND EVEN PUBLISHING INFORMATION IS REPRESENTED AS SYMBOLS. IT IS MEANT TO BE A BOOK THAT ANYONE CAN UNDERSTAND, YET IT IS WIDELY MISINTERPRETED. IN ORDER FOR SYMBOLS TO ENHANCE COMMUNICATION, THEY NEED TO AUGMENT THEIR CONTEXT RATHER THAN REPLACE IT ENTIRELY.

PAREIDOLIA

n.

**THE PERCEPTION
OF APPARENTLY
SIGNIFICANT PATTERNS
OR RECOGNIZABLE
IMAGES, USUALLY
FACES, IN RANDOM
OR ACCIDENTAL
ARRANGEMENTS OF
SHAPES AND LINES**

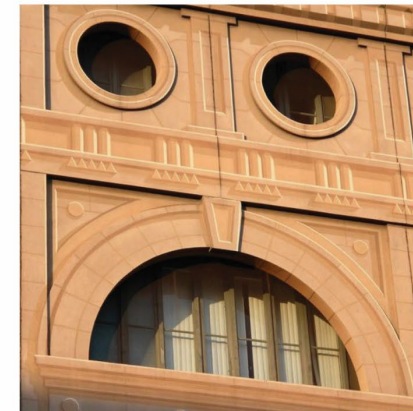
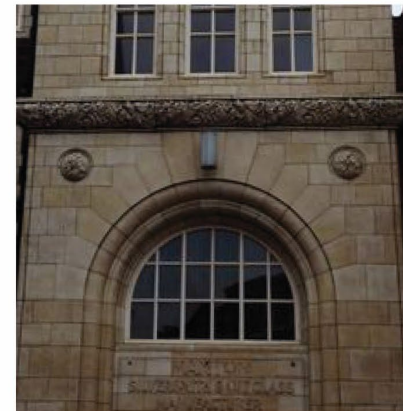
INITIALLY ASSOCIATED WITH MANNERIST PAINTINGS, IN WHICH REALISTICALLY PROPORTIONATE FACES ARE DEPICTED OF ALTERNATE OBJECTS, VIEWING PAREIDOLIA THROUGH THE LENS OF EMOJIS ALLOWS ABSTRACTED FORMS TO BE READ AS SIMPLIFIED FACES.





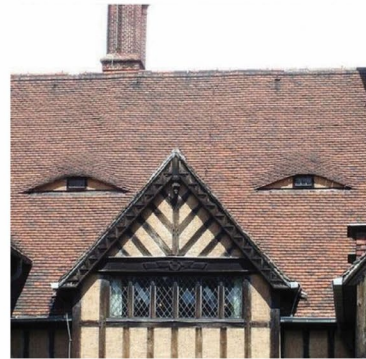
EYES

NOSE



HUMAN INTERVENTION

MOUTH



EYELIDS





Nirvana House
Aida-Doi Architects



Kruezburg Tower
John Hejduk



Face House
Kazumasa Yamashita



Carlos Ramos Pavilion
Alvaro Siza

INTENTIONAL

FACES

A PLACE IN ARCHITECTURE

THE SAME PARTS OF THE BRAIN ARE ACTIVATED WHEN LOOKING AT A GIVEN EMOJI EMOTION AND THE SAME HUMAN EMOTION. APPLYING EMOJIS TO ARCHITECTURE CREATES A BUILDING TYPOLOGY WHICH COMMUNICATES ITS PROGRAM THROUGH THE USER'S EMPATHETIC REACTION TO THE ARCHITECTURE. **ARCHITECTURE PARLANTE** AIMED PROJECT A BUILDING'S FUNCTION OR IDENTITY. THIS WAS LATER REVITALIZED WITH THE EMERGENCE OF **POSTMODERNISM.**

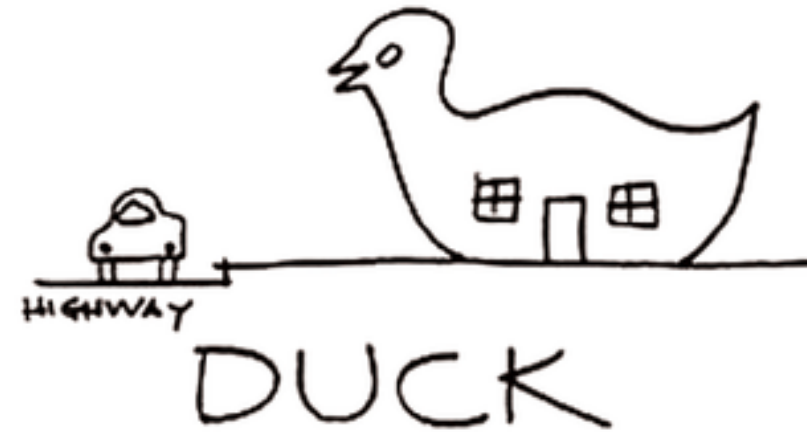
Charles Jencks' definition of Postmodernism:

“DOUBLE-CODING: THE COMBINATION OF MODERN TECHNIQUES WITH SOMETHING ELSE (USUALLY TRADITIONAL BUILDING) IN ORDER FOR ARCHITECTURE TO COMMUNICATE WITH THE PUBLIC AND A CONCERNED MINORITY, USUALLY THE ARCHITECTS.”

“THE LANGUAGE OF EMOJI APPLIES THE DECORATED SHED TO THE DUCK: ANOTHER LAYER OF LANGUAGE IS ENCODED ONTO A FORM, ONE OF IMAGE AND FORM AND THE OTHER OF LINGUISTIC MEANING.”

-JOANNA GRANT

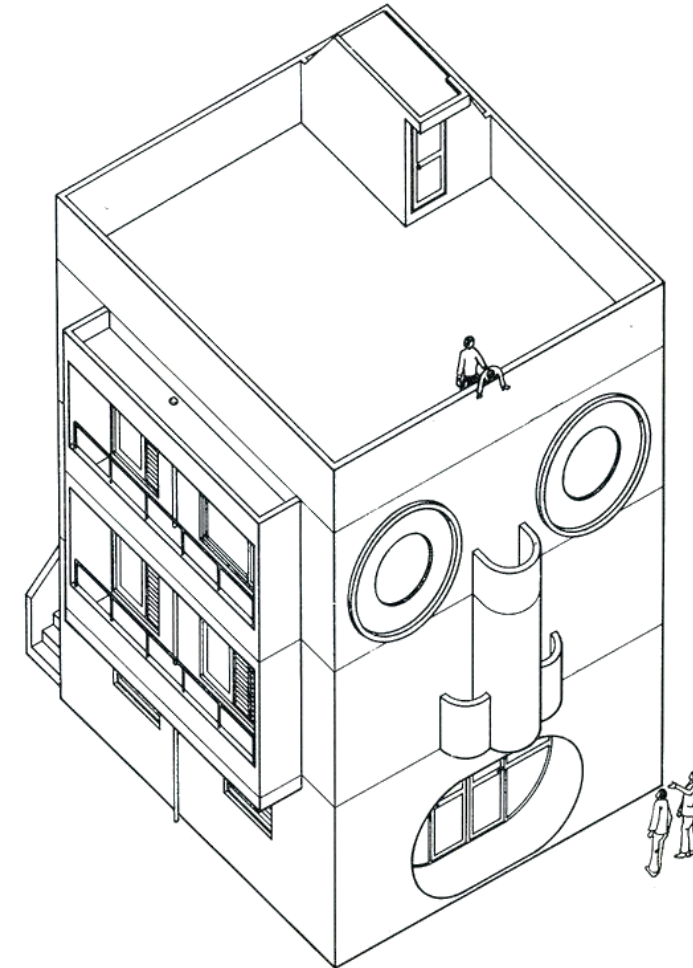
AS EMOJI ARE BOTH LANGUAGE AND SYMBOL, THEY WOULD NOT FIT INTO EITHER THE DUCK OR DECORATED SHED CATEGORY. WHEN INTRODUCING EMOJI TO ARCHITECTURE, THE DUCK AND THE DECORATED SHED ARE NO LONGER ADEQUATE TO PROJECT MEANING ONTO ARCHITECTURE. THE SYMBOLIC LANGUAGE OF EMOJIS CALLS FOR A HYBRID MODEL: THE DUCKERATED SHED.



VS

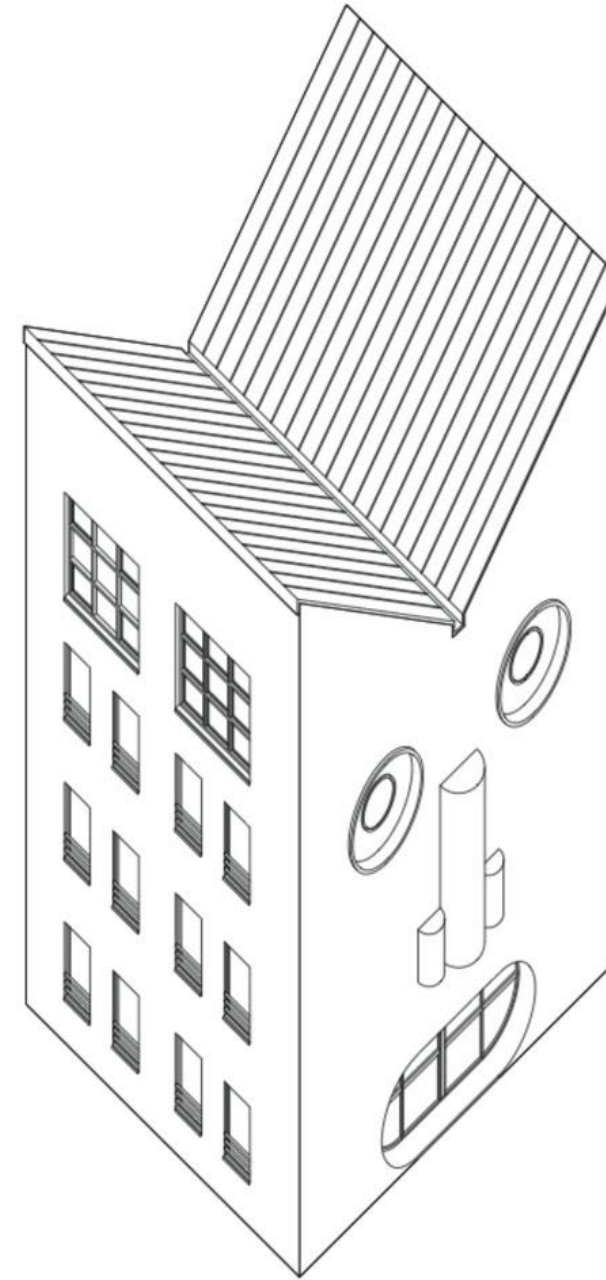


THE FACE HOUSE BY KAZUMASA YAMASHITA IN KYOTO IS A HOME FOR A COUPLE WHO ARE GRAPHIC DESIGNERS. THE HOUSE ACTS AS A GRAPHIC REPRESENTATION OF THEIR PROFESSION AND IS ENTHUSIASTICALLY ACCEPTED BY THE RESIDENTS.



Kazumasa Yamashita, *Face House*. Kyoto, Japan.

IN CONTRAST, THE KREUZBERG TOWER BY JOHN HEJDUK WAS DESIGNED WITH A FACE FOR A FACADE BUT THE DESIGN WAS ULTIMATELY CHANGED TO A MORE MUTED REPRESENTATION OF A FACE.



John Hejduk, *Kreuzberg Tower*. Berlin, Germany, 1988.

PROJECT SCOPE

ACCORDING TO THE "FULL EMOJI LIST, V. 12.0" BY UNICODE, THERE ARE 102 EMOJIS UNDER THE "FACE" CATEGORY. THE CATALOG ON THE RIGHT SHOWS ALL 11 CATEGORIES WITH AN EXCEPTION OF THE PENDING "YAWNING FACE". THIS THESIS SELECTED 40 EMOJIS, INDICATED BY THE ONES HIGHLIGHTED WITH COLORS ON THE RIGHT. THE EMOTION OF EACH EMOJI ADVERTISES THE EMOTIONAL EXPERIENCES ONE CAN RECEIVE FROM THE ASSIGNED ARCHITECTURAL PROGRAM.

smiling



affection



tongue



hand



neutral-skeptical



sleepy



unwell



**accessories
(hat+glasses)**



concerned



negative



costume



**All emojis shown are from the Windows platform.*

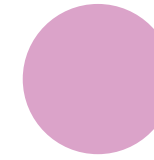
EMOTICONSTRUCT

EMOTICONSTRUCTS FROM EACH CATEGORY ARE ASSIGNED WITH COLORS THAT RESONATES WITH THEIR EMOTIONS. THE ASSIGNED COLORS ARE THEN APPLIED TO THE DESIGNED EMOTICONSTRUCTS. FACIAL ELEMENTS ARE TRANSLATED INTO ARCHITECTURAL PARTS, FOR INSTANCE, EYEBROWS BECOME ROOFS AND EYES BECOME WINDOWS. LASTLY, THE PERIMETERS OF THE EMOTICONSTRUCTS ARE CURVED, THE FRONTAL READINGS OF FACES ARE IMMEDIATE AND THE EMOTICONSTRUCTS MAY HAVE MULTIPLE FACES AS THEIR FACADES TO MAXIMIZE VISIBILITY.



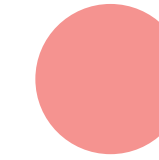
smiling

lime:
kindness/harmony



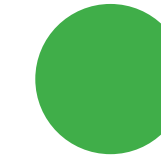
affection

pink:
love



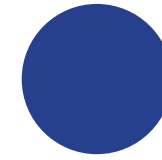
tongue

coral:
tasty/energizing



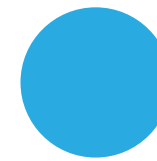
hand

green:
life/growth



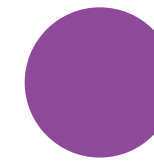
**neutral
-skeptical**

dark blue:
authoritative



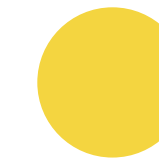
sleepy

baby blue:
calm



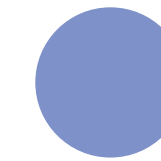
unwell

purple:
soothing



accessories

yellow:
playful/humor



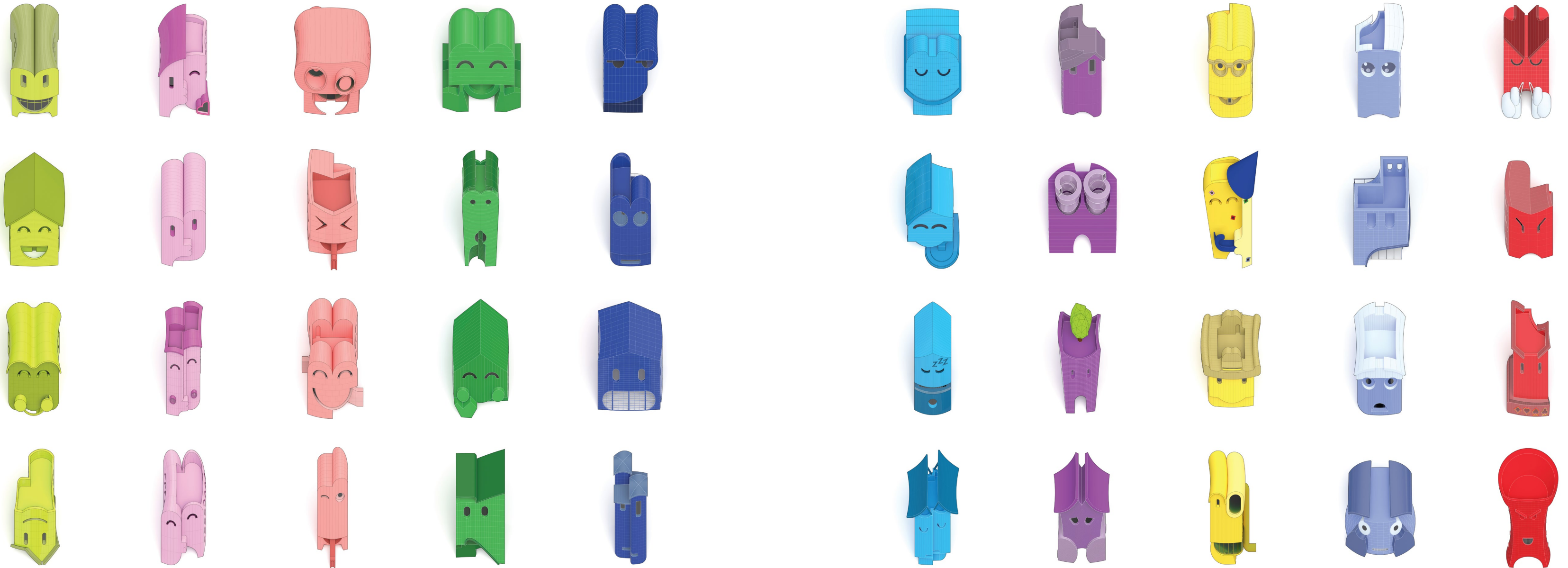
concerned

periwinkle:
patient/sad



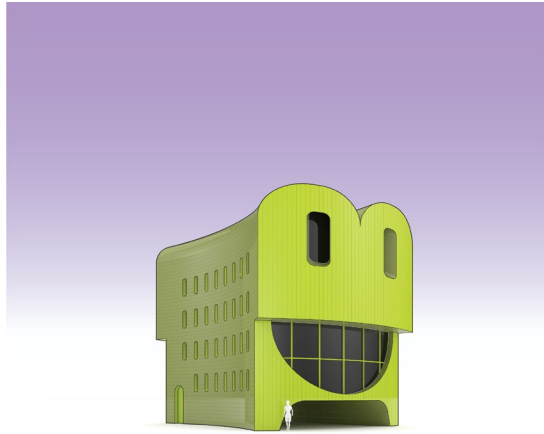
negative

red:
danger



smiling **affection** **tongue** **hand** **neutral -skeptical** **sleepy** **unwell** **accessories** **concerned** **negative**

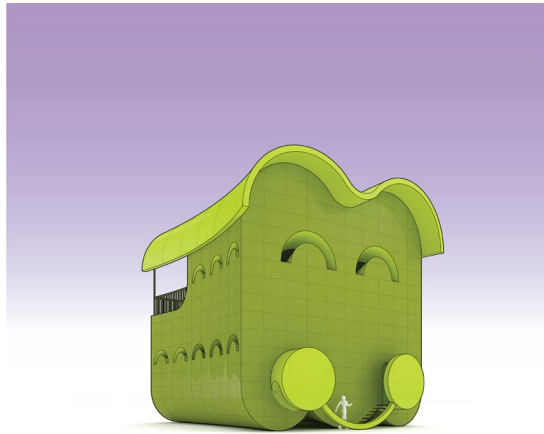
smiling



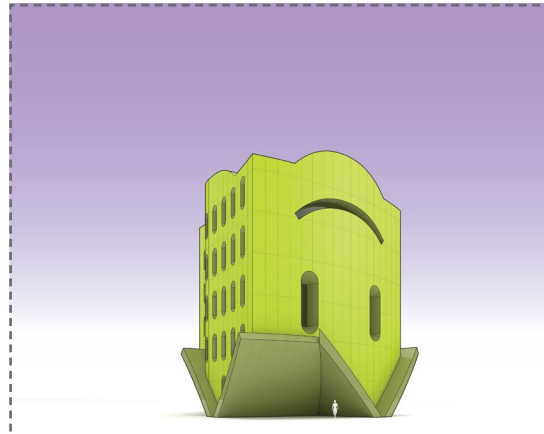
 **grinning face**
Ice Cream Shop



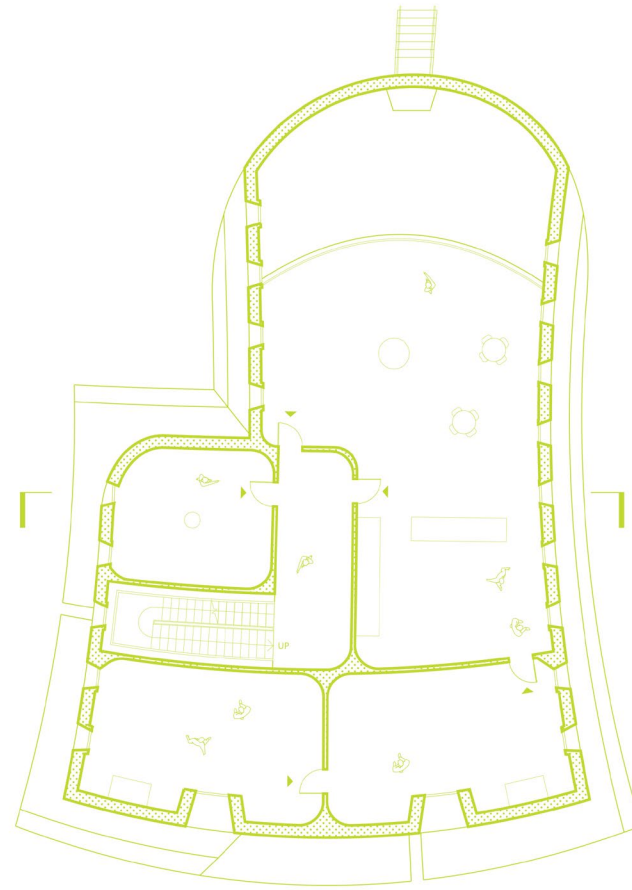
 **grinning face with smiling eyes**
Lego Store



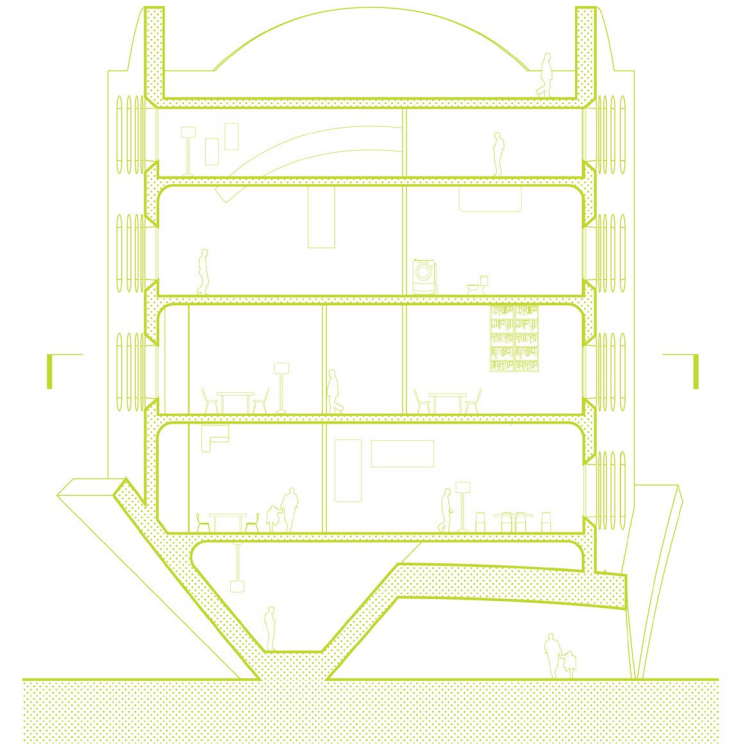
 **smiling face with smiling eyes**
Donut Shop




 **upside-down face**
Ripley's Believe It or Not!



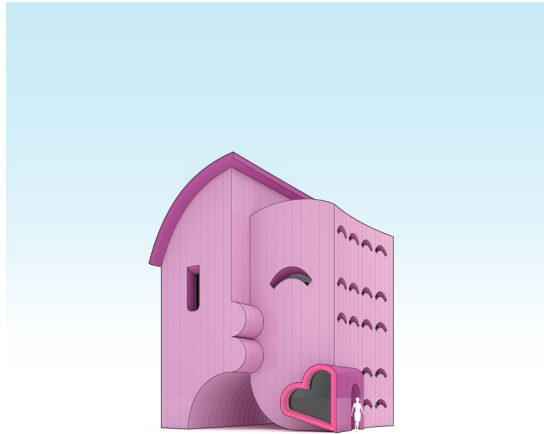
Plan



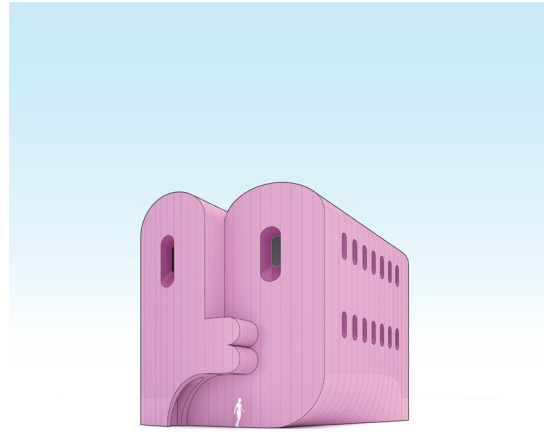
Section


upside-down face
Ripley's Believe It or Not! 

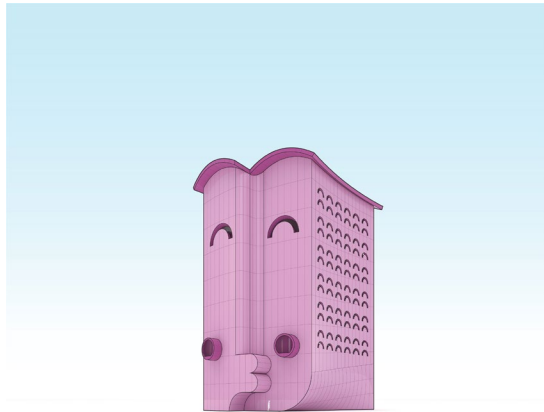
affection



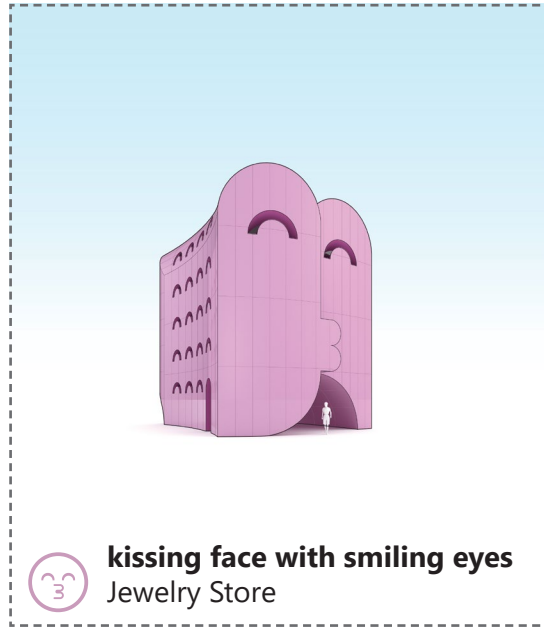
 **face blowing a kiss**
Strip Club




 **kissing face**
Sex Therapist

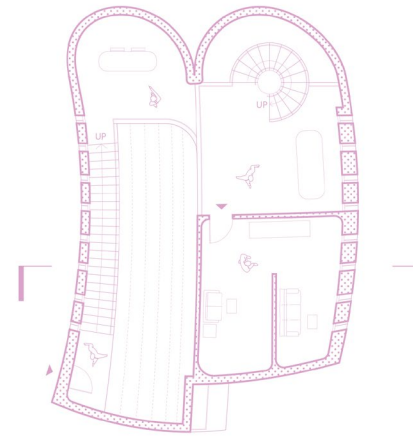


 **kissing face with closed eyes**
Wedding Store

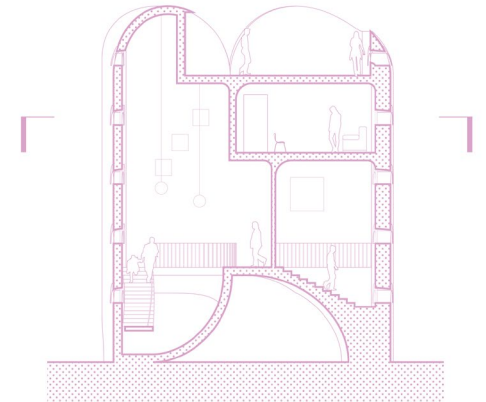


 **kissing face with smiling eyes**
Jewelry Store

kissing face with smiling eyes
Jewelry Store

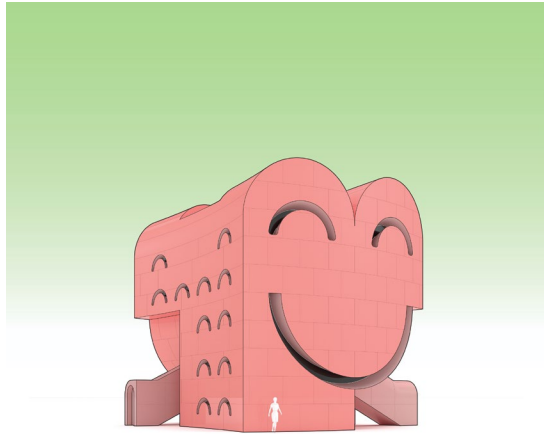


Plan

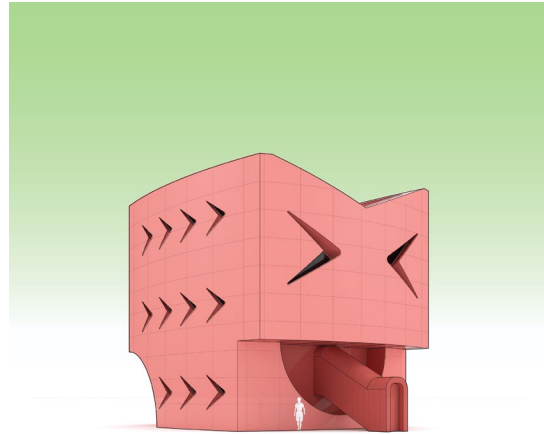


Section

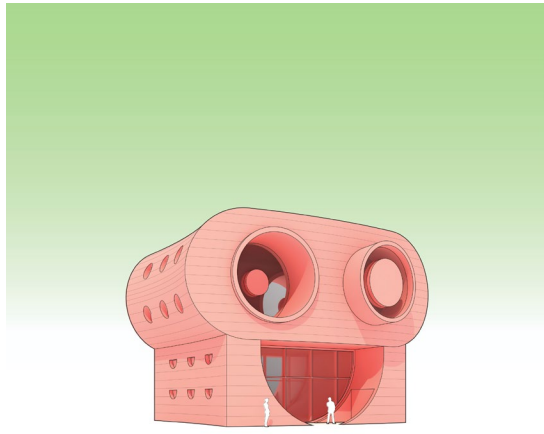
tongue



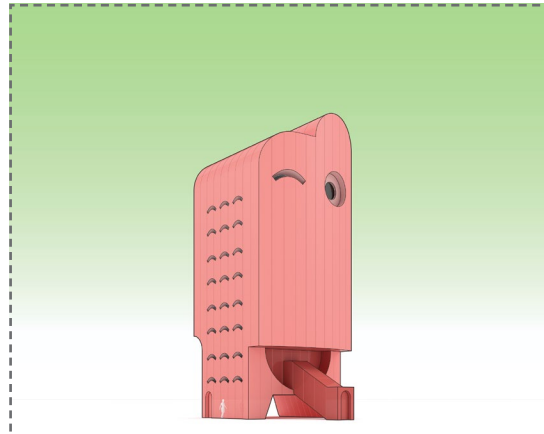
 **face savoring food**
Pizzeria



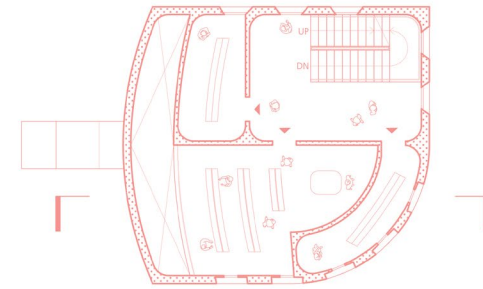
 **squinting face with tongue**
Compost Center



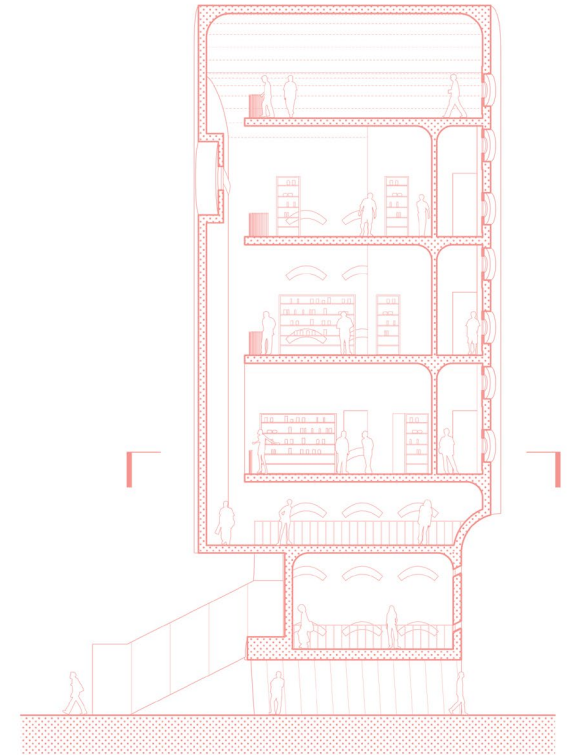
 **zany face**
Gag Gift Shop




 **winking face with tongue**
Adult Store



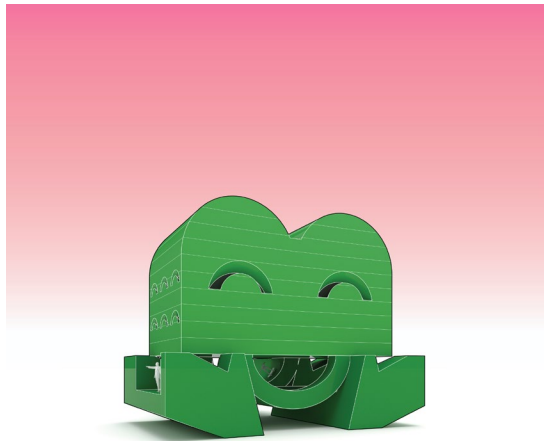
Plan



Section

winking face with tongue
Adult Store 

hand




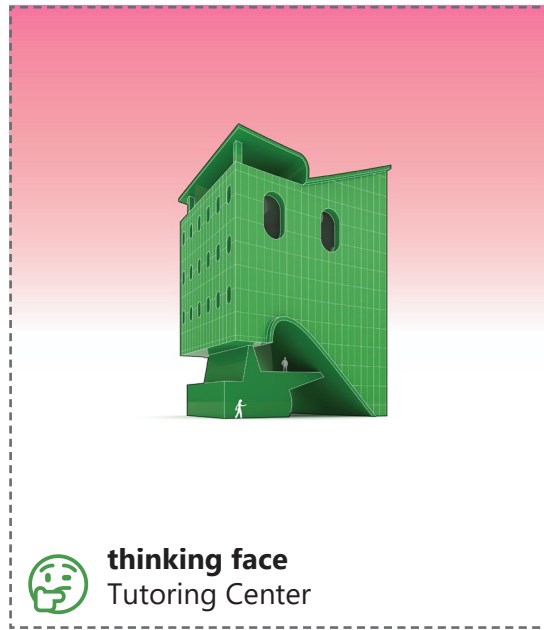
 **hugging face**
Ferry Terminal




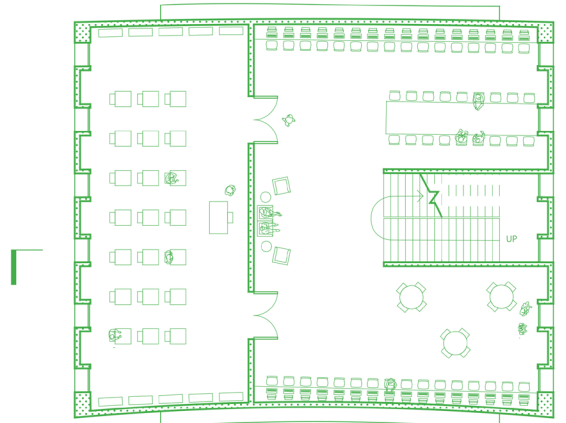
 **face with hand over mouth**
Teeth Whitening



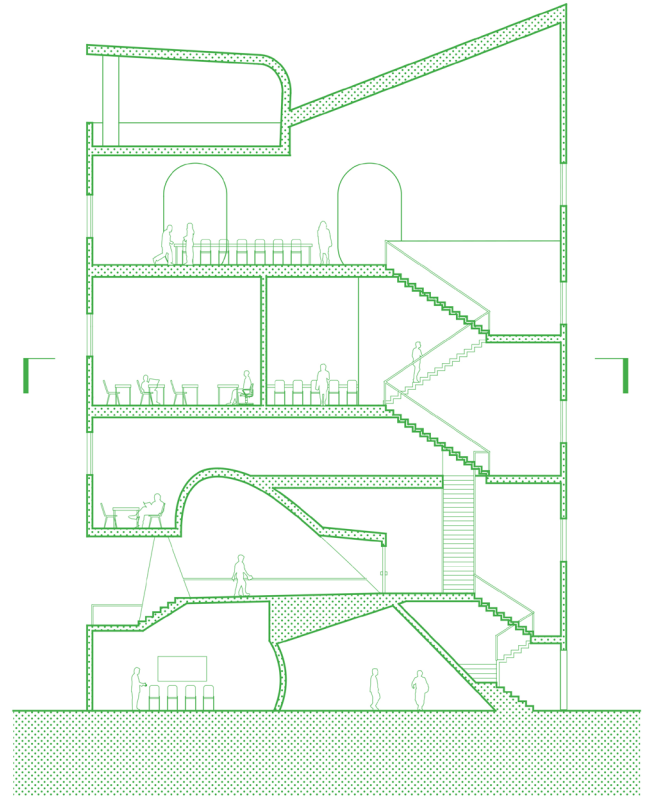
 **shushing face**
Library



 **thinking face**
Tutoring Center

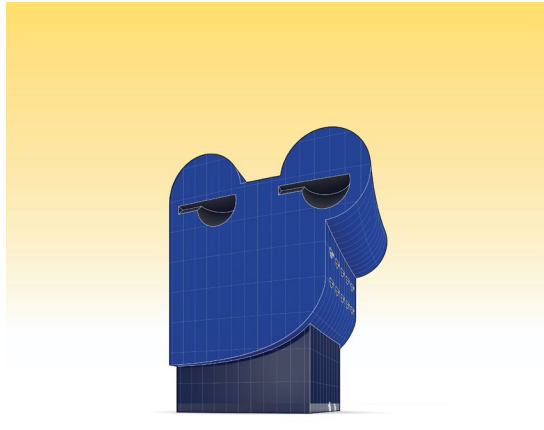


Plan

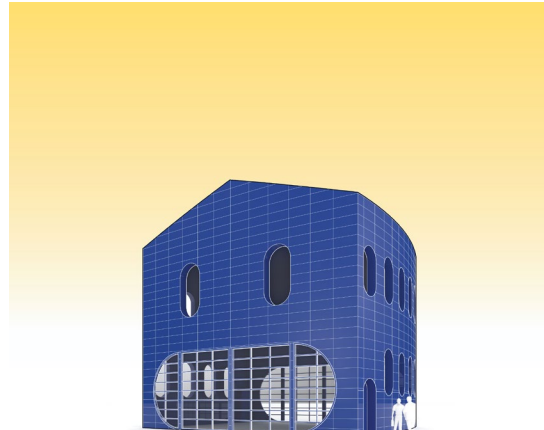


Section

neutral-skeptical




 **smirking face**
Film Studio



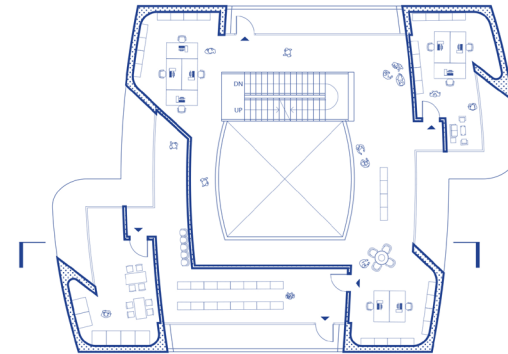
 **grimacing face**
Fire Station



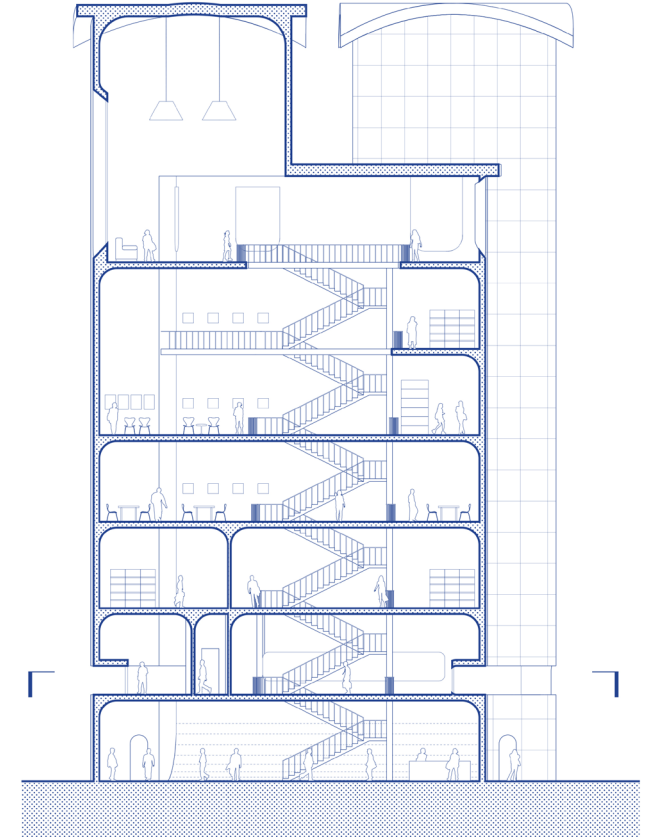
 **face with rolling eyes**
Art Gallery



 **face with raised eyebrow**
Police Station



Plan



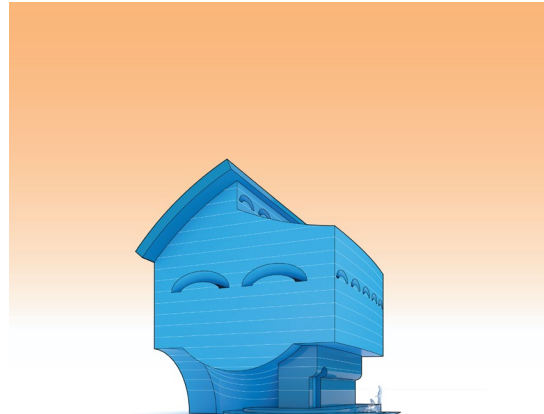
Section

face with raised eyebrow
Police Station 

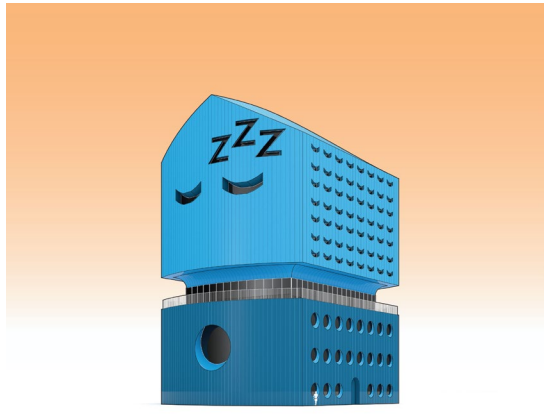
sleepy




 **relieved face**
Spa



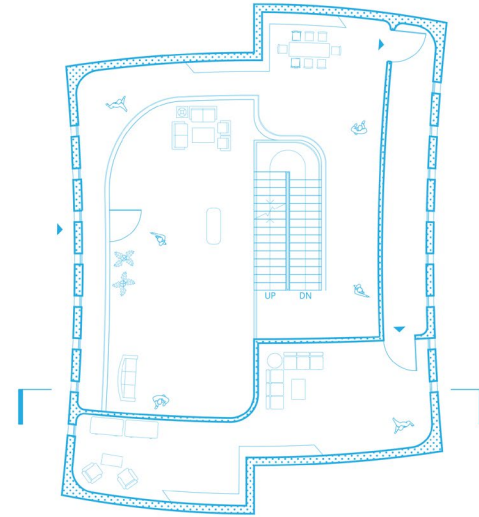
 **drooling face**
Baby Food Store



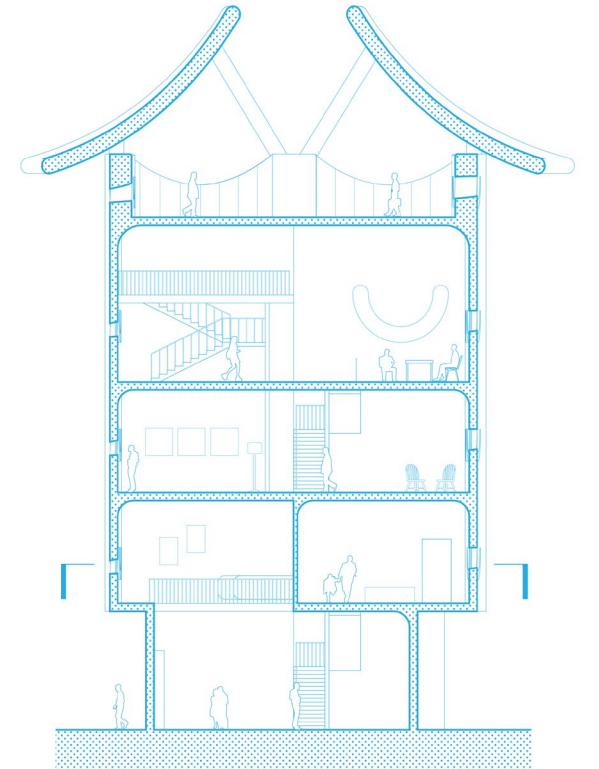
 **sleeping face**
Hotel



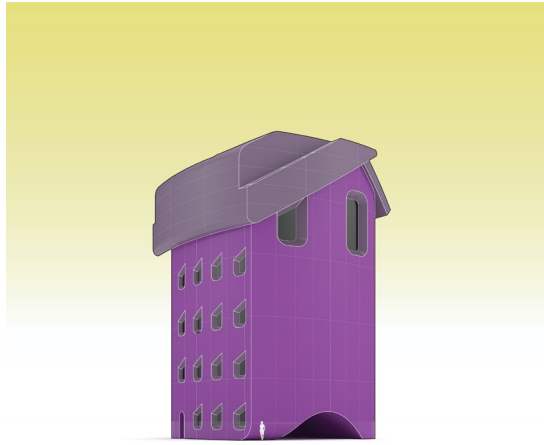
 **pensive face**
Funeral Home




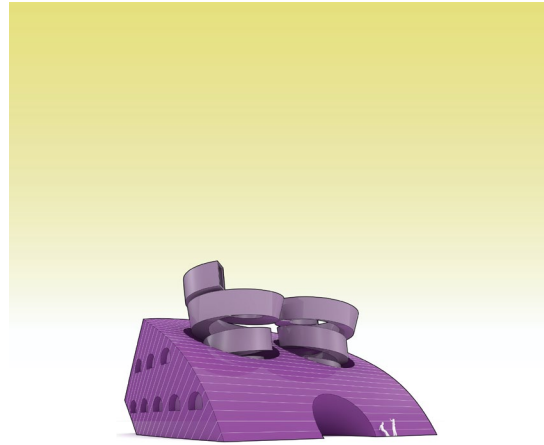
Plan



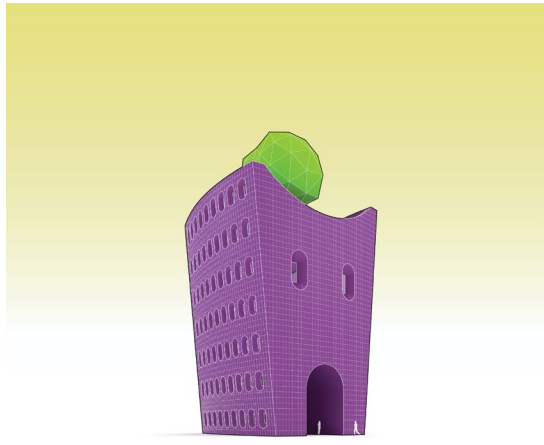
Section




 **face with head-bandage**
Physical Therapy




 **dizzy face**
Club

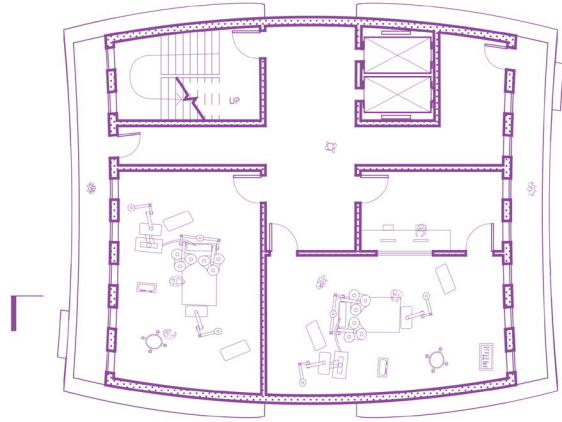


 **exploding head**
Laboratory

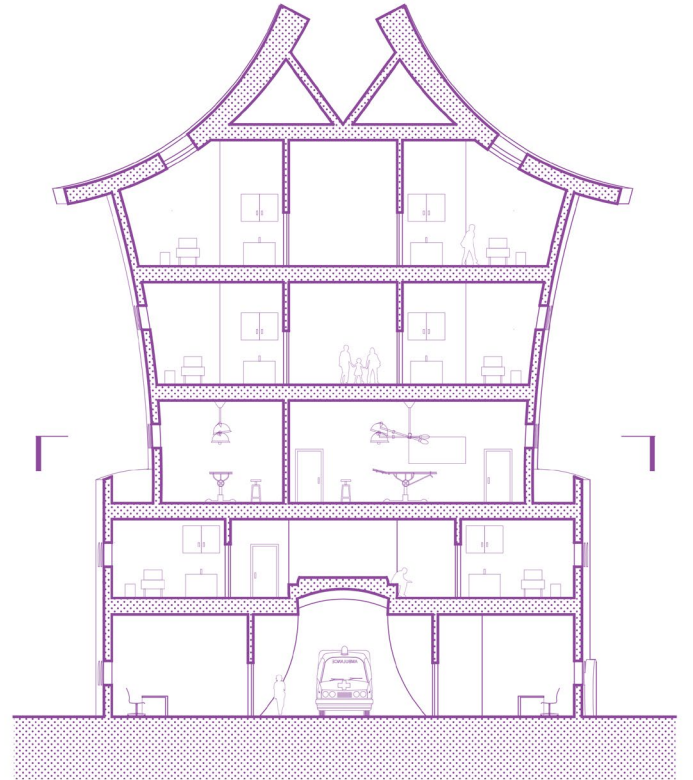


 **nauseated face**
Emergency Care

nauseated face
Emergency Care 

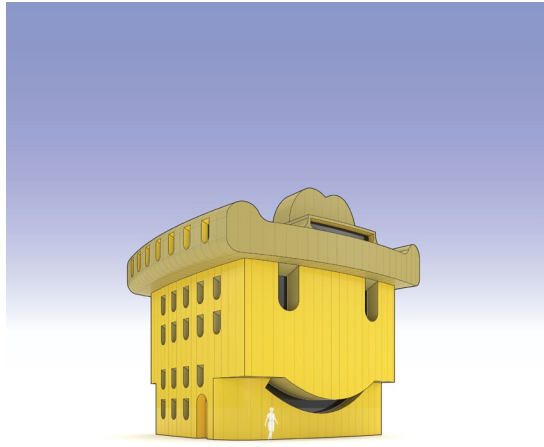


Plan

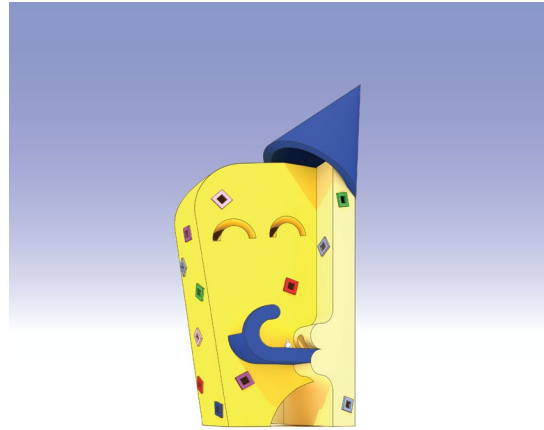


Section

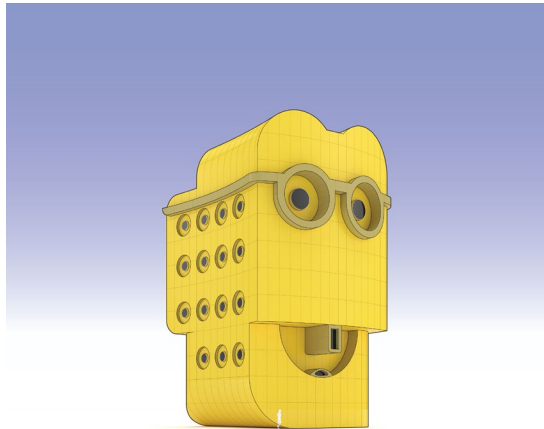
accessories




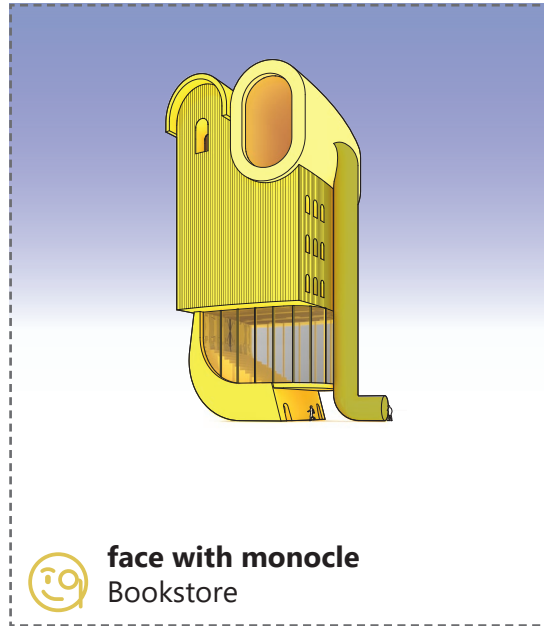
 **cowboy hat face**
Saloon




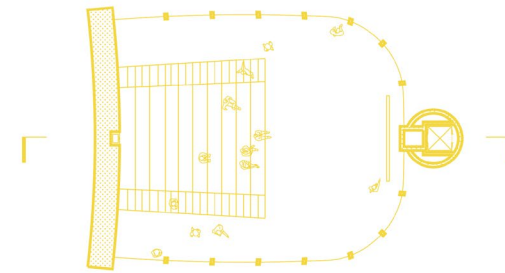
 **partying face**
Party Store



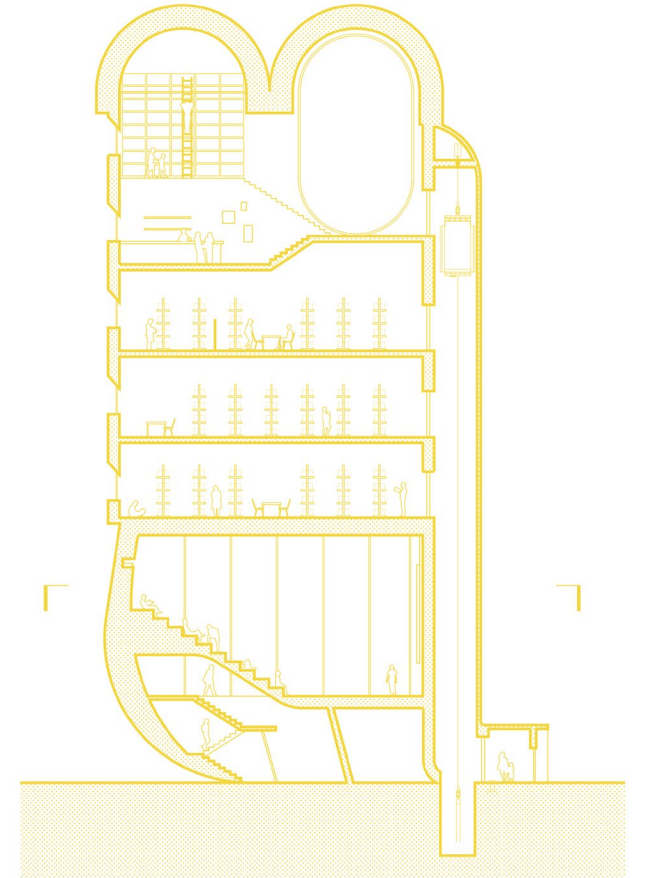
 **nerd face**
Optometrist



 **face with monocle**
Bookstore

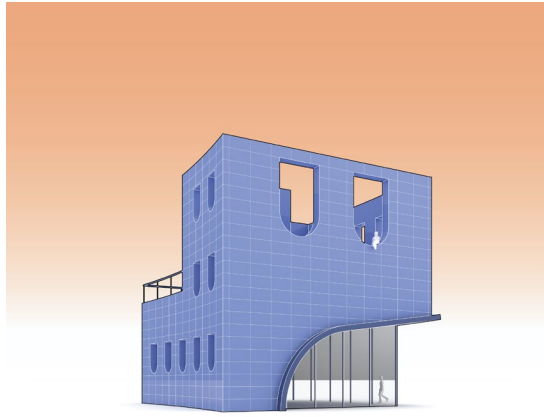



Plan

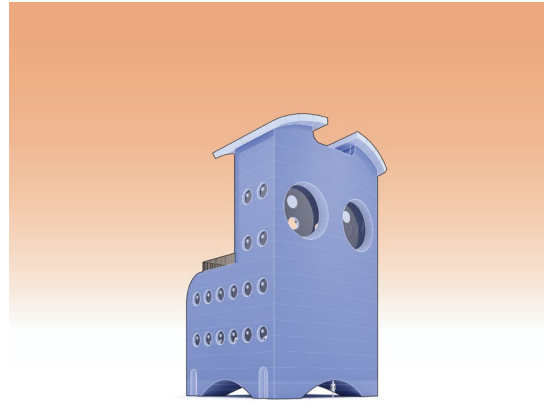



Section

concerned



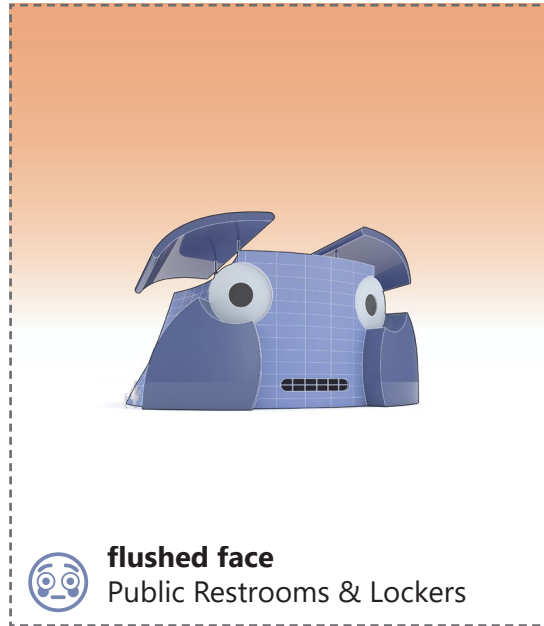
 **confused face**
Information Center




 **pleading face**
Animal Shelter

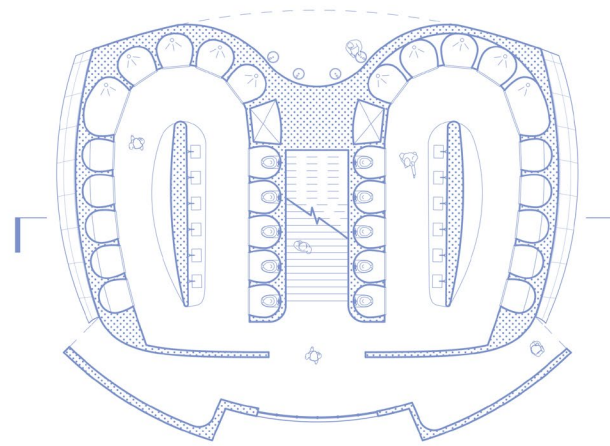


 **fearful face**
Financial Assistant

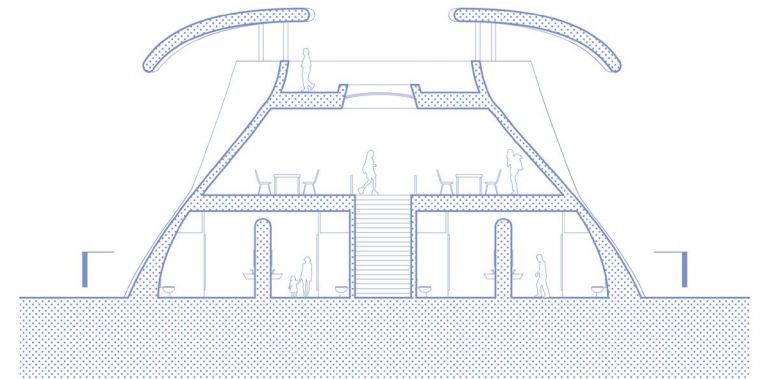


 **flushed face**
Public Restrooms & Lockers

flushed face 
Public Restrooms & Lockers

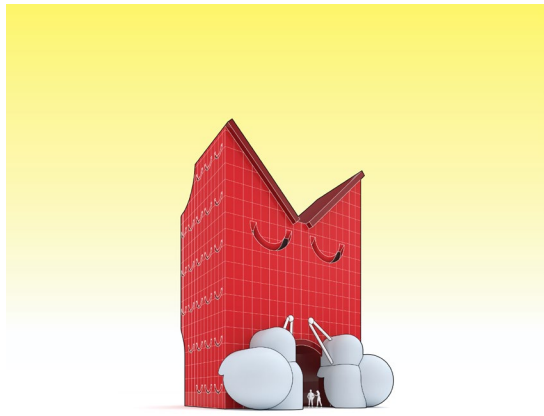


Plan

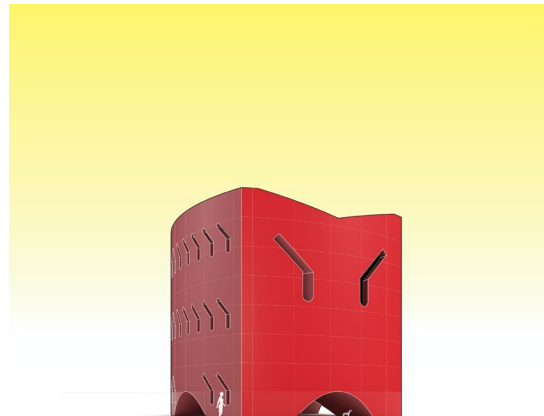


Section

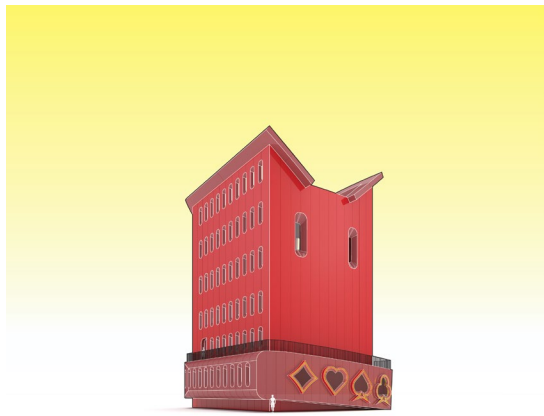
negative



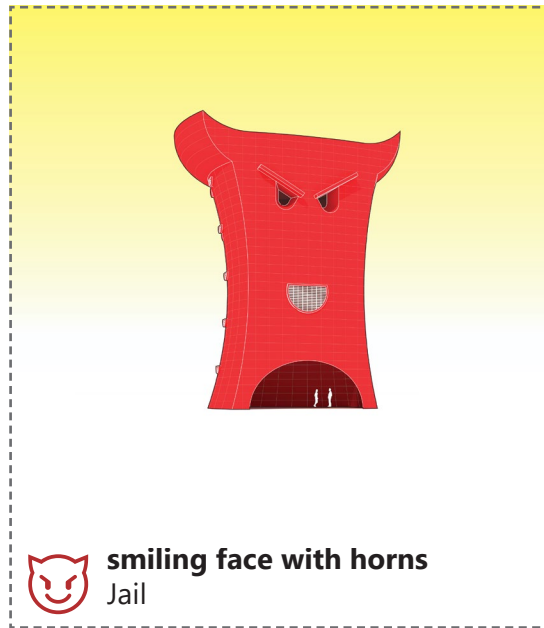
 **face with steam from nose**
Anger Management



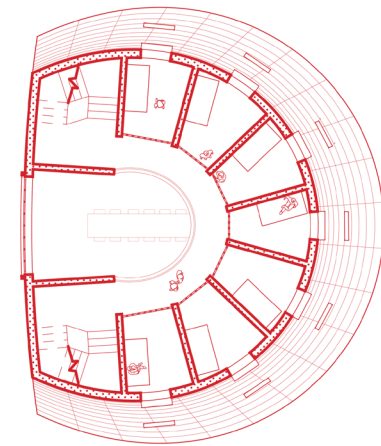
 **angry face**
Dog Obedience School



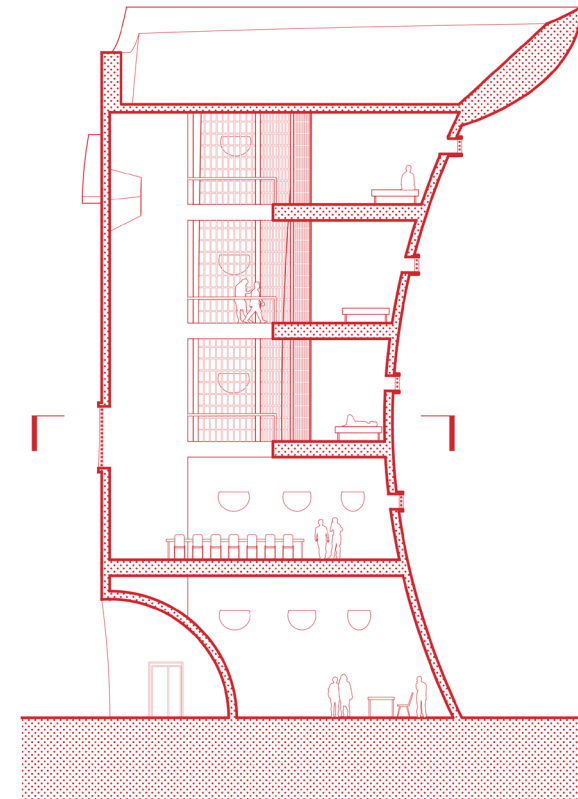
 **face with symbols on mouth**
Poker Game Hall



 **smiling face with horns**
Jail



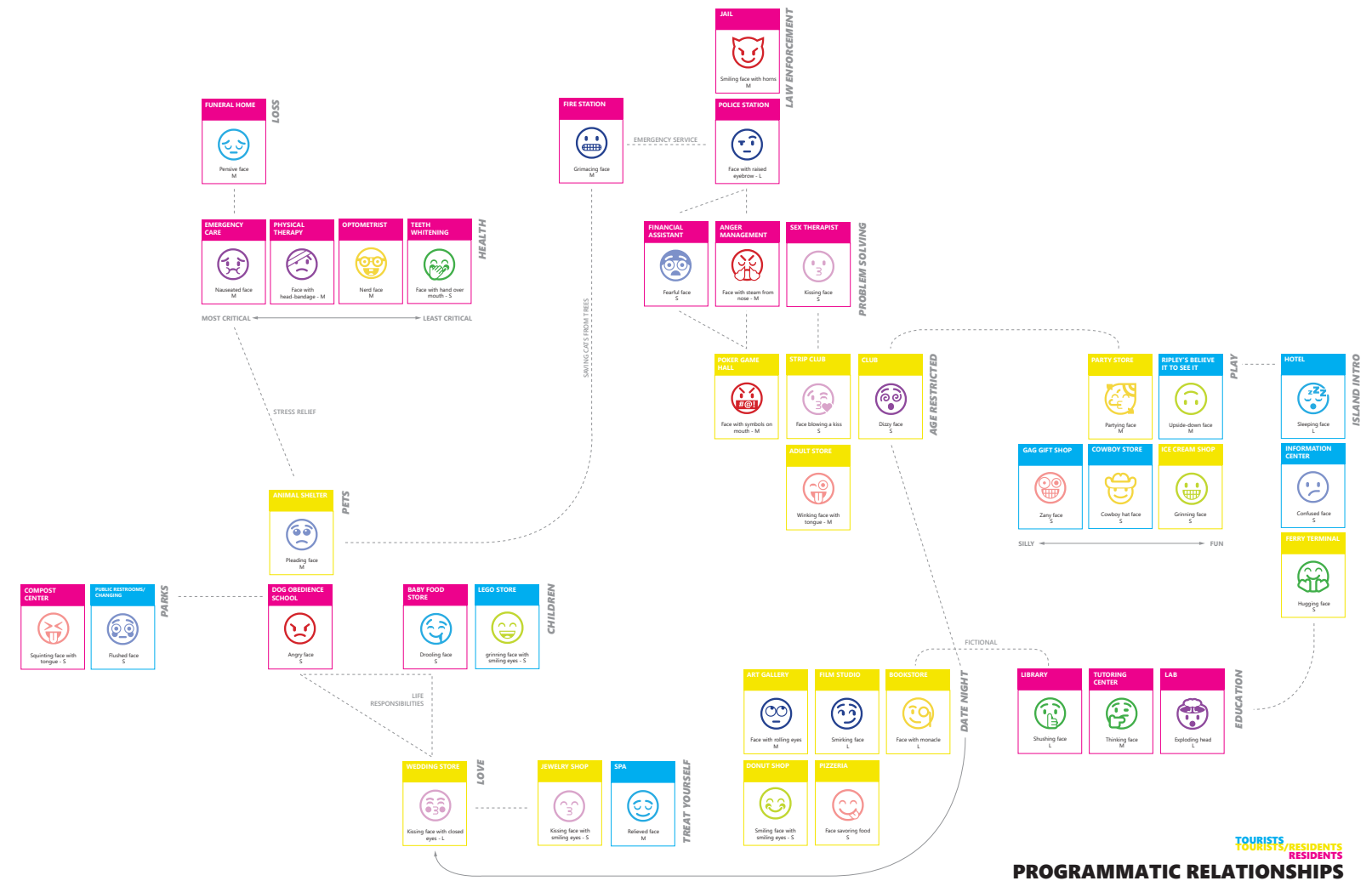
Plan



Section

smiling face with horns
Jail 

PROGRAMMATIC RELATIONSHIPS



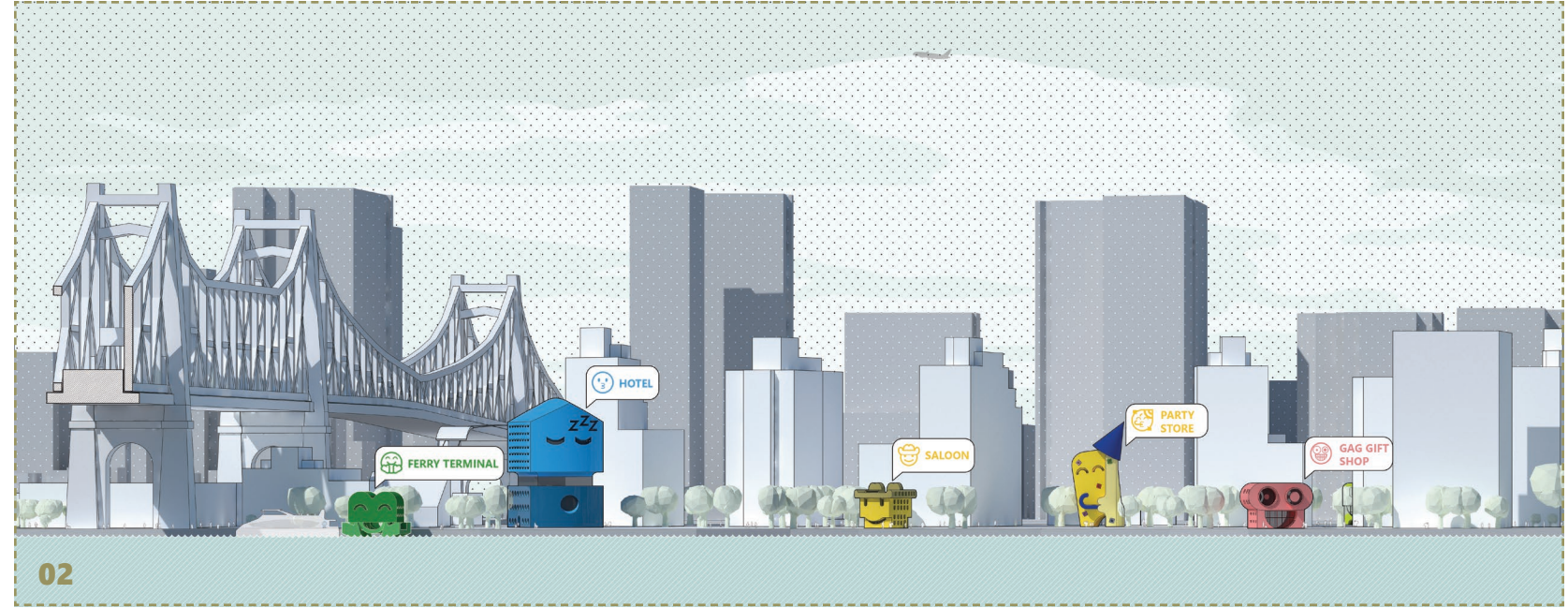
TESTING GROUND ROOSEVELT ISLAND

TO BALANCE THE TONGUE-AND-CHEEK QUALITY OF THE PROJECT, A PHYSICAL CONTEXT IS NEEDED TO CREATE FRICTION AND ENHANCE THE COMPREHENSION OF THE PROJECT. THE FOUR SITE CRITERIA ARE: **VISIBILITY, PUBLIC ACCESSIBILITY, AND WALKABILITY**. WHILE EMOTICONSTRUCTS CAN BECOME PART OF A NARRATIVE OF ANY GIVEN CONTEXT, WE CHOSE ROOSEVELT ISLAND, LOCATED ON THE EAST RIVER BETWEEN MANHATTAN AND QUEENS IN NEW YORK, AS A SITE. USING ROOSEVELT ISLAND AS A **TESTING GROUND** FOR THESE EMOTICONSTRUCTS ALLOWS FOR A UNIFORM SENSE OF IDENTITY TO BE GIVEN TO THE ISLAND. THE COMMUNICATIVE ASPECTS OF THE CANDY-COLORED BUILDINGS WILL ENCOURAGE TOURISM AND INCREASED ACTIVITY TO THE SITE. THE ISLAND IS 2 MILES LONG AND ONLY 800 FEET WIDE.



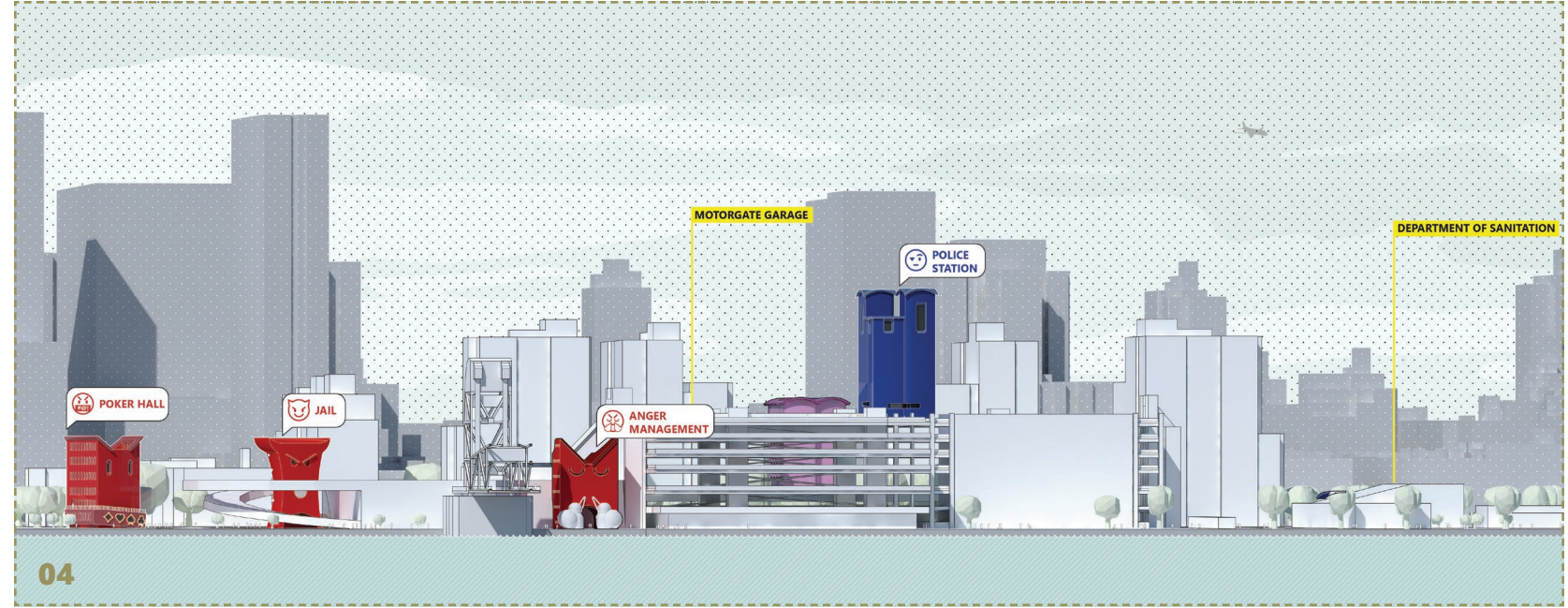
EMOTICONSTRUCTS WERE PLACED IN NETWORKS ON ROOSEVELT ISLAND TO RELATE TO EITHER THE EXISTING CONTEXT OR EACH OTHER. THE PLACEMENT OF ALL THE EMOTICONSTRUCTS ARE AREAS OF GREATER VISIBILITY FROM EITHER SIDE OF THE ISLAND.

ALTHOUGH MOST OF THE EMOTICONSTRUCTS SIT ON THE GROUND PLANE TO ALLOW PUBLIC ACCESS, THERE ARE A FEW THAT ARE SITUATED ON TOP OF EXISTING BUILDINGS BECAUSE OF THEIR SPECIFIC ARCHITECTURAL PROGRAMS.



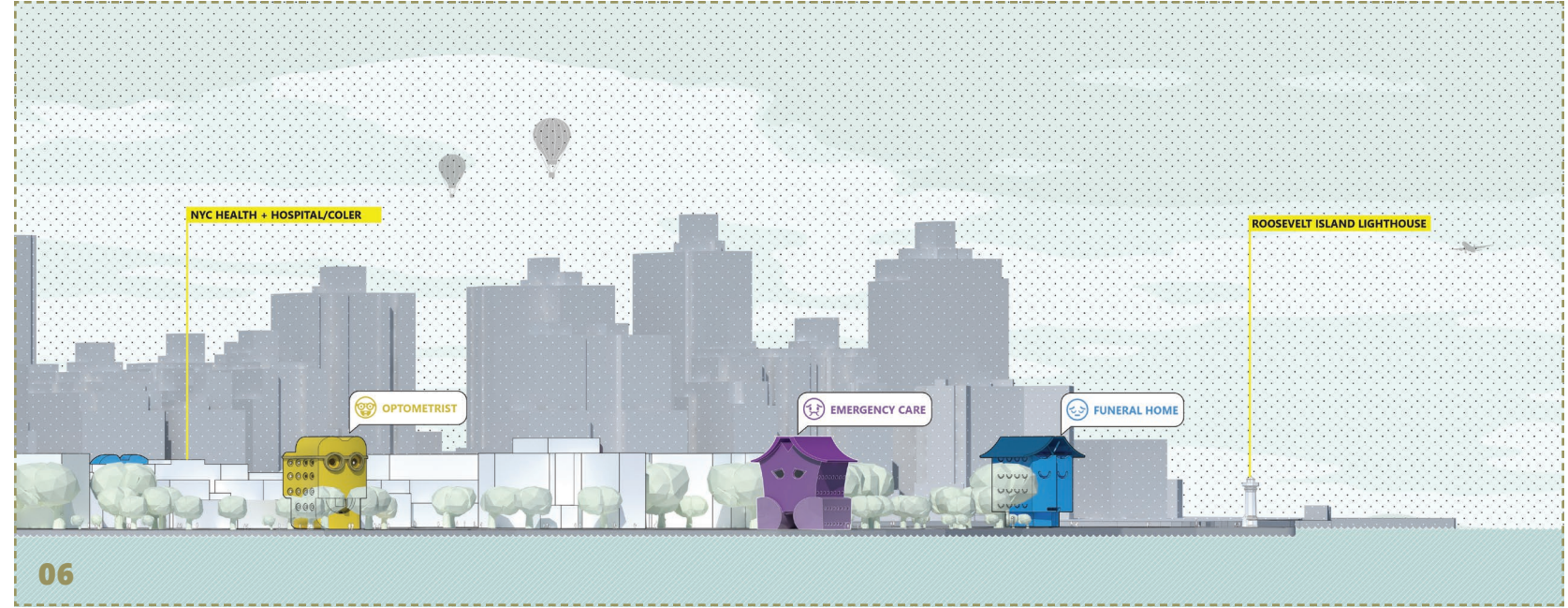
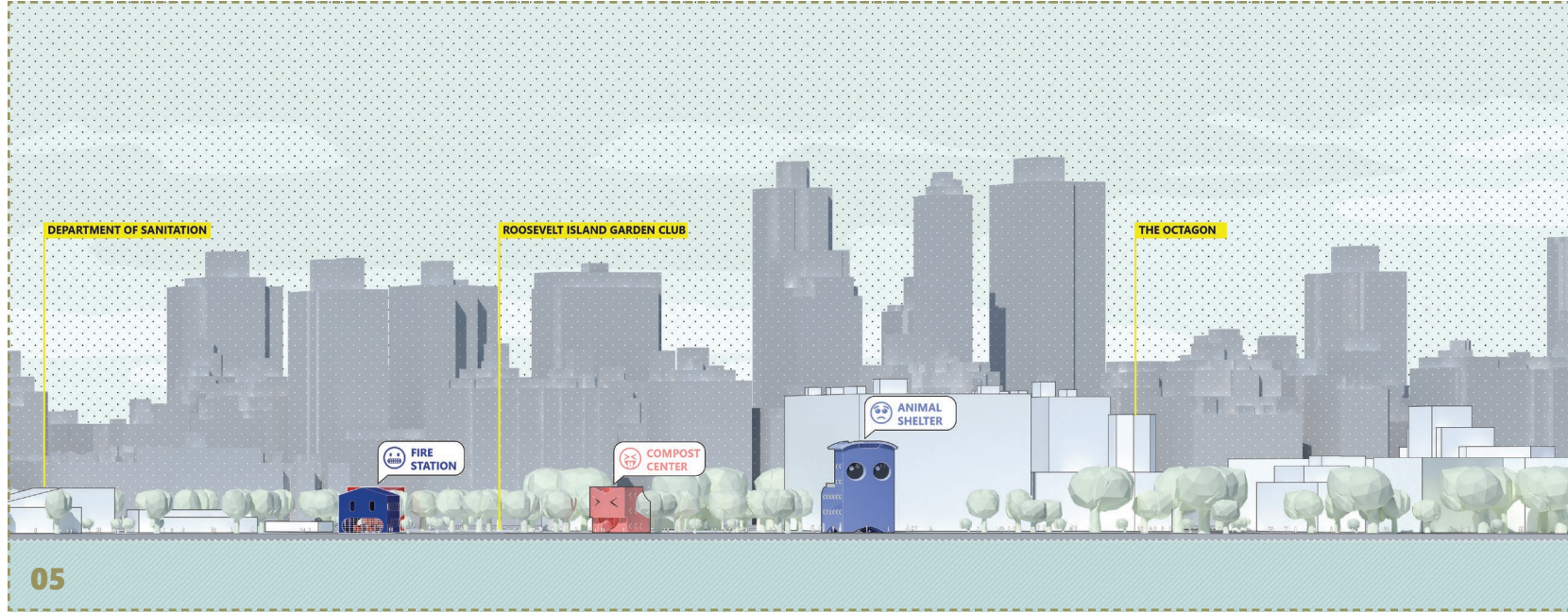
01 02

EAST ELEVATION



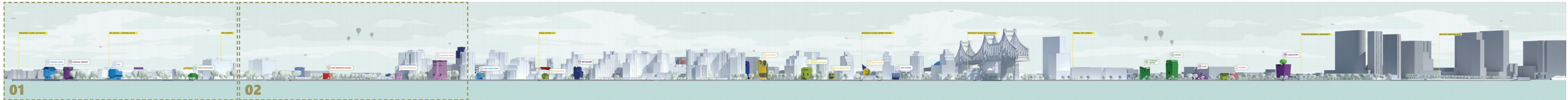
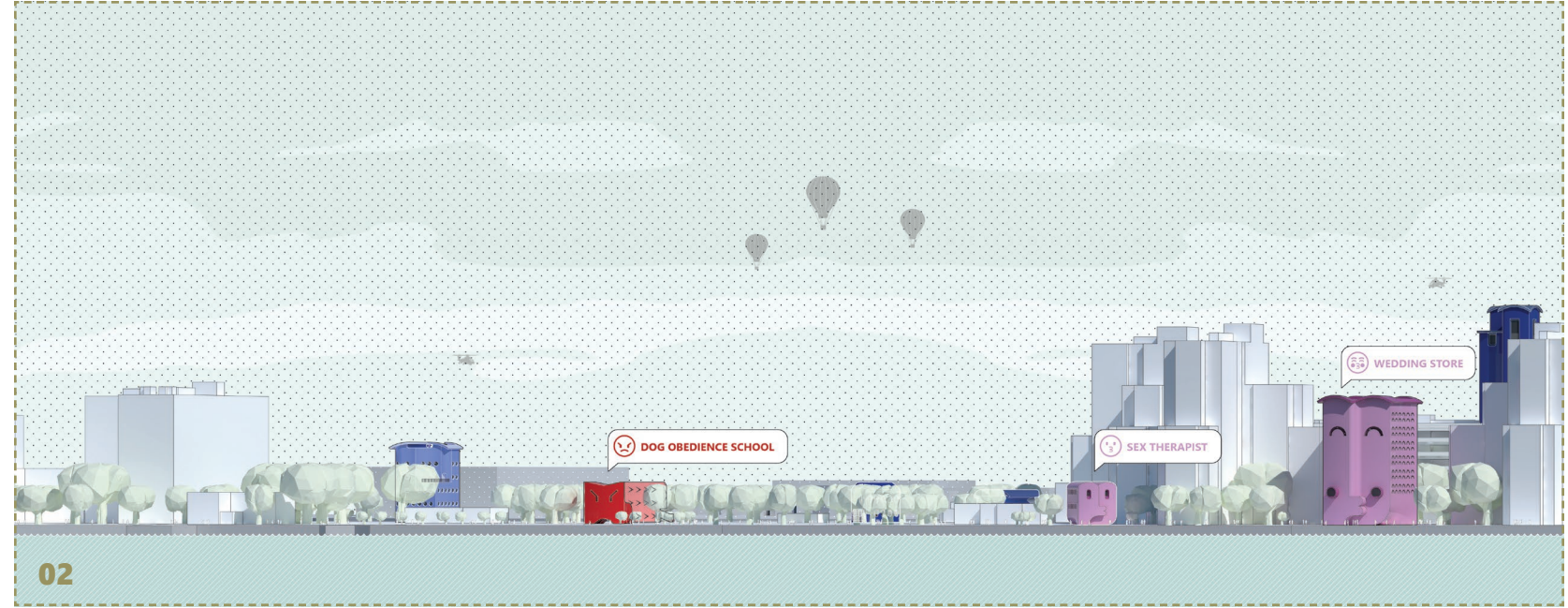
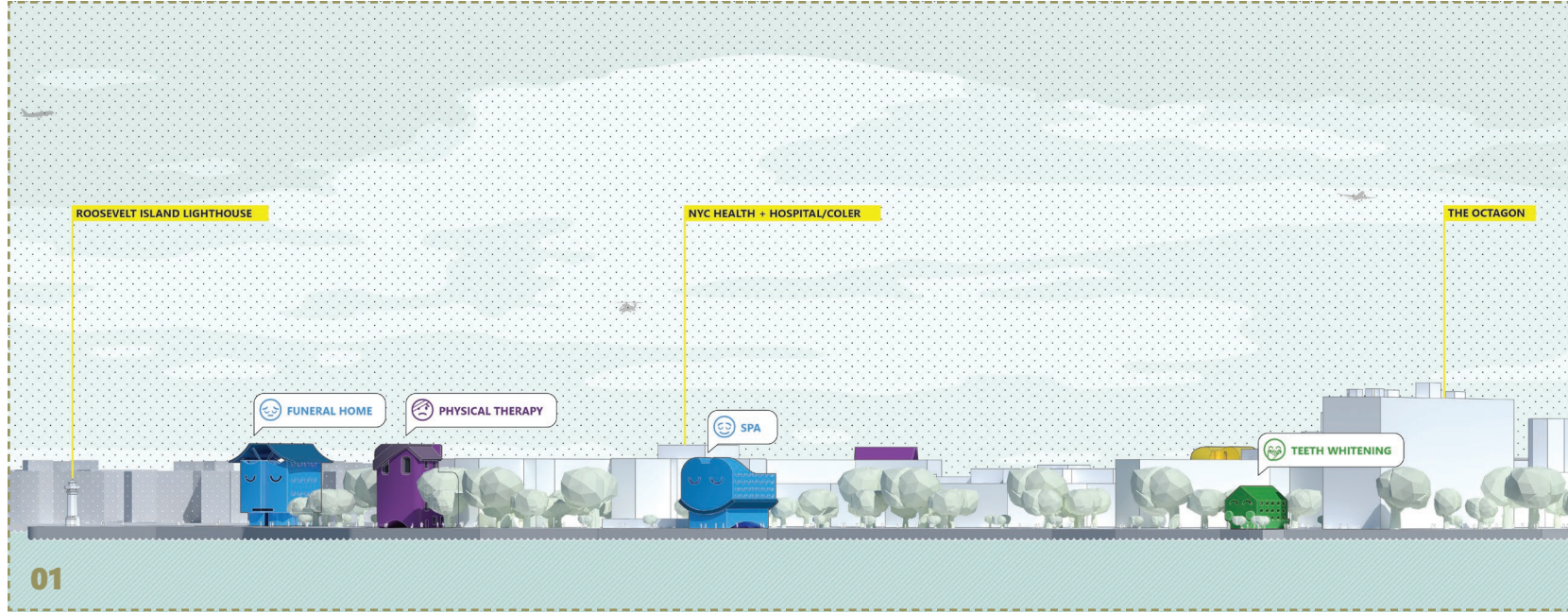
03 04

EAST ELEVATION



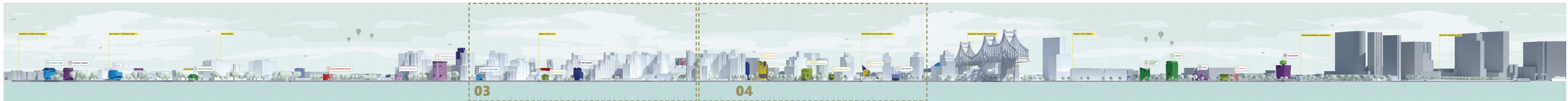
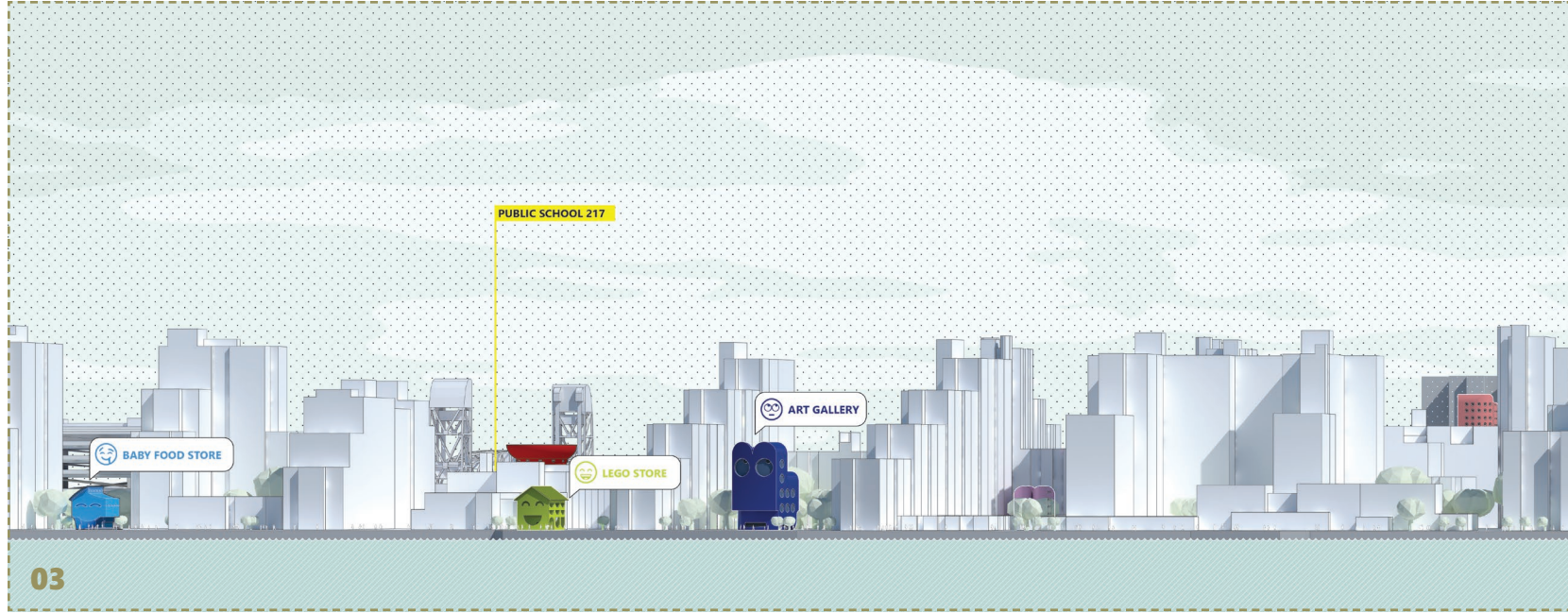
05 06

EAST ELEVATION



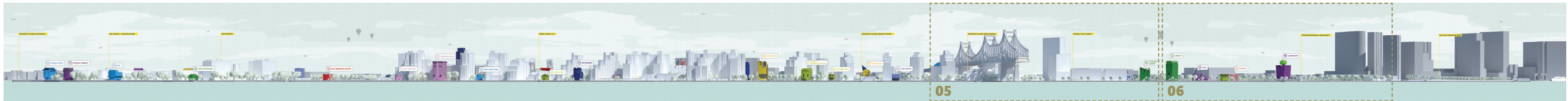
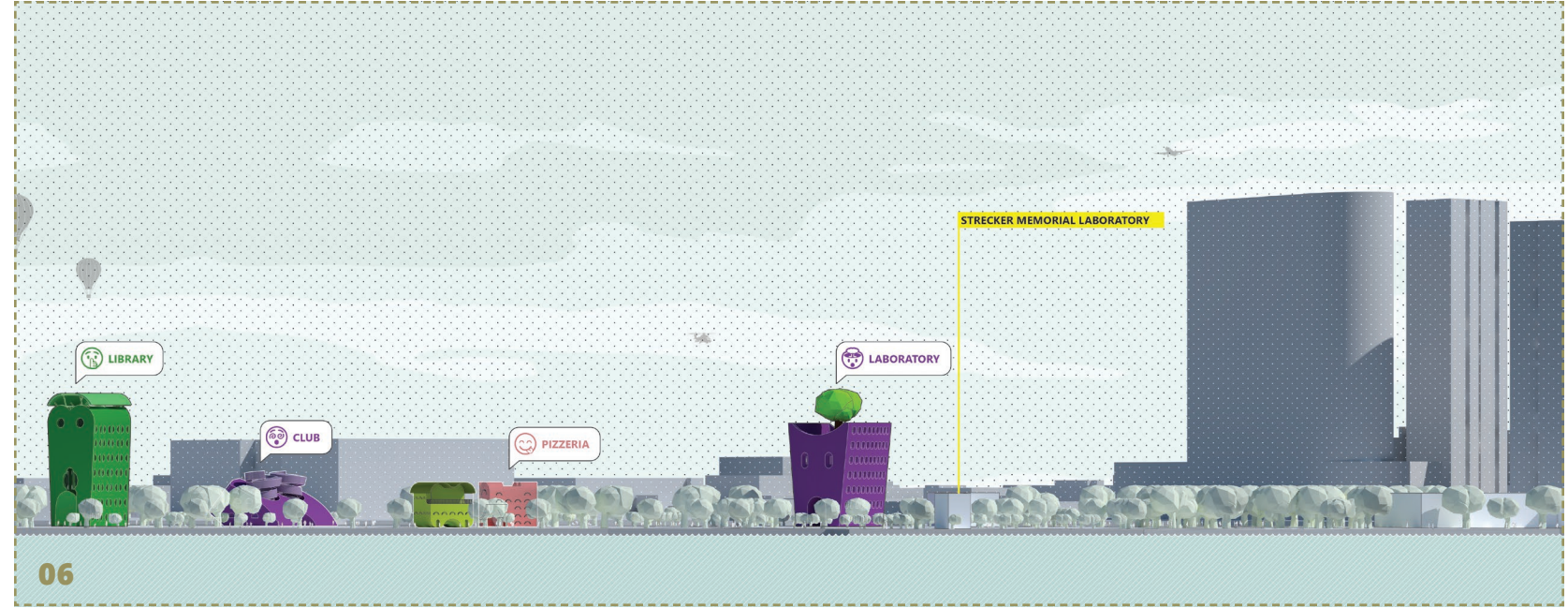
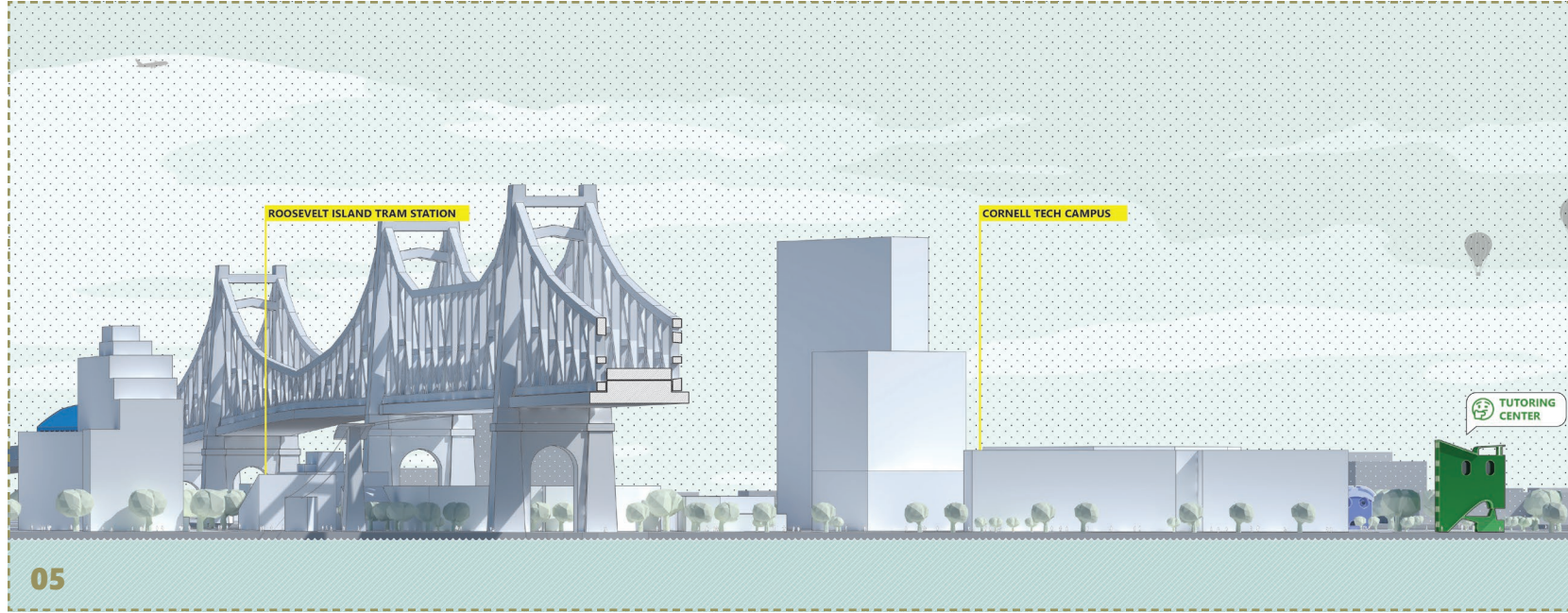
WEST ELEVATION

01 02



WEST ELEVATION

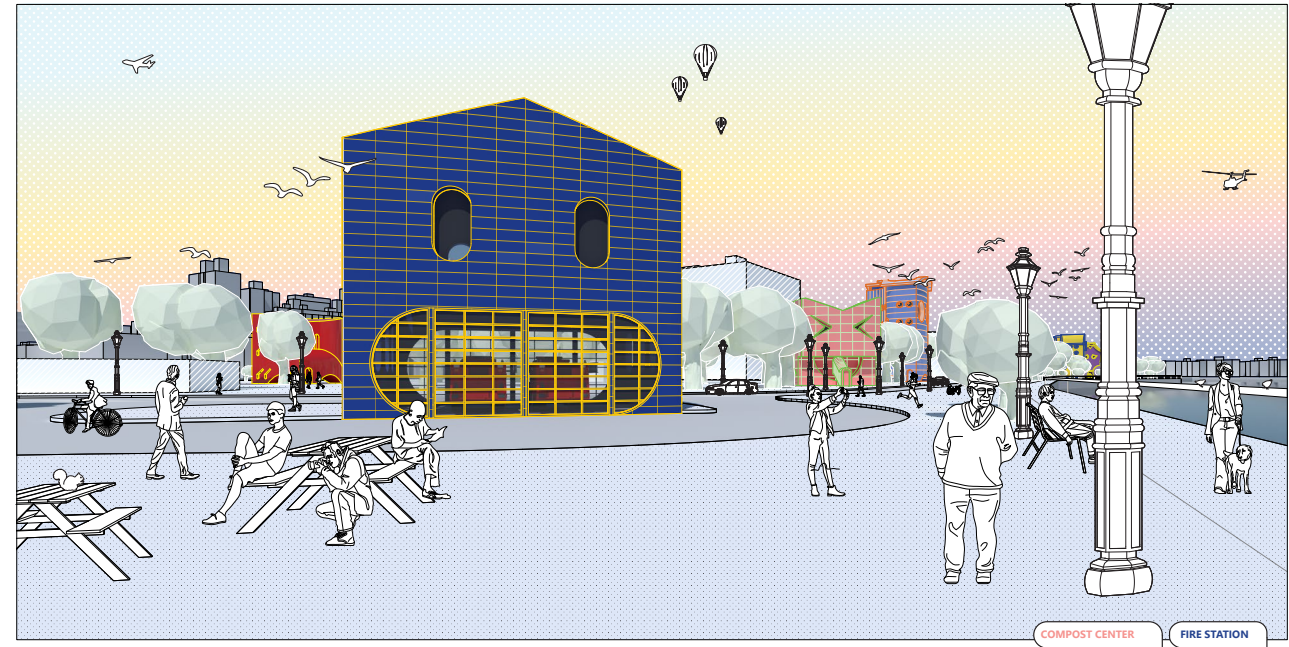
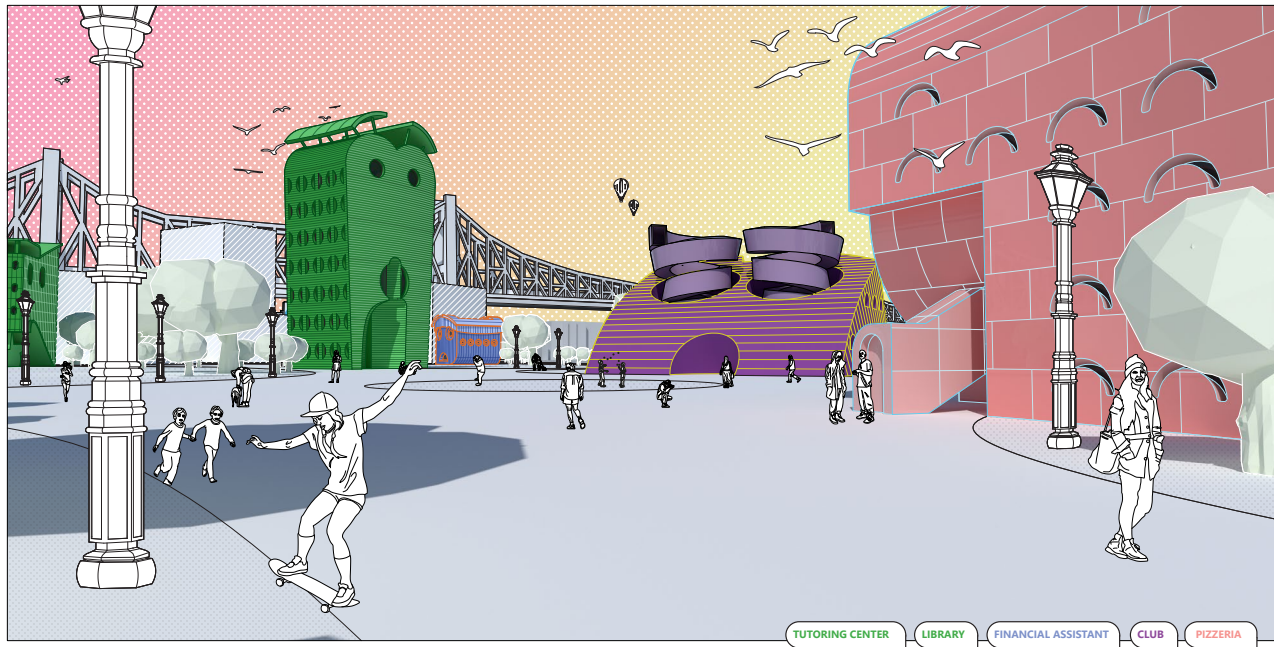
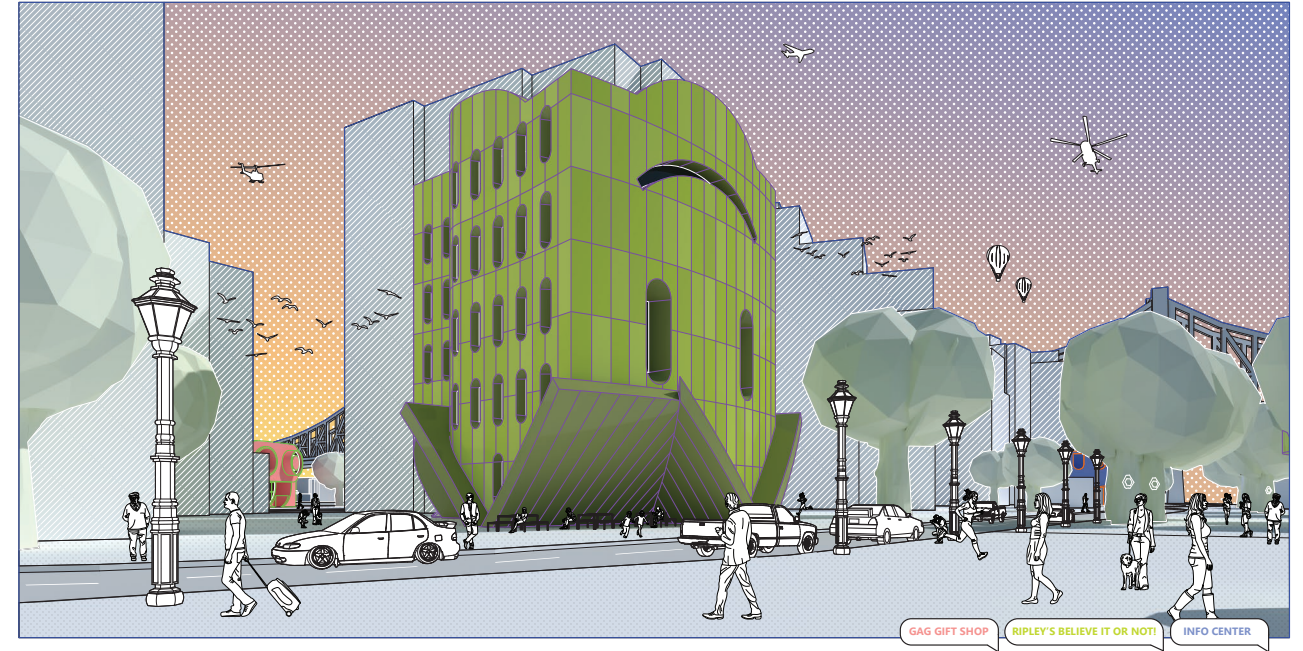
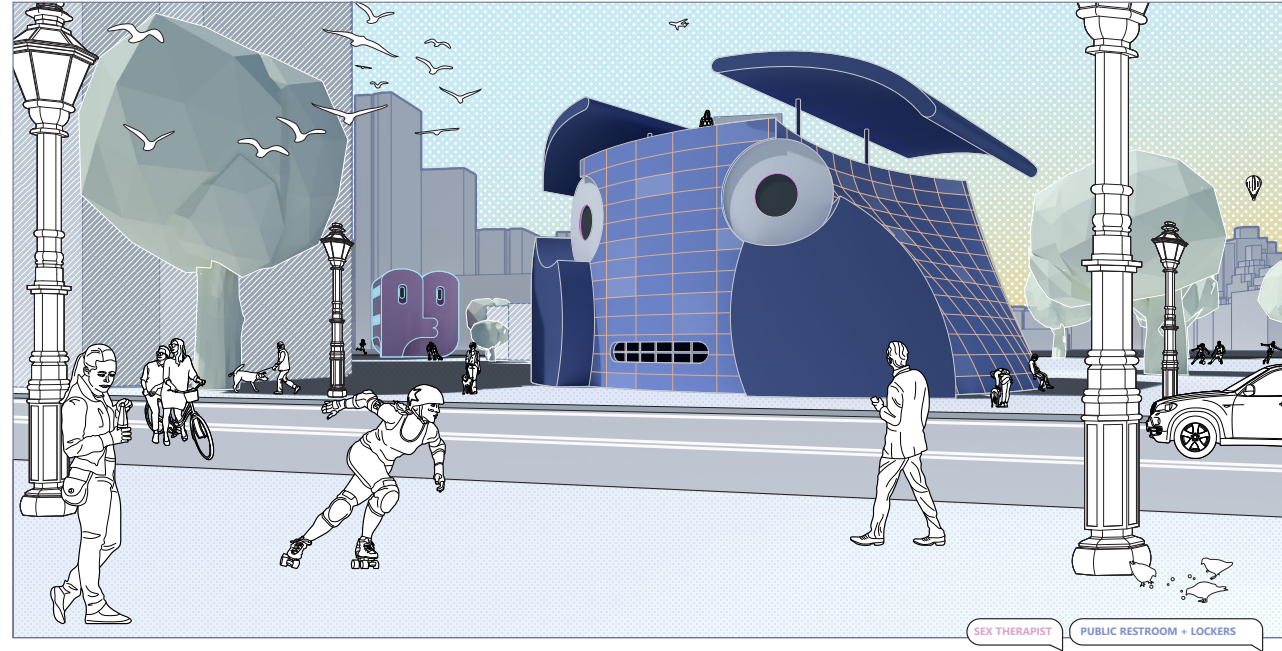
03 04



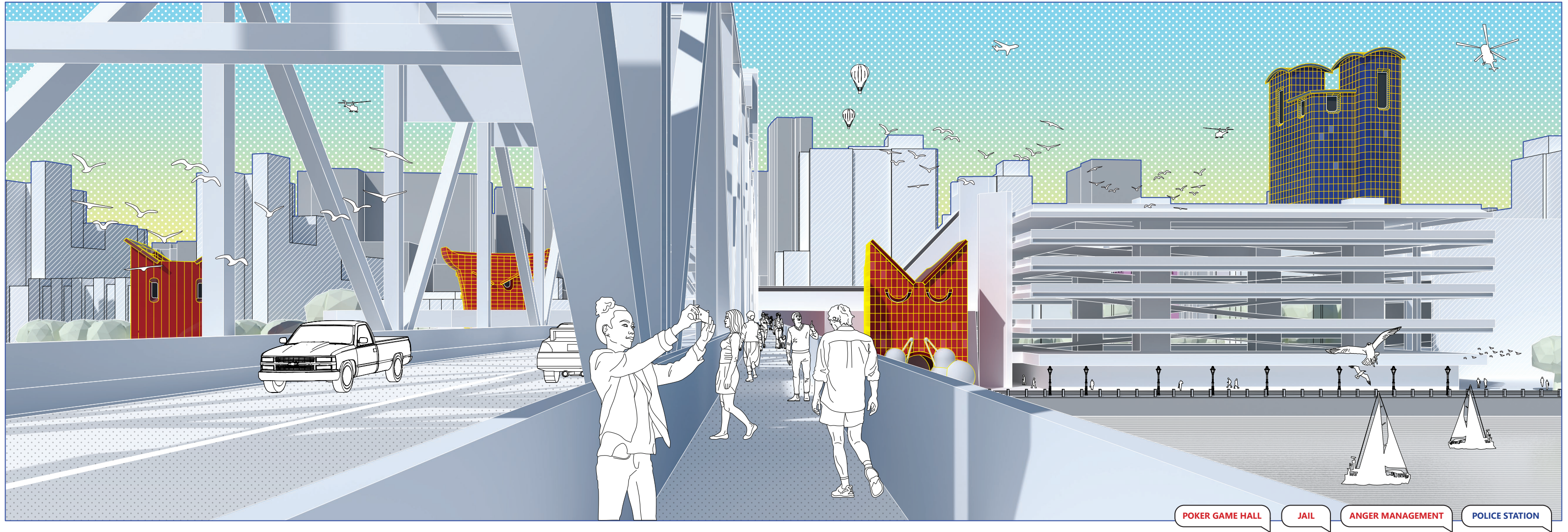
WEST ELEVATION

05 06

VIGNETTE:



CLOSE-UP



VIGNETTE:

RI BRIDGE

VIGNETTE:



ASTORIA FERRY



“If buildings are to speak, they must have freedom of speech. It seems to me that one of the most serious dangers to architecture is that people may just lose interest in it... If architecture is to survive in the human consciousness, then the things buildings can say, be they wistful or wise or powerful or gently or heretical or silly, have to respond to the wide range of human feelings.”

- Charles Moore

“And yet we see not the gratifying reflection of ourselves we had hoped for but another thing looking back at us, watching us, placing us.”

- K. Michael Hays on John Hejduk



BIBLIOGRAPHY

Altshuler, Joseph. "Animate Architecture: Twelve Reasons to Get in Character." *Log*, no. 33 (Winter 2015), 127-135.

Danesi, Marcel. "From cave drawings to emojis: Communication comes full circle," filmed October 27, 2016 at TEDxToronto, Toronto, ON, video, 17:51,

Danesi, Marcel. *The Semiotics of Emoji: The Rise of Visual Language in the Age of the Internet*. London: Bloomsbury, 2016.

Eco, Umberto. "Function and Sign: The Semiotics of Architecture." in *Rethinking Architecture: A Reader in Cultural Theory*, edited by Neil Leach, 173-195. New York : Routledge, 1997.

Elder, Alexis M. "What Words Can't Say: Emoji and Other Non-Verbal Elements of Technologically Mediated Communication." *Friendship, Robots, and Social Media: False Friends and Second Selves*. Routledge, 2018, pp. 178-193.

"Emoji Architecture." Pinterest. 2019. <https://www.pinterest.com/doriadonut/emoji-architecture/>

Evans, Vyvyan. *Emoji Code: The Linguistics Behind Smiley Faces and Scaredy Cats*. New York, NY: Picador, 2017.

"Face House in Kyoto, Japan by Kazumasa Yamashita." *Architectural Review*, June 23, 2015. June 23, 2015. doi: 10.11129/detail.9783955531676.110.

Galloway, Paul. "The Original Emoji Set Has Been Added to the Museum of Modern Art's Collection." MoMA. October 26, 2016.

Grant, Joanna. "Emoji: Image, Meaning, Form." *Paprika!*, October 11, 2018.

Hsieh, Lisa. "The Architecture Utters Nothing." *Log*, no. 35 (Fall 2015), 60-68.

Jacobs, Sam. "The Communicative Mode of Architecture." *Mas Context*. Summer 2012. accessed December 15, 2018.

Jencks, Charles. *The New Paradigm in Architecture: The Language of Postmodernism*. 83-86. New Haven: Yale University Press, 2002.

Lucas, Gavin. *The Story of Emoji*. Munich: Prestel, 2016.

Mehrabian, Albert. *Nonverbal Communication*. Chicago, IL: Aldine-Atherton, 1972.

Messaris, Paul. *Visual "Literacy": Image, Mind, and Reality*. Boulder, CO: Westview Press, 2009.

Miller, Kyle. "Nine Lies; Half Truth" *Offramp 9: Lies*, (Spring/Summer 2015).

Microsoft Corporation (2015). *Microsoft Attention Spans Research Report*. Canada: Microsoft Corporation.

Owen Churches, Mike Nicholls, Myra Thiessen, Mark Kohler & Hannah Keage (2014). "Emoticons in Mind: An Event-Related Potential Study." *Social Neuroscience*, 9:2, 196-202.

Pinker, Steven. "Linguistics as a Window to Understanding the Brain," released September, 2011 at The Floating University, video, 50:00.

Sedlock, Julia. "Creature Comforts: Toward a Duckered Shed." March 2015. 103rd ACSA Annual Meeting Proceedings, The Expanding Periphery and the Migrating Center.

Seiter, Courtney, "The Psychology of Emojis," *The Next Web*, June 23, 2015.

Shamiyeh, Michael, and DOM Research Laboratory. *What People Want: Populism in Architecture and Design*. Basel: Birkhäuser, 2005.

Shuji, Takashina. "Emoji, Moji-e, and Play." In *The Japanese Sense of Beauty*. Translated by Matt Treyvaud. Tokyo: Japan Publishing Industry Foundation for Culture, 2018. 56-61.

Somol, Robert E. "Green Dots 101." *Hunch* 7, no. 11 (Winter 2006/2007), 28-37.

Sonnby-Borgström, Marianne, "Automatic Mimicry Reactions as Related to Differences in Emotional Empathy." *Scandinavian Journal of Psychology*, June 28, 2008.

Stevens, Laura J., Thomas Kuczek, John R. Burgess, Elizabeth Hurt, and L. Eugene Arnold. "Dietary Sensitivities and ADHD Symptoms: Thirty-Five Years of Research." *Clinical Pediatrics* 50, no. 4 (April 2011): 279-93.

Stott, Rory. "In Defense of the Emoji Building and Architecture Being Fun, dSometimes." *ArchDaily*, July 27, 2017.

Unicode. "Full Emoji List, v12.0." Last updated April 22, 2019.

Venturi, Robert, Denise Scott Brown, and Steven Izenour. *Learning from Las Vegas*. Cambridge, MA: MIT Press, 1988.

Wodhouse, Andrew. "Pareidolia: Characterising Facial Anthropomorphism and its Implication for Product Design." *Journal of Design Research*, vol. 16, no. 2, 2018. 83-98.

"Word of the Year 2015." Oxford Dictionaries, English. 2015.

"World : Kyoto Face." 1975. *Architectural Review* 158 (December): 381.

Xu, Bing. *Book from the Ground: From Point to Point*. Cambridge, MA: MIT Press, 2014.

IRVING SHEN

**DORIA PONCZEK
MILLER**

