Architecture Thesis Prep   School of Architecture Dissertations and
                                                                            Theses

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Emoji Disorder

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EMOJI DISORDER

DORIA MILLER & IRVING SHEN

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CONTENTS

"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, "Emoji: Image, Meaning, Form"
in Duck, Duck, Shed on *Paprika!*

01. STATEMENT

The introduction of emoji to language creates a universal form of communication through expression. The thesis posits that with the contemporary context of a rising digital and visual language, the elastic architectural design language has the capability to be updated. The updated design language is translated from the existing context of emoji and reflects its pragmatics and characteristics. The duck, based on form, and the decorated shed, based on signage, are no longer adequate to project meaning on architecture. The symbolic language of emojis calls for a new model: *the duckerated shed*. This thesis will use the house typology as a testing ground to test this new language.

02. BACKGROUND
LANGUAGE
PAREIDOLIA
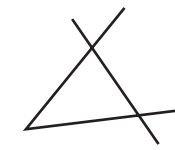
02. BACKGROUND
LANGUAGE

The progression of language has moved from symbolic to alphabet to emoji. The contemporary language includes both the pictogram and the alphabet. Both are incongruent but one has the ability to compliment the other.
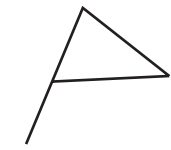
Egyptian
3000 BC

Sinai
1850 BC

Phonecian Aleph
1200 BC

Greek Alpha
600 BC

Roman A
114 AD

$A \neq$ 🐮

Contemporary
2018 AD

How **Language** Works[3]

Grammar
Rules

Phonology
Sounds

Semantics
Meaning

Pragmatics
Use

How **Emoji** Language Works

Grammar
Rules

~~**Phonology**~~
~~Sounds~~

~~**Semantic**~~ --------- **Semiotics**
~~Meaning~~   Meaning

Pragmatics
Use

In comparing verbal and emoji languages, phonology does not apply to emoji and the semantics, or implied meaning, from language becomes semiotics, the understanding of signs and symbols.

Denotation
Surface meaning
Architecture: form of inhabitation

Connotation ----------------- **Communication**
Deeper/hidden meaning
*Architecture: symbolic function, value, metaphors*

According to Umberto Eco, denotation is the surface meaning of architecture while connotation is the deeper meaning. Connotation becomes what communicates as emojis are applied to architecture.[4]

02. BACKGROUND
PAREIDOLIA

Applying emojis to architecture allows for a graphic immediacy of understanding. This quick reading of faces can be explored through pareidolia, which means the perception of apparently significant patterns or recognizable images, especially faces, in random or accidental arrangements of shapes and lines.

Image Archive - Pareidolia[5]
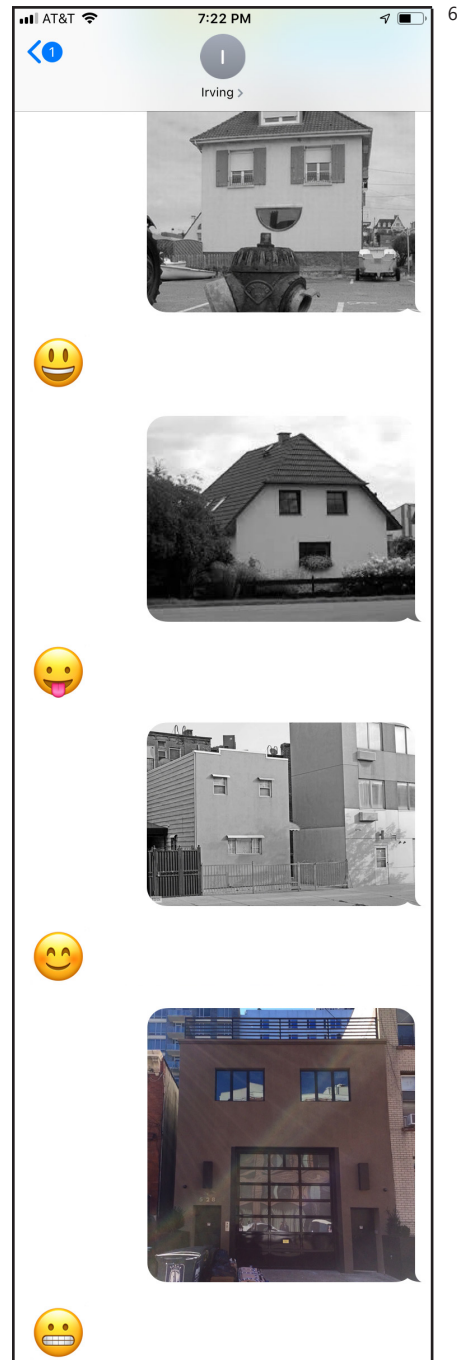
Pareidolia Meets the Digital Dialect

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.
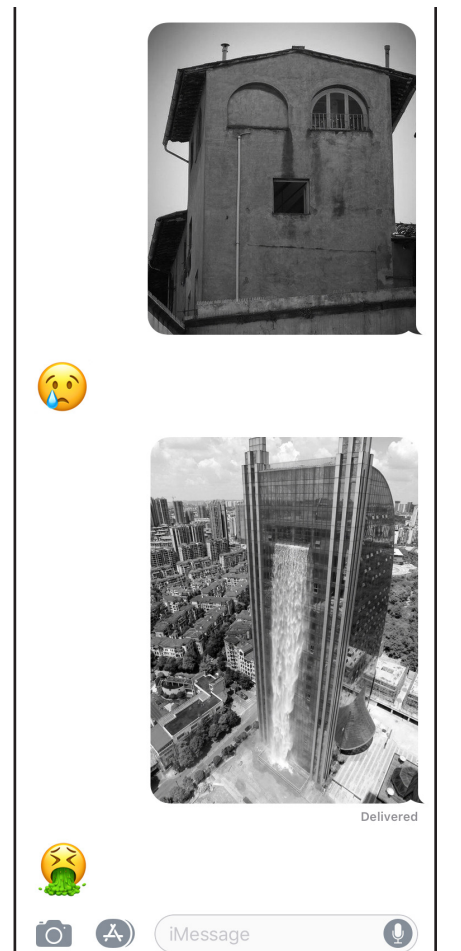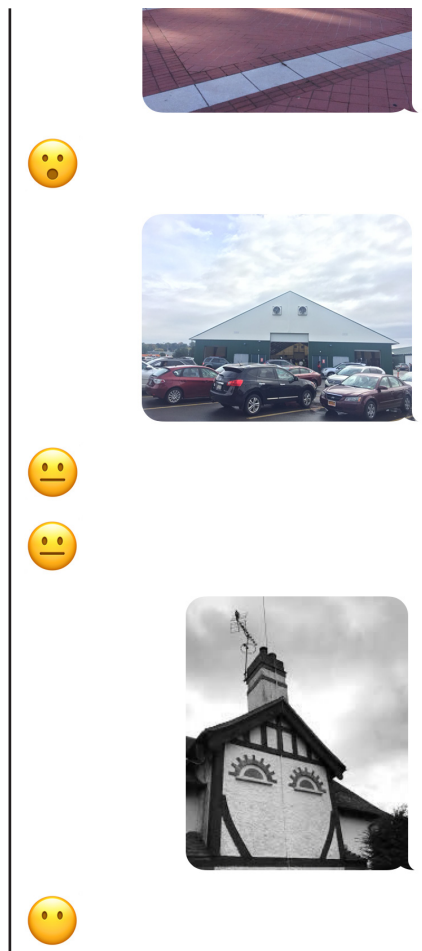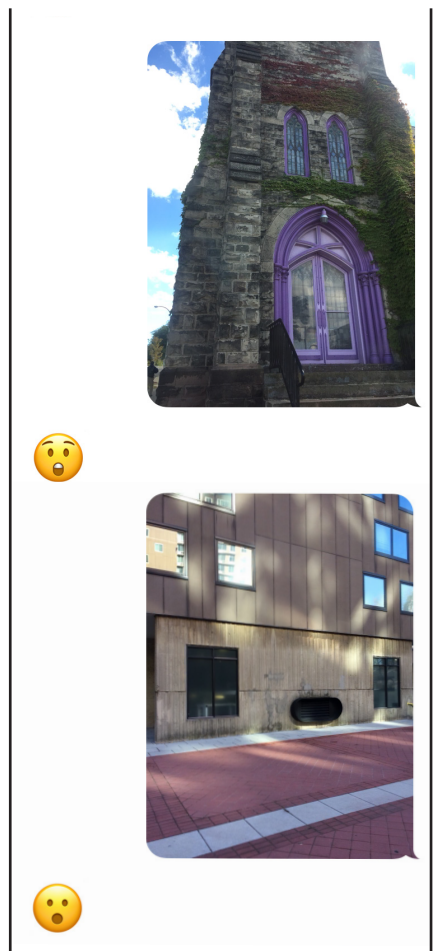
03. INVESTIGATIONS
EMOJI
PAREIDOLIA ANALYSIS
BUILDING BLOCKS
KIT OF PARTS

03. INVESTIGATIONS
EMOJI

A deconstruction and proportional study of emoji allowed for a greater understanding of emoji elements to inform design. Profiles, emotive and facial elements and additional features for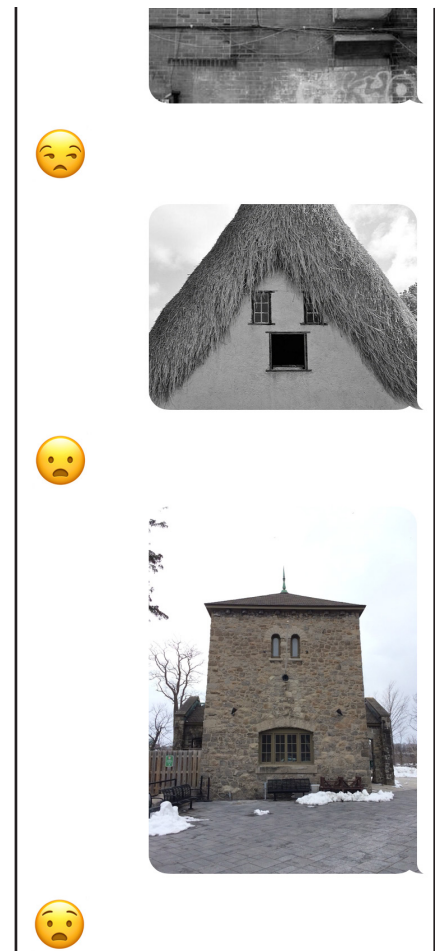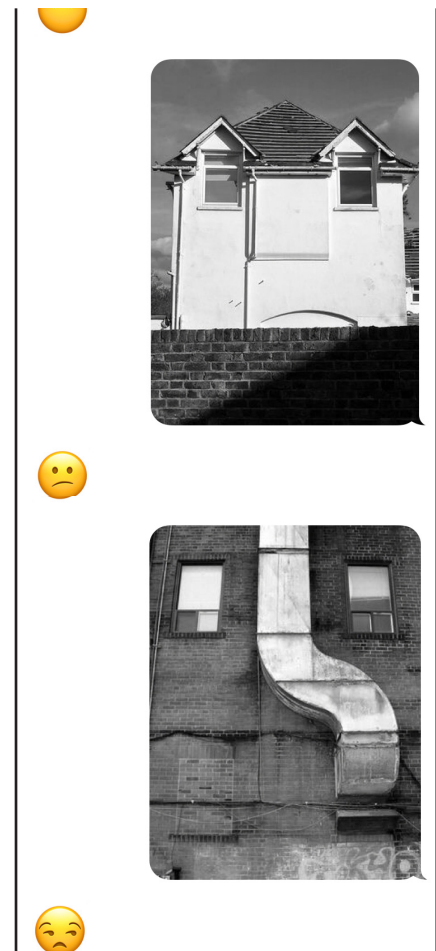m the ensemble of parts. This study is based on the contemporary emoji by Microsoft on the Windows platform from Unicode. The first emojis were created by Shigetaka Kurita in 1999 for Japan's mobile carrier DOCOMO and now Unicode contains different versions of emojis across several platforms.[7]

Emoji Elements

03. INVESTIGATIONS
PAREIDOLIA ANALYSIS

Ordinary elements become extraordinary when viewed through the lens of pareidolia. One mutual characteristic between the ordinary houses and the emoji is that their profiles do not matter and only the elements within foster communication. The profiles give the sense of scale and character.

Left page diagram labels:
M 001, E 001, E 003, E 004, E 005, M 004, M 007, M 005, E 002, M 003, E 006, E 007, EB 001, E 008, E 009, M 008, M 002, M 009, M 006

Right page catalogue:
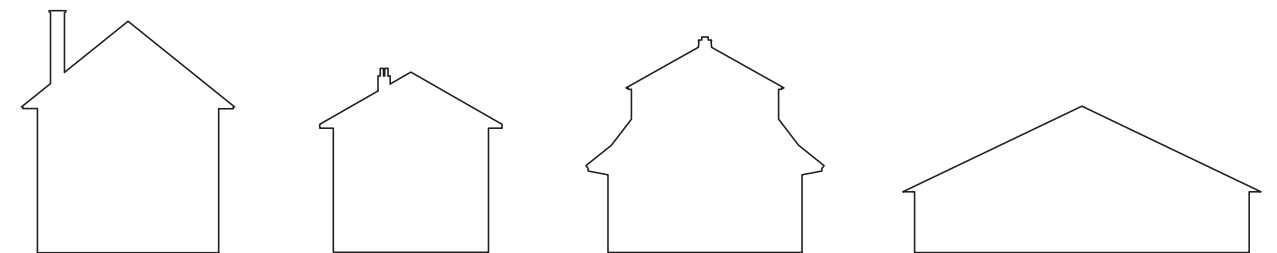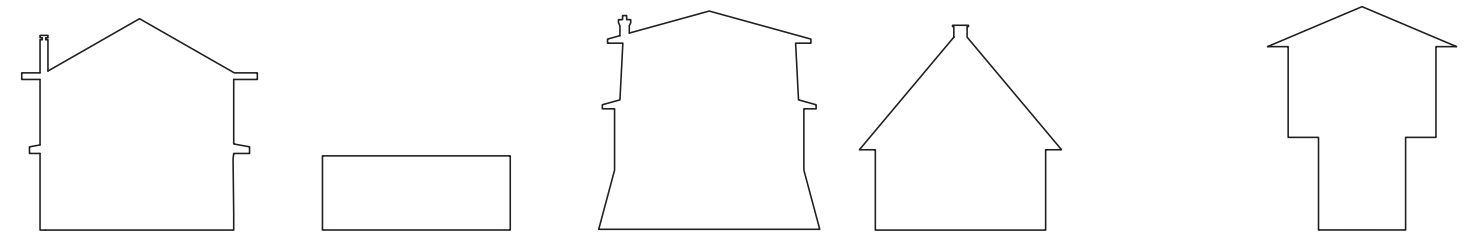
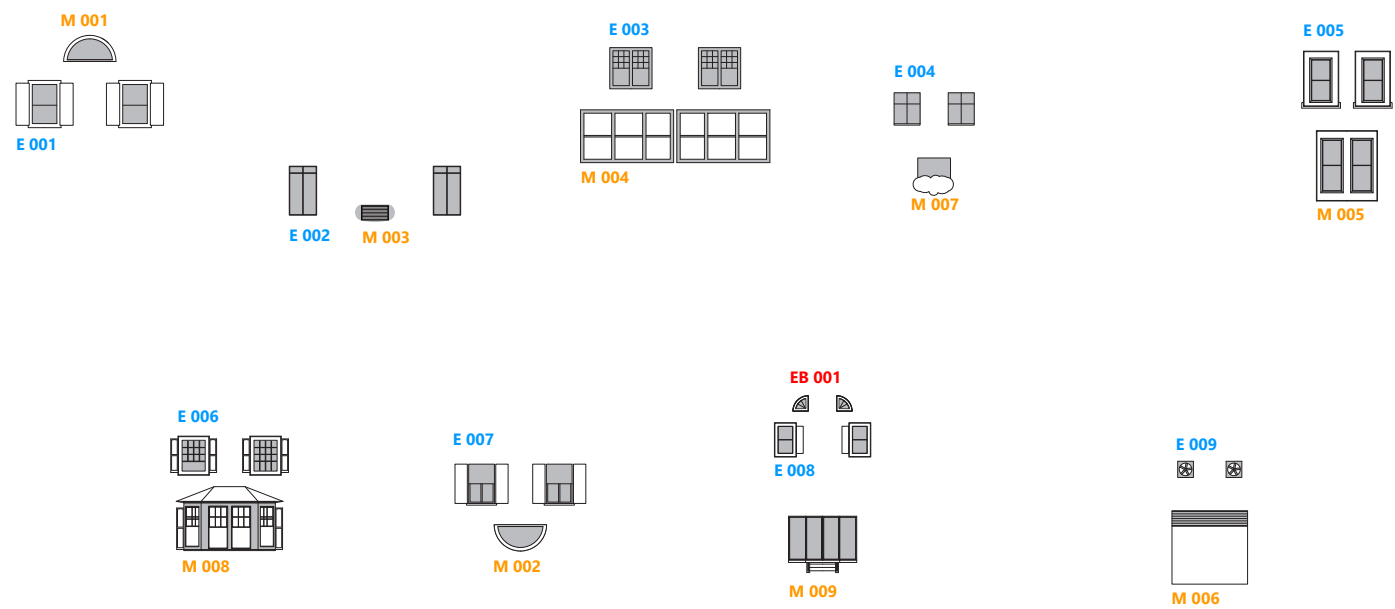|			
Eyes 001 Double hung windows with shutters	**Eyes 002** Fixed windows with cross mullions	**Eyes 003** Mulled double hung windows	**Eyes 004** Fixed windows with sills
Eyes 005 Fixed windows with sills	**Eyes 006** Hopper windows with shutters	**Eyes 007** Casement windows with shutters	**Eyes 008** Double hung windows with shutter
Eyes 009 Exhaust fan units	**Eyebrows 001** Quarter arch windows	**Mouth 001** Circle top window	**Mouth 002** Inverted circle top window
Mouth 003 Exterior vent cover	**Mouth 004** Single hung windows bundle *Includes teeth feature*	**Mouth 005** Mulled double hung windows *Includes teeth feature*	**Mouth 006** Rolling door
Mouth 007 Fixed window with flower bouquet *Includes tongue feature*	**Mouth 008** Bay windows with shutters *Includes teeth feature*	**Mouth 009** Fixed bay windows with sills	

Eyes
Eyebrows
Mouth

Pareidolia - Catalogue of Parts

The catalogue of parts shows what architectural elements can equate to facial/emoji elements such as eyes, eyebrows, and mouths. When architectural elements are separated from their context (face in terms of emoji or elevation in the language of architecture), the denotation still stands and the connotation of each part become ambiguous and illegible.

03. INVESTIGATIONS
BUILDING BLOCKS

The process of translation to emoji started as more literal. By simplifying the emoji parts through fundamental geometries, the original emoji becomes spatial only through extrusions. This drawing depicts how the translation presents the original emoji.

Centered Eye	Off-centered Eye	Exaggerated Squint	Squint
Slanted Eye	Side Eye	Exaggerated Stare	Stare
Small Eye	Large Eye	Directional Squint	Love

Dead

Open Tongue	Close Tongue	Arch Tongue	Wide-open Mouth
Straight Mouth	One Cheek	Two Cheeks	The "O" Mouth
Wavering	Pointed	Mischievous	Side Mouth

Arched Mouth

Emoji Building Blocks - Catalogue of Parts

Simplified geometries were given and assigned to each type of eye and mouth. The centered, slanted, and squint eye relate to the parts that were found and catalogued in the pareidolia images. The blocks of eyes themselves do not connote specific meaning and are only superimposed with assigned denotation. The same happens with the simplified geometries of the mouths.

I HATE YOU BUT I LOVE YOU

"THE SCREAM"

"MIKE WAZOWSKI"

TEARS OF HEARTBREAK

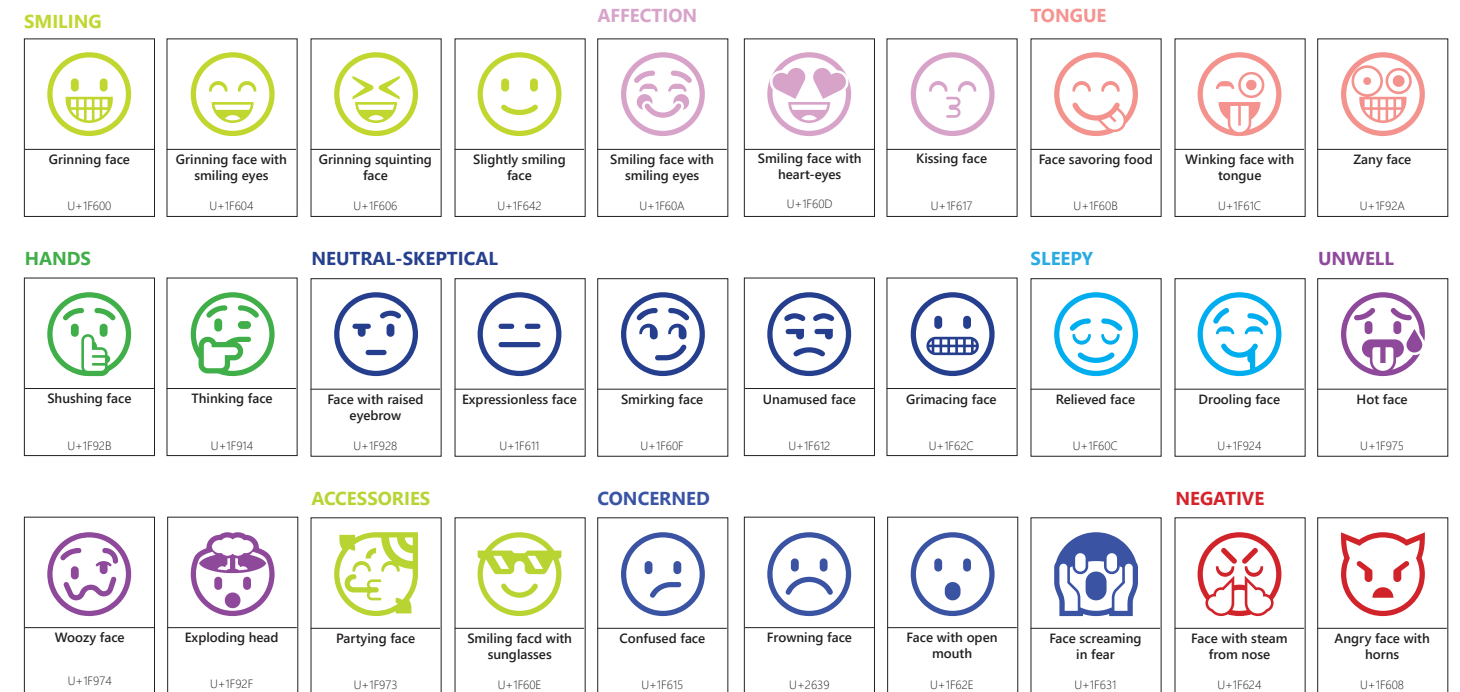WAR PAINT ON THE FACE

MEH

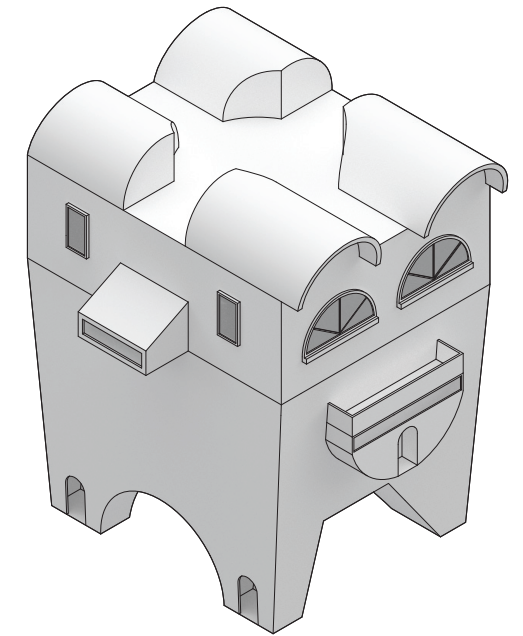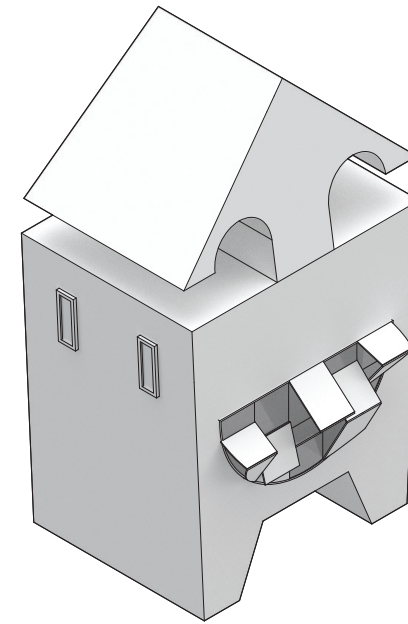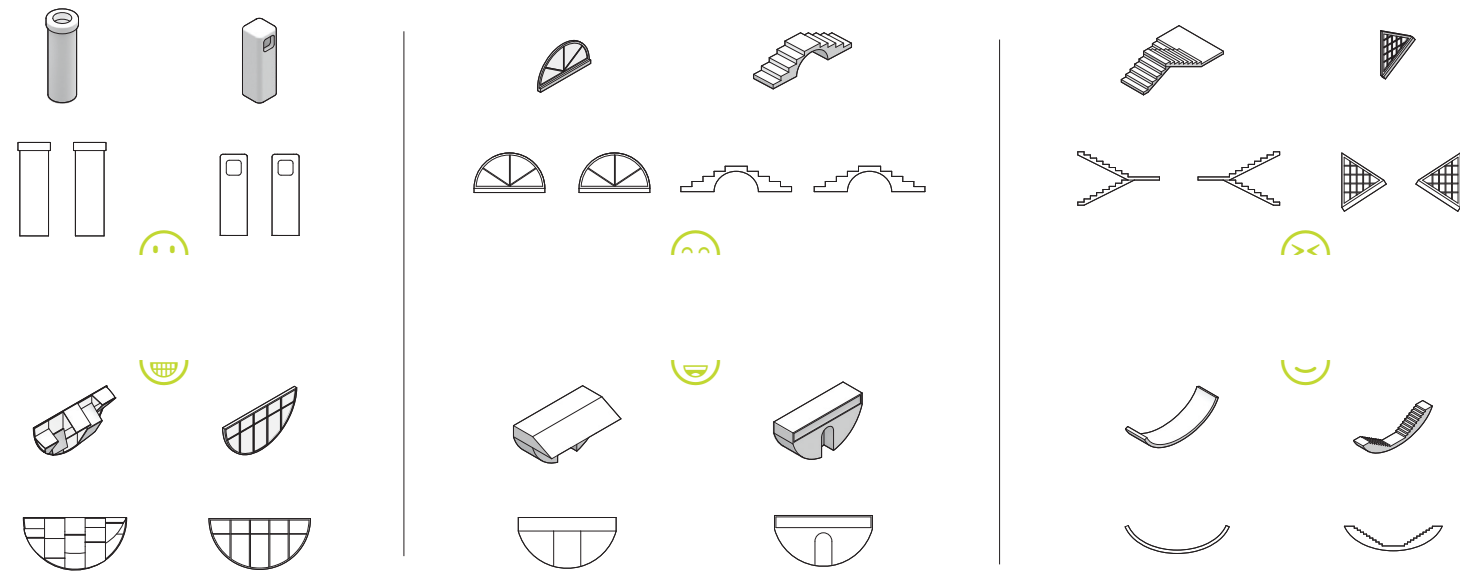TONGUES AND CHEEKS

EYES

MOUTHS
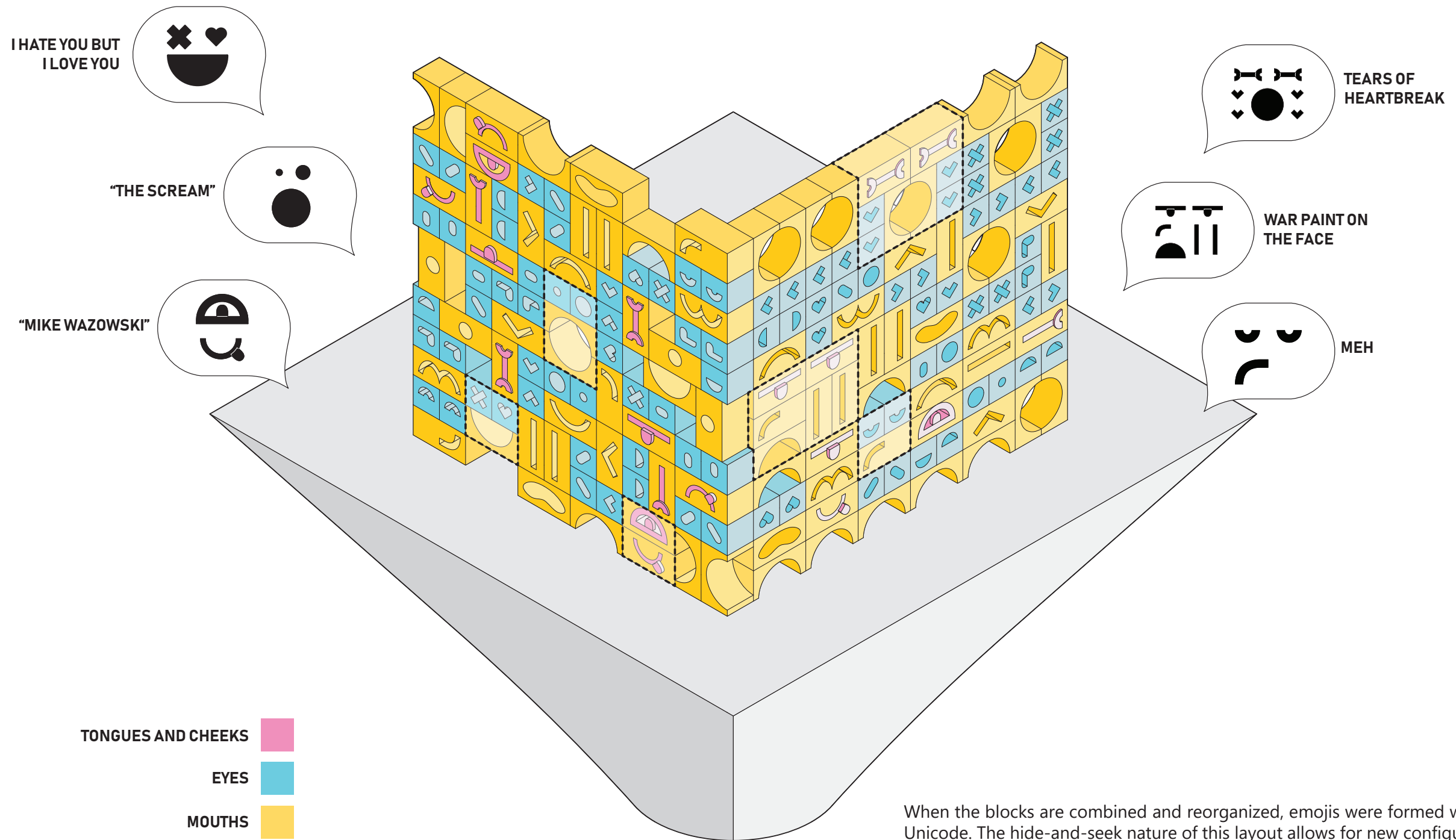
Emoji Mix-up

When the blocks are combined and reorganized, emojis were formed which do not exist in the Unicode. The hide-and-seek nature of this layout allows for new configurations of emoticons to emerge. Because of the tetris way of arranging the parts, the blocks of eyes may become mouths and blocks of mouths may become eyes.

03. INVESTIGATIONS
KIT OF PARTS

The thirty Emojis on the right were chosen from different categories from the Unicode showing a range of expressions and emotions.

SMILING

				AFFECTION			TONGUE		
Grinning face	Grinning face with smiling eyes	Grinning squinting face	Slightly smiling face	Smiling face with smiling eyes	Smiling face with heart-eyes	Kissing face	Face savoring food	Winking face with tongue	Zany face
U+1F600	U+1F604	U+1F606	U+1F642	U+1F60A	U+1F60D	U+1F617	U+1F60B	U+1F61C	U+1F92A

HANDS · **NEUTRAL-SKEPTICAL** · **SLEEPY** · **UNWELL**

							SLEEPY		UNWELL
Shushing face	Thinking face	Face with raised eyebrow	Expressionless face	Smirking face	Unamused face	Grimacing face	Relieved face	Drooling face	Hot face
U+1F92B	U+1F914	U+1F928	U+1F611	U+1F60F	U+1F612	U+1F62C	U+1F60C	U+1F924	U+1F975

ACCESSORIES · **CONCERNED** · **NEGATIVE**

|		ACCESSORIES		CONCERNED				NEGATIVE	
Woozy face	Exploding head	Partying face	Smiling facd with sunglasses	Confused face	Frowning face	Face with open mouth	Face screaming in fear	Face with steam from nose	Angry face with horns
U+1F974	U+1F92F	U+1F973	U+1F60E	U+1F615	U+2639	U+1F62E	U+1F631	U+1F624	U+1F608

Kit of Parts and Their Rules

As Joanna Grant wrote in her article, "Emoji: Image, Meaning, Form," the placement of BIM elements in building models is similar to the pragmatics of emojis. This transformation took the elements of emojis and translated them into functioning building elements.

The kit of parts were applied to buildings with a set of rules: to create a profile, add the elements, and refine the form, manipulating the extrusions and adding any accessory elements. The emoticonstructs were to have two primary sides as emojis and two secondary sides as ambiguous forms.
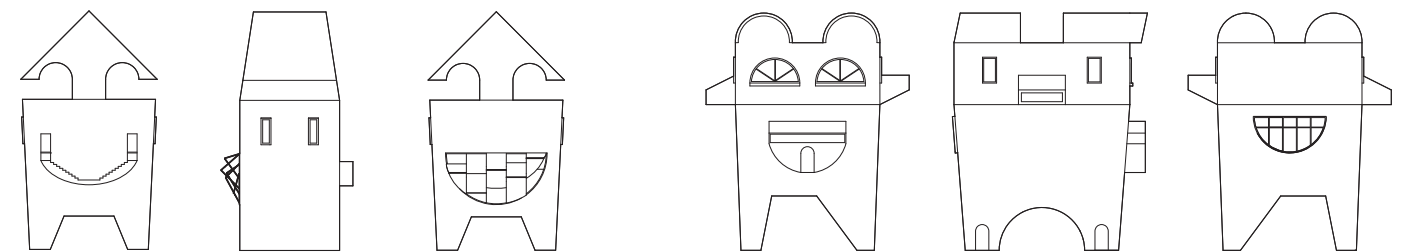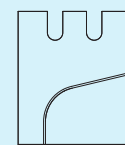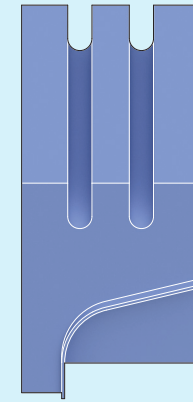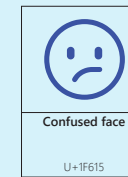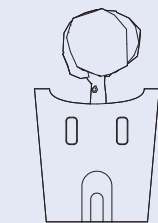
04. PROPOSAL
PROCESS
CONTEXT

04. PROPOSAL
PROCESS

We will apply this new digital and visual language onto architecture through a process of translation. Emojis will be projected onto built forms as a whole and not limited to parts. The diagrams shown are eight from the chosen thirty emojis.

The *Emoticonstructs* on the following page are shown in frontal oblique projection to emphasize the one-sided quality of emojis. The designed composition of emoji elements is abstracted and translated into architectural elements. The profile of the forms is designed to enhance the emotion of the emoticon. This process will work between the design of the overall form and the design of the elements, expanding to the design of the interior, to inform the development of the project as it moves forward next semester. The *Emoticonstructs* will be arranged in a row of multiple houses, allowing the faces to be read in series as emojis are read in context to others on a keyboard.

SMILING	AFFECTION	TONGUE	HANDS	NEUTRAL-SKEPTICAL	SLEEPY	UNWELL	CONCERNED
Grinning face with smiling eyes	Kissing face	Winking face with tongue	Thinking face	Smirking face	Relieved face	Exploding head	Confused face
U+1F604	U+1F617	U+1F61C	U+1F92B	U+1F60F	U+1F60C	U+1F92F	U+1F615

Grinning face with smiling eyes

U+1F604

Kissing face

U+1F617

Winking face with tongue

U+1F61C

Thinking face

U+1F92B

Smirking face

U+1F60F

Relieved face

U+1F60C

Exploding head

U+1F92F

Confused face

U+1F615
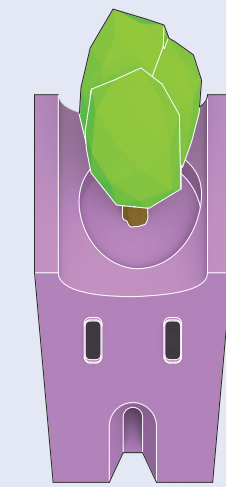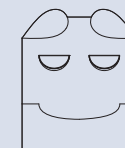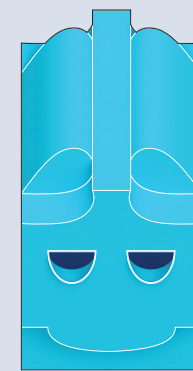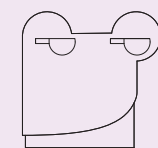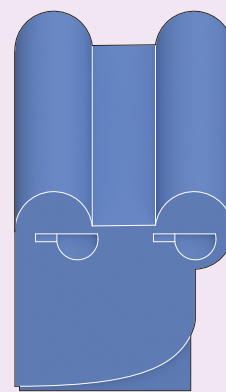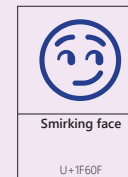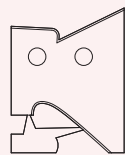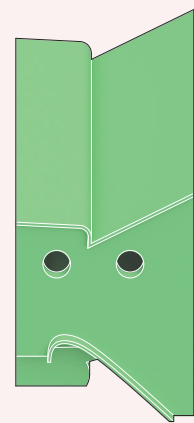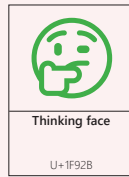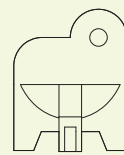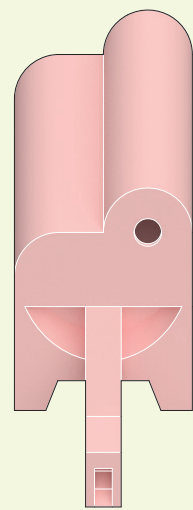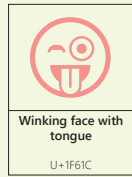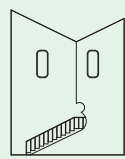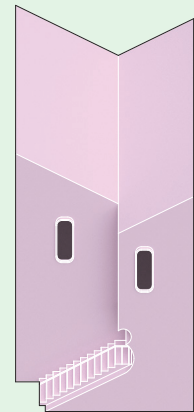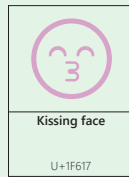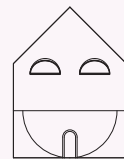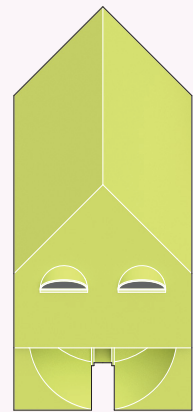
EMOTICONSTRUCTS

EMOTICONSTRUCTS

04. PROPOSAL
CONTEXT

The program will be rental properties along a boardwalk. The context was chosen for its high visibility, heavy foot traffic, the temporality of inhabitants emotive identities, and the ability to easily compare the *Emoticonstructs*.
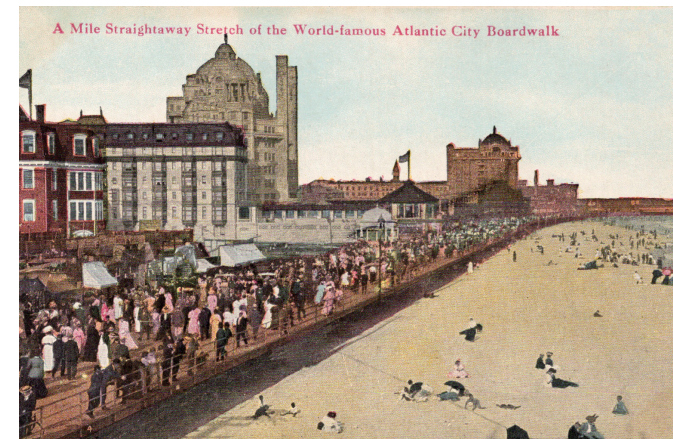
13

Atlantic City Boardwalk
Atlantic City, NJ, USA
1913-1916 Postcard

14

Blenheim front and Million Dollar Pier
Atlantic City, NJ, USA
1913 Postcard

Atlantic City, NJ

Ventnor City, NJ

The Atlantic City Boardwalk extends to
its neighboring city - Ventnor City.

3000 ft

2,125 ft
Marks the end of the boardwalk

500 ft
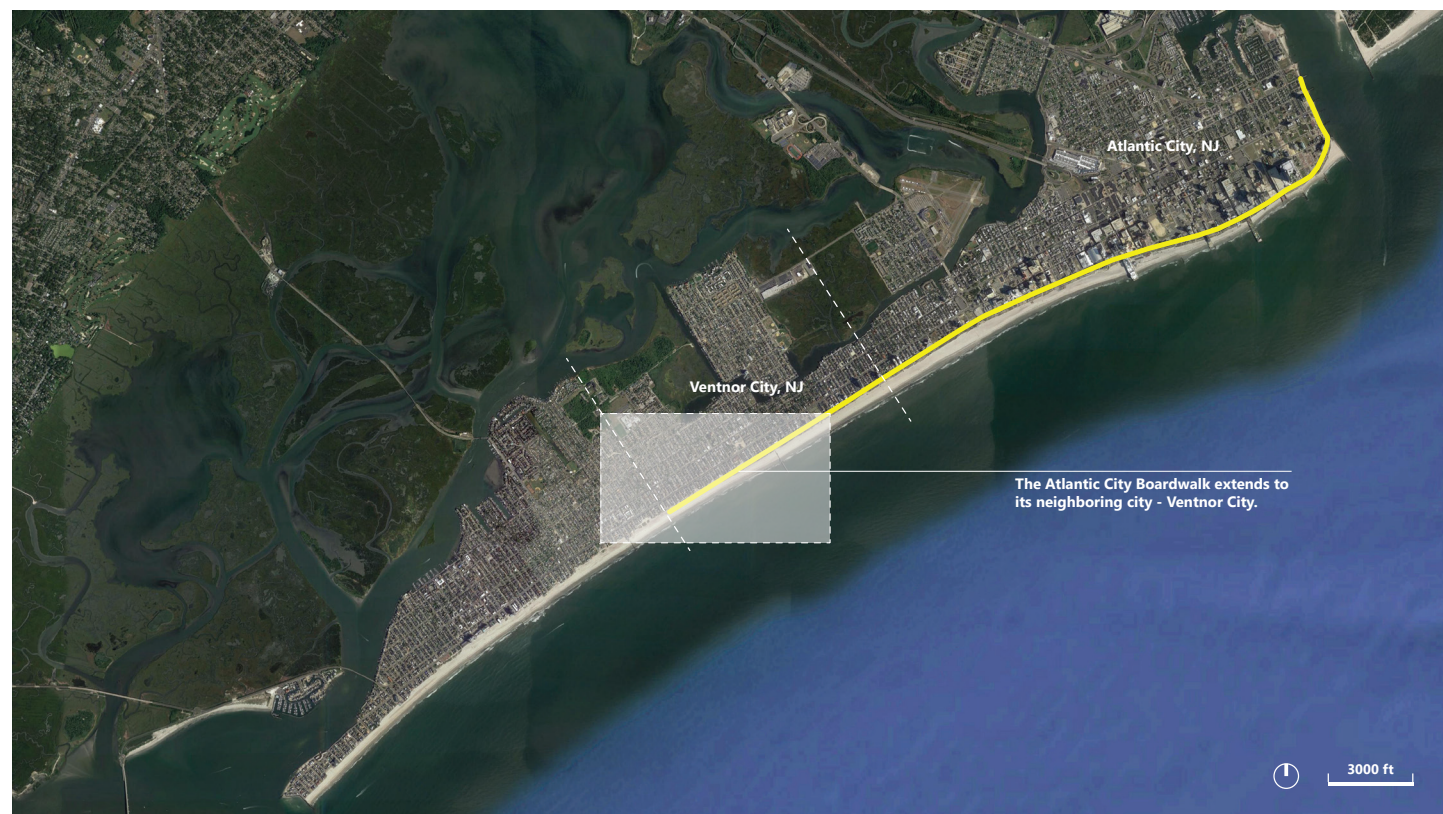
Altantic City, Ventnor City, and the Boardwalk

A site along the boardwalk was chosen for its linear reading of frontal elevations. The Atlantic City Boardwalk is over 4 miles long along the coast stretching from Atlantic City to Ventnor City, which is adjacent to Atlantic City. The boardwalk has high foot traffic because of the casino activity in Atlantic City and there are private beach houses and hotels along the boardwalk as one walks south towards Ventnor City.
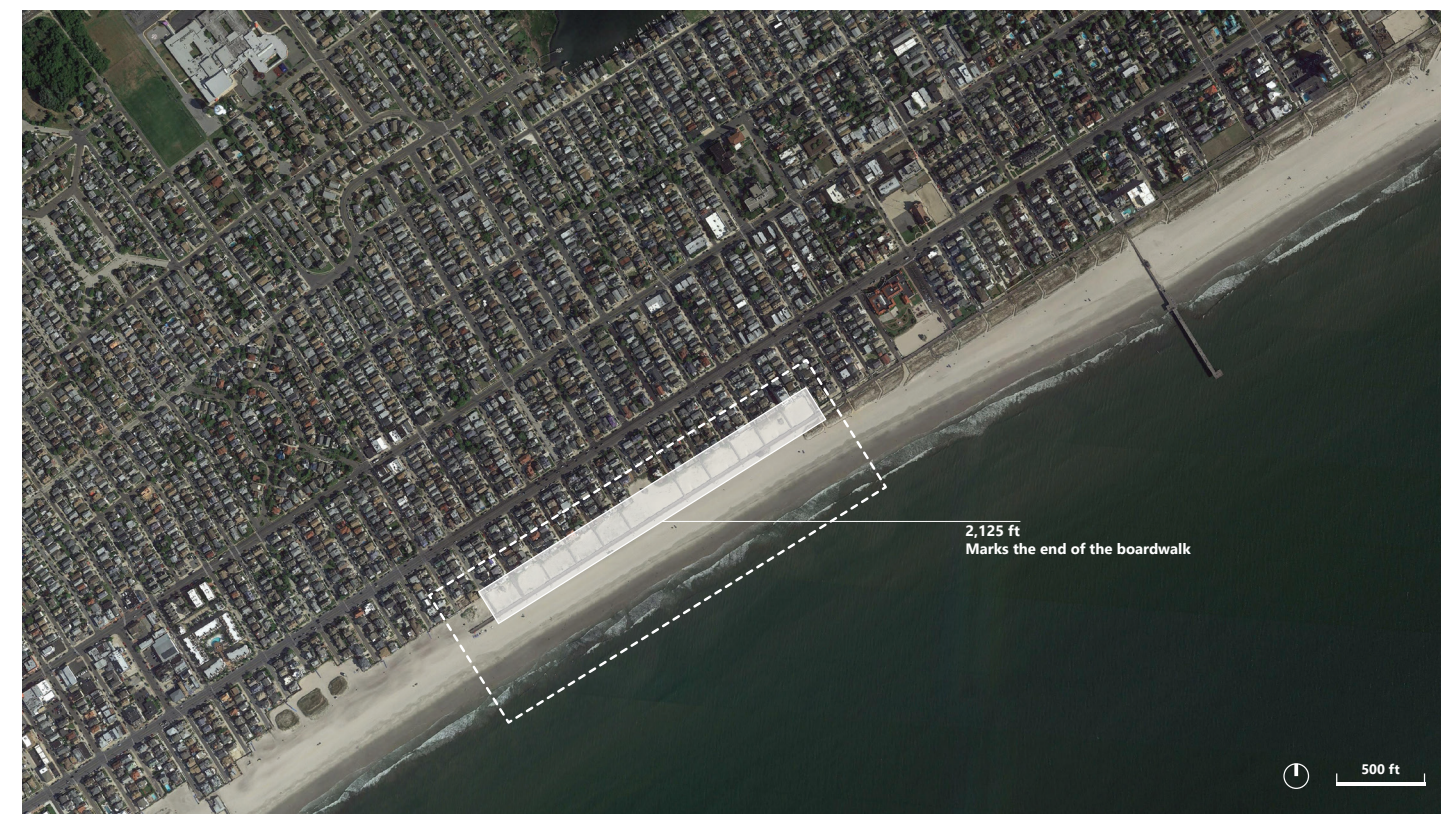
Ventnor City Boardwalk

At the end of the boardwalk in Ventnor City, there are a series of empty plots of land along the boardwalk. We propose to use this area as a testing ground for these Emoticonstruct rentals. The entire length of the empty lots along the tail of the boardwalk is roughly 2,125 ft. We propose to design a master plan for this development of Emoticonstructs.

THE DUCKERATED SHEDS:
DUCKS IN A ROW

Architects often use domestic houses as manifestoes for new architectural design languages. To name a few, Le Corbusier's Villa Savoye, Robert Venturi's Vanna Venturi House, and Peter Eisenman's House VI. Thus, this thesis will utilize domesticity as the testing ground for this proposed updated architectural language. As emoji are meant to represent a temporary emotion of the individual, we chose a site in which the building's inhabitants are not permanent: rentable homes. Having the houses situated along a boardwalk in New Jersey with the emoji elevations facing the water opens dialogues between the houses and those on the boardwalk and beach.
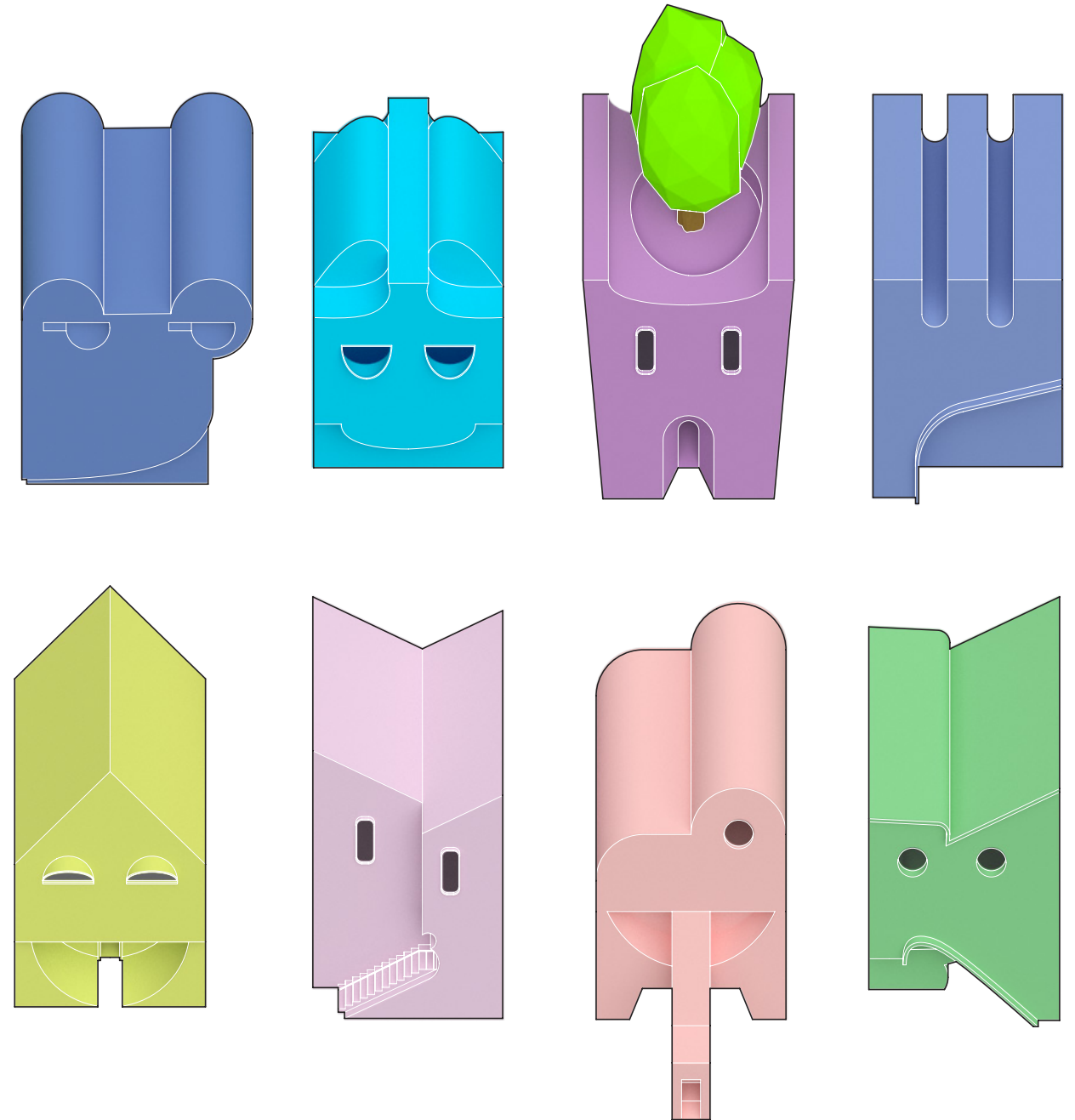
1. "Full Emoji List, v11.0," Unicode, last modified November 9, 2018, https://unicode.org/emoji/charts/full-emoji-list.html.

2. Marcel Danesi. "From cave drawings to emojis: Communication comes full circle," filmed October 27, 2016 at TEDxToronto, Toronto, ON, video, 17:51, https://www.youtube.com/watch?time_continue=8&v=0_QylCztffk.

3. Steven Pinker. "Linguistics as a Window to Understanding the Brain,"released September, 2011 at The Floating University, video, 50:00, https://www.youtube.com/watch?v=Q-B_ONJIEcE.

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

5. "Emoji Architecture," Pinterest, accessed December 15, 2018, https://www.pinterest.com/doriadonut/emoji-architecture/.

6. Ibid.

7. Unicode, "Full Emoji List, v11.0."

8. Ibid.

9. Ibid.

10. Ibid.

11. Ibid.

12. Ibid.

13. "A Mile Straightaway Stretch of the World-famous Atlantic City Boardwalk," 1913. Chilton Company, Philadelphia, PA, image. https://upload.wikimedia.org/wikipedia/commons/8/81/A_mile_of_the_Atlantic_City_boardwalk%2C_Atlantic_City%2C_NJ.png.

14. "View Showing Blenheim front and Million Dollar Pier, Atlantic City, N.J.," 1913. Image. https://upload.wikimedia.org/wikipedia/commons/thumb/0/0f/Atlantic_City_boardwalk%2C_pier_and_Blenheim_Hotel.png/1599px-Atlantic_City_boardwalk%2C_pier_and_Blenheim_Hotel.png.

15. Google Earth. "Ventnor City, Atlantic City, Margate City, and Longport," 39°20'14.45"N and 74°28'51.9"W. Google. August 26, 2016. accessed December 10, 2018.

16. Google Earth. "Ventnor City," 39°19'57.41"N and 74°29'02.20"W. Google. August 26, 2016. accessed December 10, 2018.

05. ENDNOTES

Projects

Aida-Doi Architects. "Nirvana House."

Altshuler, Joseph. "Cast of Civic Characters."

Hejduk, John. "The Kreuzberg Tower"

Kazumasa Yamashita. "Face House."

Kurita, Shigetaka. "Inbox: The Original Emoji." New York: MoMA, 2016.

Mosley, Paul, Juan Andrés Suarez. "An Analogous Theater."

Murphy-Levy-Wurman. "Salke Beach House."

Silvetti, Machado. "Taberna Ancipitas Formae."

06. BIBLIOGRAPHY
ANNOTATED

Text & Others

Altshuler, Joseph. "Animate Architecture: Twelve Reasons to Get in Character." *Log,* no. 33 (Winter 2015), 127-135.
    The article took the stance of arguing the importance of characters in objects. The fictional, humorous, emotional, and adaptable quality of character in architecture is exemplified. Metaphors of characteristic objects could be a potential tool in the architectural discourse.

Danesi, Marcel. "From cave drawings to emojis: Communication comes full circle," filmed October 27, 2016 at TEDxToronto, Toronto, ON, video, 17:51, https://www.youtube.com/watch?time_continue=8&v=0_Qyl-Cztffk.
    Marcel Danesi, a semiotician at University of Toronto lectured regarding the transition of language pragmatics. In the lecture he highlighted how language and human brain works when encountering emoji, the contemporary visual emotive language. He tied emoji back to how human started communicating, via cave paintings and symbols.

Danesi, Marcel. *The Semiotics of Emoji: The Rise of Visual Language in the Age of the Internet.* London: Bloomsbury, 2016.
    This book investigates the language of emoji from its contemporary use to the understanding and future trends of emoji. Danesi also wrote about how the emoji language use also has grammar, particularly in text messages. Emoji, as a rising language also presents its obstacles to its users when communicating.

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.
    Eco wrote about the meanings of architecture and the understanding of symbols. Architecture is not meant to communicate thus it is difficult but by understanding the difference between surface meaning and symbolic and hidden meaning, architecture may be communicative as well.

Grant, Joanna. "Emoji: Image, Meaning, Form." *Paprika*, 2018.
    This text illustrates the change in the architectural discipline (from line drawings to BIM software modeling) and compare with the rise of emoji as a visual language. The paradigm shift in both architecture and language seem to have multiple common grounds and perhaps other interpretations of architecture can be found learning from emojis.

Hsieh, Lisa. "The Architecture Utters Nothing." *Log*, no. 35 (Fall 2015), 60-68.
>   An article that looks at the humor in architecture, especially in Japanese cultural context. Nirvana House, a white house with subtle facial features in Japan designed by Aida-Doi Architects was introduced in the article. Also, the Japanese carpenters' method (okoshi-ezu) of making architectural models to better understand the construction of a building is indicated here as well.

Jacobs, Sam. "The Communicative Mode of Architecture." Mas Context. Summer 2012. accessed December 15, 2018. http://www.mascontext.com/issues/14-communication-summer-12/the-communicative-mode-of-architecture/.
>   This excerpt indicates the possibility and capability of architecture to communicate. However, as a medium, architecture is difficult to be communicative because of its bounded quality. Thus, by introducing the swirling between fiction and non-fiction, architecture may be best to be communicative.

Jencks, Charles. *The New Paradigm in Architecture: The Language of Postmodernism*. 83-86. New Haven: Yale University Press, 2002.
>   This text described and investigated the notion of faces on building facades. Those faces are metaphors onto the building and thus created multiple codings onto architecture, which is one of the most significant features of Postmodernism architecture. Kazumasa Yamashita's Face House was mentioned in the text as a reference as too much of a literal metaphor.

Lucas, Gavin. *The Story of Emoji*. Munich: Prestel, 2016.
>   Provides backdrop for the history, origin, cultural significance, and impact to contemporary society. The text source also explicates and exemplifies the use of contemporary emoji (circa 1990). This text source includes visual materials.

Miller, Kyle. "Nine Lies; Half Truth" *Offramp 9: Lies*, (Spring/Summer 2015).
>   An example of a more literal depiction of a face as a building facade. The source includes relevance to Postmodernism and symbolism of the use of faces in architecture.

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.
>   A study looking into the evolution of emojis used in conversation and whether different orientations of the emojis change the emotional reactions. Emojis typed out as such ':-)' tend to have less of an emotional reaction than emojis which are oriented in a vertical orientation, the same orientation as one would view an actual human face.

Pinker, Steven. "Linguistics as a Window to Understanding the Brain,"released September, 2011 at The Floating University, video, 50:00, https://www.youtube.com/watch?v=Q-B_ONJIEcE.
>   This video introduced to the basics of how language works. With four primary aspects, phonology, semantics, pragmatics, and grammar, respectively. Each of these four aspects represents the sound of a language, the meaning, the use and application and the rules, respectively.

Sedlock, Julia. "Creature Comforts: Toward a Duckerated Shed." March 2015. 103rd ACSA Annual Meeting Proceedings, The Expanding Periphery and the Migrating Center.
>   Sedlock wrote about an upcoming trend of emerging architects experimenting with exaggerated figural forms and narratives. These trends are traced back to the elasticity provided by the discipline of architecture and by rejecting the binary, architecture may have multiple codes of meaning and possibly build new audiences.

Seiter, Courtney, "The Psychology of Emojis," *The Next Web*, June 23, 2015.
>   The increased use of emojis is changing the way we communicate. Looking at emojis creates a similar emotional reaction in the brain as looking at the emotion on a human face. The use of emojis in conversation changes our speech patterns. We use them to enhance plain text and give a statement greater meaning.

Shamiyeh, Michael, and DOM Research Laboratory. *What People Want: Populism in Architecture and Design*. Basel: Birkhäuser, 2005.
>   A book questioning the role of populism in architecture. Must a successful project meet the public's wishes? Trends and expectations of the public may create a certain expectation for architecture. The text looks at whether designs should oppose popular trends or adapt to them.

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.
>   Before the contemporary and world-wide emoji system, the Japanese poets and writers used simple brushstrokes to create the first "emojis". Emoji, as pictograms, means both 'drawing' and 'character'. The emojis first appeared in private mails.

Somol, R.E. "Green Dots 101." *Hunch*, no. 11 (Winter 2006/2007), 28-37.
>   Somol illustrated in this article a methodology of designing architecture to maximize graphic immediacy step by step. The significance of rules when designing in figural, decorative, and formal language was emphasized and investigated in the text.

Unicode. "Full Emoji List, v11.0." Last updated November 9, 2018.
>   The complete library of contemporary emoji across all platforms. Includes detailed information of a standardized pictogram catalog. Each emoji has its own unique code and the code is recognizable across any social networking or technology company's platforms although each has their own proprietary set of emojis.

Wodehouse, Andrew. "Pareidolia: Characterising Facial Anthropomorphism and its Implication for Product Design." *Journal of Design Research*, vol. 16, no. 2, 2018. 83-98.
>   The anthropomorphism of product design allows the consumer to better relate to the object. When seeing faces through pareidolia, symbolic meaning of the object aligns with the viewer's self-image. Effects of culture and self-congruency affect the viewer's range of interpretation. Designing to make object more relatable to the user elicit greater pleasure from the consumer.

"World : Kyoto Face." 1975. *Architectural Review* 158 (December): 381. http://libezproxy.syr.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=bvh&AN=189758&site=ehost-live.
>   This excerpt documents and introduces the Face House in Kyoto, Japan by Yamashita built in the 1970s. The literal and peculiar facade of a human face with distinctive facial features were considered unprecedented and yet successful in terms of its context.

07. THESIS PUBLICATION
DRAFT

Full Names: Doria Miller & Irving Shen
Title: Emoji Disorder
Subtitle: Using a Digital Dialect to Enhance Architectural Communication

Thesis Advisor: Gregory Corso
Advisory Group: Ordinary Conditions

Thesis Statement:

The introduction of emoji to language creates a universal form of communication through expression. This progressing visual language calls for an update to architectural language. The duck, based on form, and the decorated shed, based on signage, are no longer adequate to project meaning on architecture. The symbolic language of emojis calls for a new model: *the duckerated shed*. Applying emoji to architecture allows for a graphic immediacy of understanding. This quick reading of faces is explored through pareidolia[1]. Initially associated with mannerist paintings, depicting realistically proportionate faces of alternate objects, viewing pareidolia through the lens of emojis allows objects to be read as simplified faces.

The thesis will apply this new digital and visual language onto architecture through a process of translation. Emojis will be projected onto built forms. The designed composition of emoji elements will be abstracted and translated into architectural elements. The profile of the forms will be designed to enhance the emotion of the emoticon. The *Emoticonstructs* will be arranged in a row of multiple houses, allowing the faces to be read in series as emojis are read in context to others on a keyboard. The project will include the detailed design of multiple houses and a master plan of the proposed development.

[1] The perception of apparently significant patterns or recognizable images, especially faces, in random or accidental arrangements of shapes and lines - *Oxford Dictionary*

Image Caption: The Emoticonstructs