### Shailee Kothari's Narratives of



#### noun

 'the provision of what is necessary for the health, welfare, maintenance, and protection of someone or something.'
 'serious attention or consideration applied to doing something correctly or to avoid

damage or risk.'

 'feel concern or interest; attach importance to something.'

2. 'look after and provide for the needs of.' Why care?

The ever-presence of design lead me to speculate the complex relation between design and different forms of care.







THE NEW DOMESTIC Fall 2019 p. 42 •



THE HOUSEWIFE Fall 2019 p. 52 •



ANALYSING 'EYES OF THE SKIN' Fall 2019

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## CAMP REVERSAL

ADVANCED ARCHITECTURE STUDIO VI

Spring 2020 Instructor : Mark Wasiuta In collaboration with Uthra Varghese

Camp Reversal : A space for reunification and relocation; aims to create a socio-technical system which aids in the reunification of families separated by applying principles of the information war operations through data extraction and analysis. Our research focused on extractions as concentrations. Information extraction as a part of the territorial data war and mass human extractions in the form of evacuations. The environmental concentrations look at the war as the first war in military history to be run with full scale assistance of electronic data and computer-based analysis. The cultural concentration focuses on the military strategies used to extract humans after the war as well as its cultural influences. Some of the evacuated Vietnamese children who were adopted by American families are now seeking to go back to visit their homelands in search of their parents and cultural heritage. But some of the other children were from Vietnamese war brides and us soldiers. These children are now adults trying to immigrate to America after facing racial difficulties in Vietnam. Hence, the proposal employs a reversal of the military strategies used in the extraction missions in order to make reparations for the past.





"Operation White Igloo created a virtual anti-infiltration barrier along the Viet Cong supply route on the Ho Chi Minh trail, leading to an electronic battle fought from multiple territories."



ACOUBUOY SENSOR - OPERATION WHITE IGLOO



SONOBUOY SENSOR - OPERATION WHITE IGLOO

### HAMLET EVALUATION SYSTEM

It was a computerized pacification reporting system which translated the intangible dimensions and development trends of South Vietnam hamlets into objective statistics. 6 key conditions were recorded through the system worksheets. Hamlets were marked by UTM coordinate system. The data was used to generate SY-MAPs which rated each hamlet with a score from A-E. These statistics were considered as a evidence of progress control and sent to Washington DC.

> "In this system, US District Advisors embodied sensors and translated the qualitative socio-political life of the hamlet into a quantitative score."



#### CAMP REVERSAL



OPERATION BABYLIFT - REUSE OF CARGO AIRPLANES

OPERATION BABYLIFT - TRANSPORT



#### PROJECT MANIFESTO

Movement across the site is organized by the information system which aims to understand the visitor's emotions and describe paths relative to that. As a part of the process DNA will be collected to find biological matches and create a database for easy identification of American and Vietnamese genes. As more people visit the site, information will be collected in order to form an archive and a network of persons which can be used to find other matches.





"The spatial strategy involves creating an electronic landscape with programmed activities that facilitate the reunification and immigration process."



#### AIRPLANE TERMINAL

The project uses Guam as a space of new diplomatic relations between Vietnam and America, allowing visa free entry to the Vietnamese individuals. The camp site is an extension to the existing Anderson air force base which was the primary air base used during Operation New life. Once their application is approved, individuals fly to Guam. Upon landing the two airplanes, one from Vietnam and the other from America will arrive at their respective terminals where individuals proceed to separate entrances for their different processing procedures.





#### DATA COLLECTION SYSTEM

The information war operated on separating bodies and collecting information about complex socio-political characteristics. Similarly, the information about the visitor's emotional state will be collected through a combined network of heart monitors, facial analysis and emotional surveys at these checkpoints in order to allow or deny access to activities. Check points are used as way-finding systems, information collection points and data war memorials across the site.



CAMP REVERSAL





COMMEMORATIVE CHECKPOINT

#### REUNIFICATION CENTER

The first meeting between the two individuals will take place in the reunification center. This is also the site of the DNA testing lab and gallery as well as the camp's control room and data collection center.

ad CONTROL ROOM AD 、淳 0 AD ad

"Families that are reunited revisit the reunification space and close their database as a sign of completion, joining a virtual network of reconnected families."

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CAMP REVERSAL



COUNSELING ROOMS



PERSONAL DINING PAVILIONS







CARE . 35

#### TRAILS

Paths and checkpoints around the recreational activities become a memorial to the data war as the visitors can experience the sounds of the operation white igloo sensors activated through motion. Visitors will be encouraged to walk in varying patterns in order to activate different sounds. The emotional trail around the counseling spaces will play sounds of the cities of their respective partner coupled with projections of photographs of key events in their lives.





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CAMP REVERSAL
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WEDDING SPACE



CITIZENSHIP TESTING

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CAMP REVERSAL
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# THE NEW DOMESTIC

DATA MINING THE CITY Fall 2019 Instructors : Violet Whitney In collaboration with Sritoma Bhattacharjee

Residential designs that we inhabit today are the product of industrialization. Where the idea that everyone left the home to work at the same time was introduced and a uniform spatial separation was created between the place of living and the place of work across society. However, our houses should be changing in relation to the flexible and un-tethered lifestyle. Many workers now coordinate across different time zones and hence sleep schedules have become flexible. Moreover, a lot of professionals now work from home. These shifting attitudes to sleep and work lead to a change in demand of living space, hence asking for a new typology of living system. Since co-living apartments are currently the most flexible and cheaper living arrangement available, there has been a resurgence in this system of living. Co-living models also

provide urban residents a solution to other issues such as high cost of living and solitary lifestyles. The project creates residential spatial configurations based on the demand of spaces in a contemporary variable lifestyle in order to produce a highly efficient floor plan in terms of occupation of space over different time cycles.

"When one looks at the floor plan, it is supposed to describe human relationships, in which the addition of windows, doors, walls, and stairs are utilized to first divide the space, then selectively reunite the inhabited space." Architecture is designed to provide a format for social life, and the dynamic interactions that happen in constantly pacing time. — Robin Evans in Figures, doors & passages.

### A New Way of Organizing Apartments.

The co-living models being tried out today concern themselves only with space optimization. The potential, instead, it seems would lie in being able to optimize space through time. It thus presents itself as a spatial as well as a temporal problem. An agent based scheduling and space organization simulation has been attempted to unlock the potential of such an approach.

#### Ownership

Historically, certain sects of people have been treated in inhuman ways. When it comes to ownership of land and space, they fall into a great disadvantage as ownership of land and space is very much a factor of time. It is an asset that builds through generations and can be used to build other assets. The implications thus multiply significantly. With this ever widening chasm between the rich and the poor, cities are becoming increasingly polarized. With a belief that space shouldn't be a commodity to be owned by people, the project explores the possibility of housing with zero ownership and tests it against varying levels of privacy.



#### The Hypothesis

The project aims to rethink the design of future neighborhoods in order to improve the quality of life, while tackling the challenges of rising inequality, densification, increasing costs and globalization in cities today.

Due to rapid urbanization, there has been a resurgence of co-living all over the world. The high prices of real estate and an increasingly solitary lifestyle are leading people to seek new ways of living.

Cities that we inhabit now are the result of the huge transformation in our lives with the arrival of industrialization, the separation of the place of living and the place of work, and the idea that you leave the home to work However, our houses and neighborhoods should be changing in relation to the fact that 80 per cent of young professionals are working from their beds (wall street journal article).

Now workers coordinating across different time zones are returning to a flexible sleep schedule, in order to make conference calls with offices on the other side of the world. Shifting attitudes to sleep are already creating new typologies of urban architecture such as new hotels that have sleeping pods, are very reminiscent of the Archigram designs of the 1960s,"

Community living also brings into question the relationship of men, women and children in today's world as theorized by Dolores Hayden in The Grand Domestic Revolution through domestic reorganization and creating community services.

The combination of smart-phone technology, the flexible and un-tethered nature of work, the sharing economy, and the rise of co-living has given the "horizontal architecture" of the bed a new significance, claims Architectural Historian Beatriz Colomina.



#### Privacy

The simulation looks at the use of space in flux based on contemporary variable lifestyle and its inefficiency in occupation of space over different time cycles. Leading to a layered privacy concept where the owner would be able to regulate the sharing ratio of the apartment. Four scenarios are considered:

100% Ownership and 100% Privacy — each person has their own apartment

100% Ownership and 0% Privacy — current co-living model

0% Ownership and 100% Privacy — each room is always occupied by I person

0% Ownership and 0% Privacy — each room is always occupied as per the room limit.

Living: 4 persons , Kitchen and Dining: 2 persons . Study: 2 persons , Bedroom: 2 persons , Bathroom: I person

#### Schedule

A hypothetical schedule is created for a nurse who has night shifts, an accountant with a 9–5 job, an architecture student who spends sleepless nights at school, a retiree who spends most of his/her time at home and a techie who works from home. These schedules are then multiplied to get 20 schedules for twenty people.

#### Adjacency

We outlined different rules for generating floor plans based on the privacy and sharedness level and using the transitions from space to space in the schedule. The corridor is always generated first followed by the living room and the bedroom, the bathroom and the kitchen and then the study. In the model where there is no ownership and no sharedness, the corridor is the seed which connects to the living area or bedroom area. This scenario led to the some of the entries being from the bathroom where people freshen up before entering their living room or bedroom. The kitchen is connected to the living room and bedroom, and the study is connected to the bedroom and living room. The bathroom turns out to be the key in all spaces and they all benefit from being connected to the bathroom. Another model was created where all spaces get accessed from the corridor and thus the corridor becomes the space of encounter.

Since the normal rules for housing such as light/ventilation or efficiency of vertical circulation of services were not the concern here, they were not considered in generating the floor plan.



#### **How it Works**

The schedules of the different people that are going to live in the apartment are input into an excel sheet. A csv file is created from it which is then turned into arrays in c#. An app can be used by people to input their schedules into the system and generate floor plans in real time. For the sake of simplicity, hours of the day are taken in two hour intervals. Each array contains the spaces that are being used at that hour. The simulation starts from 8 AM and generates all the spaces required at that time. It then goes onto 10 AM and generates only those spaces which are not in the previous array.



INTERACTIVE SCHEDULE INPUT

THE NEW DOMESTIC

SCENARIO I: 100% PRIVACY & 100% OWNERSHIP

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OWNERSHIP

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SCENARIO 2 V2: 100% PRIVACY & 0% OWNERSHIP



#### **Capitalist vs. Communist Living**

The project, through a changed ownership model, proposes a more affordable way of living. One would thus only be paying for the space that they occupy for that specific period of time. People would move from space to space while their phone detects the change in space at the threshold (door) and charges them for it and registers it in the system. The varying affordability allows us to create a society where all are allowed equal access to space vs today's capitalist rental market.

Even though the proposed designs focus on creating reasonable cost and density, they create opportunities for intellectual conglomeration by means of this density through spaces that can force or stimulate interactions. Through such a controlled system, the owners can control the interactions people have in space.

#### What Do We Learn

#### **Design Social Interactions Based on Needs**

By controlling the privacy and ownership, we create varying floor plans, each which can accommodate a different density of residents. The same number of residents occupy a considerably more area when there is ownership and no sharedness, compared to where there is no ownership and no sharedness. This area occupied reduces even further when there is no ownership and no sharedness. It was thus found that the quality of life can be made better by scheduling the occupancy of the different spaces instead of cramming multiple residents into one space or making the space itself smaller.







#### **Further Thoughts**

The traditional notion of a "living room" or a "bedroom" cannot be used to design housing in the future. The way people use these spaces is going to be drastically different in a zero ownership model and it thus lends itself to a lot more experimentation and thought. Implications of such a project would be an equilibrium of work timings where the population in a city works for different third of the day.

Morever, the system can begin as a equal living neighborhood instead of mirroring the current power segregation in society.

This model of living could lead to a reduction in the contemporary social isolation epidemic.

Finally this shared concept can be extended for the reuse of other objects like cellphones, clothes, furniture, etc.

#### References

Evans, R. (1997). Translations from drawing to building. Cambridge, MA: MIT Press.

https://steemit.com/architecture/@twotoedsloth/ domesticspaceasfiguresdoorsandpassagesbyrobinevans-uw0rl7vIny

http://work.antonandirene.com/onesharedhouse/2/ https://emthesis.files.wordpress.com/2008/11/evans-figures-doors-and-passages.pdf SCRIPT VIGNETTE using System.Collections;

using System.Collections.Generic;

using UnityEngine; public class RoomSpawning : MonoBehaviour

public GameObject LivingRoom;

public GameObject KitchenDiningRoom;

public GameObject StudyRoom;

public GameObject BathRoom;

public GameObject BedRoom;

public GameObject Corridor;

string[] eightAM = { "Living", "Bedroom", "Bathroom", "Bathroom", "Study", "Living", "Bedroom", "Bathroom", "Bathroom", "Study", "Living", "Bedroom", "Bathroom", "Bathroom", "Study", "Living", "Bedroom", "Bathroom", "Bathroom", "Study" };

string[] tenAM = { "Living", "Bed", "Bed", "Out", "Out", "Living", "Bed", "Bed", "Out", "Out" };

string[] twelvePM = { "Bath", "Bath", "Bed", "Out", "Out", "Bath", "Bath", "Bed", "Out", "Out", "Bath", "Bath", "Bed", "Out", "Out", "Bath", "Bath", "Bed", "Out", "Out" };

string[] twoPM = { "Study", "Kitchen", "Bed", "Out", "Out", "Study", "Kitchen", "Bed", "Out", "Out", "Study", "Kitchen", "Bed", "Out", "Out", "Study", "Kitchen",

"Bed", "Out", "Out" }; string[] fourPM = { "Living", "Study", "Bed", "Out", "Out", "Living", "Study",

"Bed", "Out", "Out", "Living", "Study", "Bed", "Out", "Out", "Living", "Study", "Bed", "Out", "Out" };

string[] sixPM = { "Bath", "Study", "Bath", "Kitchen", "Out", "Bath", "Study", "Bath", "Kitchen", "Out", "Bath", "Study", "Bath", "Kitchen", "Out", "Bath", "Study", "Bath", "Kitchen", "Out" };

string[] eightPM = { "Bed", "Study", "Kitchen", "Living", "Out", "Bed", "Study", "Kitchen", "Living", "Out", "Bed", "Study", "Kitchen", "Living", "Out", "Bed", "Study", "Kitchen", "Living", "Out" };

string[] tenPM = { "Bed", "Study", "Out", "Bath", "Out", "Bed", "Study", "Out", "Bath", "Out", "Bed", "Study", "Out", "Bath", "Out", "Bed", "Study", "Out", "Bath", "Out" };

string[] twelveAM = { "Bed", "Bath", "Out", "Bed", "Out", "Bed", "Bath", "Out", "Bed", "Out", "Bed", "Bath", "Out", "Bed", "Out", "Bed", "Bath", "Out", "Bed", "Out" };

string[] twoAM = { "Bed", "Living", "Out", "Bed", "Bath", "Bed", "Living", "Out", "Bed", "Bath", "Bed", "Living", "Out", "Bed", "Bath", "Bed", "Living", "Out", "Bed", "Bath" };

string[] fourAM = { "Bath", "Bed", "Out", "Bed", "Bed", "Bath", "Bath", "Bed", "Bath", "Bath", "Bath", "Bed", "Bath", "Bath,"","Bath,","Bath,","Bath,","Bath,","Bath,","Bath,","

"Bed" };

string[] sixAM = { "Kitchen", "Bed", "Out", "Bed", "Bath", "Kitchen", "Bed", "Out", "Bed", "Bath", "Kitchen", "Bed", "Out", "Bed", "Bath", "Kitchen", "Bed", "Out", "P. I" "P. I"

"Bed", "Bath" }; int LivingBuilt = 0;

int LivingNeed = 0;

int KitchenBuilt = 0;

int KitchenNeed = 0;

int BedBuilt = 0;

int BedNeed = 0; int BathBuilt = 0;

int BathNeed = 0;

int StudyBuilt = 0;

int StudyNeed = 0;

// Start is called before the first frame update

void Start()

{} //II+

// Update is called once per frame
void FixedUpdate()

List<string> schedule = new List<string>(); //eightAM Array adding spaces to the List foreach (string Living in eightAM)

schedule.Add("Living");

break;
}
foreach (string Bedroom in eightAM)
{
schedule.Add("Bedroom");

break;

LivingBuilt++;

foreach (string Bathroom in eightAM)

schedule.Add("Bathroom");
break;

foreach (string Study in eightAM)

schedule.Add("Study");
break;

foreach (string Kitchen in eightAM)

schedule.Add("Kitchen");
break;

foreach (string Living in tenAM)

if schedule.Count "Living" >= LivingBuilt schedule.Add("Living"); LivingBuilt++ else don't do anything

foreach (string Bedroom in tenAM)

schedule.Add("Bedroom");

foreach (string Bathroom in tenAM)

schedule.Add("Bathroom");

foreach (string Study in tenAM)

schedule.Add("Study");

foreach (string Kitchen in tenAM)

schedule.Add("Kitchen");

foreach (string Living in twelvePM)

schedule.Add("Living");

foreach (string Bedroom in twelvePM)

schedule.Add("Bedroom");

foreach (string Kitchen in schedule)

Instantiate(KitchenDiningRoom, new Vector3(0, 0, 0), Quaternion.identity); break;

foreach (string Study in schedule)

Instantiate(StudyRoom, new Vector3(0, 0, 0), Quaternion.identity); break;

schedule.Clear();

122122

foreach (string Bathroom in eightPM)

# THE HOUSEWIFE

ADVANCED ARCHITECTURE DESIGN STUDIO V Fall 2019 Instructor : Bryony Roberts

Located in Little India, Jackson Heights, the project is sited on the location of an existing building with South Asian saree and Jewelery retail stores. Responding to the context, the project caters to the demographic to which majority of the retail on Little India cater to - South Asian Women. Immigrating from culturally diverse and highly patriarchal countries, these women many times find it difficult to settle into their lives in the United States. Through social media groups, these women form a network of support for each other through sharing experiences. Hence the proposal provides them a physical platform to do the same while outsourcing their household chores to the building through automation and childcare facility. The project is women's care sanctuary, which socializes childcare, empowers, educates these women, and automates domestic labor, eventually becoming a billboard of empowered working women THE HOUSEWIFE





Taking the Mughal era queens palace architecture as a reference and extracted the key architectural elements of courtyards, colonnades and objects in fields. The diagram was then flipped as a response to the highly patriarchal Mughal society. Therefore, instead of having an inward looking courtyard building, the proposal is an outward looking transparent building which becomes a billboard of empowered women. Arches were carried forward as a critique of the stereotype of Indian architecture in western countries. The project is located in Jackson heights queens in an area called little India. The street has multiple Indian grocery stores, restaurants and jewelry stores and is adjacent to other streets occupied by other South Asian communities. There is an existing building on site, which has an architectural language of arches and is occupied by saree retail stores and Indian jewelry stores. In response to this context I decided to cater to the demographic to which majority of the retail on the street caters to - South Asian Women. Immigrating from culturally diverse and highly patriarchal countries, these women many times find it difficult to settle into their lives in the United States. They may find it lonely, difficult to adapt their skills or just the difficulty of adjusting to a new culture and language. Additionally through research, I observed that these women tend to form networks of support for other women going through the same thing by sharing their experiences or giving simple tips on how to get a job or the most efficient way to do groceries on social media channels. My project works to provide these women a physical platform to do the same. Moreover, the traditional roles of domestic labor are still expected of these women and this costs them 4 extra hours of work daily and these chores if monetized could earn them \$ 7,300 per annum. The project is women's care sanctuary, which socializes childcare, empowers, educates these women, and automates domestic labor, eventually becoming a billboard of empowered working women.

"The outward looking building uses arches and vaults as the main spatial organizers into which the different programs are plugged in, presenting a critique to the connotations of South Asian structures and society."





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THE HOUSEWIFE
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GROUND FLOOR PLAN



FIRST FLOOR PLAN

#### WOMENS COMMUNITY SPACE

The plan abstracts the spatial qualities Mughal era, Queen Jodha's Palace. Colonnades and open spaces for group activities and niches for private social gatherings. Angled spaces for energetic and active programs. Through redesign of common activities to become an enriching social experience, the center allows for the women's personal development because of community support. Social care becomes a collaborative effort.





COMMUNITY CENTER FLOOR PLAN 2

THE HOUSEWIFE



CHILD CARE FACILITY LEVEL 2

#### CHILD CARE FACILITY

The childcare facility is designed as a flexible open space. This allows for the children to modify their surroundings as per their needs through small sized movable furniture. Maximum open space is provided for the toddlers to play. The geometries of the spaces coincide with the program , hence making the spaces more energetic or calm depending on the use. The separation of womens center and childcare facility allows the women to take a mental break while focusing on themselves.



#### THE HOUSEWIFE

"Traditional roles of domestic labor expected of these women hinders their ability to pursue their careers and self development. These chores cost them 4 extra hours of work everyday and a salary loss of \$ 7000 per annum"



#### AUTOMATED DOMESTIC CHORES





AUTOMATED WASHING SERVICE



AUTOMATED DINING SERVICE




# ANALYZING "THE EYES OF THE SKIN"

ARGUMENTS Fall 2019 Instructors : Mark Wigley

Analyzing "The Eyes of the Skin" by Juhani Pallasmaa. The Eyes of the Skin: Architecture and the Senses' by Juhani Pallasmaa was written the first time in 1996 and has been widely read as an architectural theory. The book derives itself from Pallasmaa's thinking style and design methodology which also tends to focus on environmental psychology. The Eyes of the Skin is based on the theme of phenomenology in architecture. It discusses a variety of material choices in architecture, and their immaterial effects on people. Pallasmaa in the book critiques the Western ocularcentrism and "hegemony of vision" in contemporary architecture along with the "suppression of other senses in the way architecture [is] taught, conceived and critiqued." The book, although written almost 20 years ago has several editions which present attempts by Pallasmaa to continuously update the book with relevant prefaces and introductions.

"The Eyes of the Skin is based on the theme of phenomenology in architecture. It discusses a variety of material choices in architecture, and their immaterial effects on people"

ANALYZING 'THE EYES OF THE SKIN'

'The Eyes of the Skin: Architecture and the Senses' by Juhani Pallasmaa was written the first time in 1996 and has been widely read as an architectural theory. The book derives itself from Pallasmaa's thinking style and design methodology which also tends to focus on environmental psychology. The Eyes of the Skin is based on the theme of phenomenology in architecture. It discusses a variety of material choices in architecture, and their immaterial effects on people. Pallasmaa in the book critiques the Western ocularcentrism and "hegemony of vision" in contemporary architecture along with the "suppression of other senses in the way architecture [is] taught, conceived and critiqued." The book, although written almost 20 years ago has several editions which present attempts by Pallasmaa to continuously update the book with relevant prefaces and introductions.

Written around the time of the commercialization of the internet and the emergence of the deconstructivist style in architecture, the book seems to be a concerned call to action over the extreme importance of visual imagery vs. the lack of tactile and sensuous experiences in contemporary architecture.

## **CONTEXT and AUDIENCE**

Pallasmaa places his text and ideologies as a small part of the larger conversation of an increasingly ocularcentric world. He begins by placing the importance of vision in historic occurrences of Greek and Renaissance philosophies, poetry, theory and built architecture:

Plato regarded vision as humanity's greatest gift.... Since the Greeks, philosophical writings of all times have abounded with ocular metaphors to the point that knowledge has become analogous with clear vision.... During the Renaissance, the five senses were understood to form a hierarchical system form the highest sense of vision down to touch.

He then goes on to identify this increasing visual stim-

ulation in contemporary media, design styles, and architecture theories while reacting to its effect on built architecture emerging in the same era. Through this, Pallasmaa allows the book to become a trans-disciplinary discussion relevant to multiple fields along with architecture in contemporary times. He primarily questions the privilege of the eye over the other senses.

Pallasmaa divides his book into two main parts each which he calls "surveys", thus inferring that his writing and research has examined thoroughly the topic at hand. With the first part advocating the bias of "ocular centric design" in the "Western Thought" and the second part announcing the importance of "sensory architecture" through personal anecdotes, scientific and philosophical references.

Since Pallasmaa discusses precise design ideologies and spatial references throughout the book, the book presents itself as written primarily for designers and architects. Nevertheless, even though he refers to a wide variety of authors, philosophers, architects and poets, he provides enough context and reference for a layman to understand the argument. Thus making the book an accessible reading for readers from a multitude of fields by means of his straightforward writing style and clear organization of the text from a general discussion of the privilege of vision to specific sensual experiences in the built environment. In the book, Pallasmaa associates philosophical tenets, classical arts and science with architectural concepts hence providing the readers with multiple viewpoints to understand the theory. Moreover, he develops the theoretical premise of the importance of the senses by referring and quoting philosophers like Merleau-Ponty, Bachelard and Heidegger and further goes on to position these ideas in the work of a certain architect showing how these conceptual immaterial ideas are embodied in material designs. This writing style shows his desire for theoretical and philosophical concepts of multisensory experiences to lead to the tectonic logic of a building; so that the physical, material and tectonic aspects speak to the dialogical nature of architectural experience.

Part II of the book provides the readers with an index of multi-sensory design concepts, their importance and related architecture projects which can be further studied and translated into experiential architecture. This broad range of ideas along with its simplistic language further strengthens the readership to be contemporary emerging ANALYZING 'THE EYES OF THE SKIN'

architects and designers, who can be shaped or inspired by reading this theory. A highly intellectual text with a multitude of philosophical, scientific, art and architectural references, The Eyes of the Skin contains a broad range of ideas and hence could also be considered an academic text.

## **ARGUMENT AND STRATEGIC ROLE OF THEORY**

The Eyes of the Skin classifies as an architectural theory since it discusses a multitude of theories, concepts and architecture projects in relation to their tactile effects and suggests potential manners they can be improved. Pallasmaa questions the relationship between the perception of the superior sense of vision and the sense of touch while also analyzing the role of vision in relation to our practice of architecture. In this manner, the text compels the readers to question the status quo of architecture theory, to incite curiosity regarding sensory experiences and to question one's own conception of their world view. The book becomes a dialogue between the readers and Pallasmaa on the over dependence on eyesight and visual instead of the other senses in architectural design.

The book is divided into two main parts, with the first part containing nine short essays outlining the "hegemony of vision" in contemporary Western culture which emerged since the ancient Greek period. Part I is introduced by quotes from philosophers like Nietzsche and Merleau-Ponty stating the importance of the sense of touch in multiple contexts. The opening quote "The hands want to see, the eyes want to caress." by Johann Wolfgang von Goethe sets the foundations for Pallasmaa's argument. He studies theories from various theorists who support and oppose the privilege of the eye and further goes on to present the emergence of the detached eye from the body's other senses. Pallasmaa discusses primitive construction typologies which were more tactile due to their heaviness and materiality and follows into the creation of the contemporary city that suffers from a torrent of visual stimulation emerging since Alberti in the Renaissance and Brunelleschi's invention of perspective imagery. He accounts this shift to a cold emotionless contemporary city to the shift in architecture materiality and scale; Materials like steel and glass which are widely used nowadays do not age and hence do not allow users

to experience time, depth, and curiosity leading to a purely visual architecture experience vs. a sensual one. Pallasmaa concludes Part I by calling for a balance in the realm of sensory experiences.

Subsequently in Part II of the book Pallasmaa reviews and studies the other senses along with the human body with seven sections each dedicated to a sense. Pallasmaa emphasizes the importance of a "multi-sensory" spatial design in order to experience complete architecture through its material and immaterial constructs by using Gaston Bachelard's concept of the "polyphony of the sense" along with Merleau-Ponty's theory of "the body at the center of perception and experience". He criticizes the loss of privacy and depth in contemporary architecture and attributes the presence of shadow to allow for imagination and magic to happen in a space as used to be incited by chiaroscuro. Pallasmaa concludes Part II by listing various architects whose works have conceptually and architecturally engaged the sensory realm, including Alvar Aalto, Steven Holl and Peter Zumthor; hence ending the discussion of senses with built works whose effects could be studied and replicated in parts:

Frank Lloyd Wright's and Alvar Aalto's architectures are based on a full recognition of the embodied human condition...In today's architecture the multitude of sensory experiences is heightened in the work of Glenn Murcutt, Steven Holl and Peter Zumthor...

Pallasmaa presents a strong argument throughout the book by providing strong supporting references from a wide variety of backgrounds as mentioned earlier. He matches the supporting research with the exact need and meaning of his thoughts. For instance when describing a sensory experience and its beauty, and its effect on memories, he quotes philosophers and poets whose work also capture a similar intangible quality. Whereas when he discusses the human need for sensory experiences he refers to scientific and more journalistic authors whose knowledge provides a solid backing to his claim. Furthermore, by using such a wide palate of references, Pallasmaa indirectly asks the readers to read multiple fields while suggesting the benefits of the same to architectural thought and design. This technique gives his text much strength.

## **DESCRIBING THE ISSUE**

Pallasmaa states that "The current overemphasis on the intellectual and conceptual dimensions of architecture contributors to the disappearance of its physical, sensual and embodied essence" and that contemporary architecture needs to respond to that through intensified materials and designs. However, he also acknowledges that this pattern of development in the sensory realm is not the fault of only "historical privileging of the sense of vision" but stems from important physiological, perceptual and psychological characteristics. Furthermore, this hegemony of vision over the other senses is supported and enhanced by forces external to the architecture world such as capitalist, political and technological forces that hold power. For instance in today's world, building glass and steel buildings has become a sign of development irrespective of the costs and negative effects on climate. Nevertheless, the focus on visual design is not an issue as much as the isolation of designing for the eye without engaging other senses is. The suppression or elimination of other senses restricts the human experience into the directional and limited sphere of vision; which reduces the richness, complexity, and flexibility of the existing world into detachment and isolation.

Pallasmaa believes that much of modern architecture like that of Le Corbusier and Mies Van Der Rohe is a contributor to the privileging of the eye. However, he always employs a duality in his analysis and also explains the tactile characteristics of these modern architects' buildings. "Le Corbusier, however, was a great artistic talent with a molding hand, and a tremendous sense of materiality, plasticity, and gravity, all of which prevented his architecture from turning into sensory reductivism." Through such duality of arguments, Pallasmaa engages the readers to critically think, question and understand the issue at hand.

In addition, Pallasmaa describes architecture as being the mediator between human senses of space, time, touch etc which further poses the importance of a multi-sensory consideration in the design of buildings. However, a setback in his argument is that he does not study the design process of a building as a key part of the process of sensual design. Pallasmaa's argument and references seem to critique mainly the built architecture where instead, he should have focused on the design process of it as well. He could refer to product design as a guiding field which considers human to product interfaces with regards to touch, taste, smell, and sight.

## WRITING STYLE

The Eyes of the Skin communicates Pallasmaa's intentions and ideologies through the language choice, syntax, and structure of information in the book. It also contains a multitude of literary devices that aid in sparking the user's imagination, thus making the text more sensory in an indirect manner. Pallasmaa used two main writing styles: descriptive and narrative. Moreover, he does not write in a didactic and authoritative manner but uses a multitude of voices along with the different writing styles: An intellectual voice of different theorists, a first person voice of him describing his physical experiences in space and a descriptive voice which states his argument and call for change. Furthermore, the clear, concise and somewhat obscure chapter titles act as tiny windows of imaginative insight into the following content to the readers; the general and specific pairing of words to form the titles further provides a sneak peek into his writing style and ideology. Additionally, Pallasmaa begins each section by a clear thesis statement which expresses the content that follows accurately to the readers.

The book contains various literary devices like figurative language, juxtaposition, and dualities to further the reader's understanding of his theory in relation to the philosophical concepts, design references and personal metaphors he draws. Thus also promoting the audience to reflect and form parallels between these different concepts themselves while allowing space for their own imagination. This is further strengthened by his use of philosophical language in his own discourse like "horizon of things" whose figurative meanings are presumed known to the readers. Such a subtle and smart presentation of his ideology makes the readers critically analyze the text; an outcome directly tied to the author's intent. The text is made easy to read through clarity and brevity in language and although he makes multiple references to great philosophers, the text does not become highly academic or complicated for any level of reader. Pallasmaa has suc-

#### ANALYZING 'THE EYES OF THE SKIN'

ceeded in creating a text which can engage multiple levels of intellect from the beginner to advanced equally. His technique of always following a one-line intellectual quotation with a simple meaning of the overall point allows for these references to be expressed in an accessible and relatable manner to the contemporary readers and their environment. Moreover, the use of one-line quotes makes the quotation content more powerful due to it being concise.

Pallasmaa widely uses the technique of juxtaposition of two opposing concepts in multiple chapter titles such as 'Spaces of Scent', 'Images of Action' and 'Taste of Stone', etc. This technique of 'short- circuiting' words together in the heading combines two varying sensory experiences in the readers mind creating an imaginative experience and possibly leading to an out of the box design experience for them. Through these devices of breaking the logical understanding of sensory relationships and distorting experiences, the book sparks a calculated confusion of tactile experiences through the reader's reflection which mirrors and allows understanding of the real life human experience.

Additionally, the Pallasmaa's use of adjectives such as 'ultimate', 'physical', 'noble', 'human', 'missing' and 'homeless' evokes an emphatic reaction towards craving the lost sensory experiences in life.

Furthermore, one of the most simplistic but emotional writing Pallasmaa employs is the use of first person descriptive language with his body as the main subject. An example of such an engaging text is: I confront the city with my body; my legs measure the length of the arcade and the width of the square; my gaze unconsciously projects my body onto the facade of the cathedral, where it roams over the mouldings and contours, sensing the size of recesses and projections; my body weight meets the mass of the cathedral door, and my hand grasps the door pull as I enter the dark void behind. I experience myself in the city, and the city exists through my embodied experience.

This language automatically asks the reader to imagine the sensations of touch Pallasmaa's experiences in the space. These techniques are how he deals with the dis-80 . CARE

crepancy between his choice of medium – literature, an extremely visual medium vs. his argument about the equal importance of all senses. In conclusion, Pallasmaa's various writing styles mirrors real human experiences into the readers mind as they follow through the book. In addition, Pallasmaa could have used a less literary but probably more suitable technique of poetic and descriptive essay writing like Marcel Proust, Gaston Bachelard or other story tellers. Their techniques through the use of language forces the readers to place themselves into the writer's shoes and imagine the author's feelings. An in depth research of varying informal writing styles could have helped Pallasmaa strengthen his message.

## **USE OF IMAGERY**

Throughout the book, after every five-six pages Pallasmaa uses images to reinforce his argument's theory. Although, through the use of a written essay and images as a medium to convey his message the book becomes like a 'silent film', Pallasmaa's use of imagery helps visualize his argument hence leading to strengthen it. He uses images of paintings, photographs, engravings and movies to communicate his idea.

The first use of images we see in the Part I of the book where he begins by using images that convey the idea of architecture as an "art form of the eye" and vision as "the most noble of the senses". The images appear in between the various chapters of a book hence directly pertaining to that part of the essay. The last images in Part I describe the use of the human body as a basic measurement for architectural dimensioning and how "we tend to interpret a building as an analogue to our body and vice versa." These images help conclude the Part I of the book and form a good segway into Part II by indirectly questioning the fact that if the human body is used as a basic architectural measurement tool, why other senses are left out of the design.

The imagery used in Part II is split into two categories, the more descriptive images which envisage the human senses and the stark contrasting void and feeling-less images of modern architecture. The first two images to appear in this part are contrasting images of the "city of sensory engagement and the modern city of sensory

deprivation". These make visible to the readers the key importance in Pallasmaa's call for sensory experiences. Finally, Pallasmaa ends the book with images of what he considers architecture designed to be experienced; Images of Peter Zumthor's Thermal Vals and Alvar Aalto's Villa Mairea. These images remain in the reader's mind as potential references for their future designs and hence communicating Pallasmaa's intention successfully.

## **GRAPHIC LAYOUT**

Following a complex writing style to raise questions and imagination, Pallasmaa follows a simple and neutral graphical layout and typography choice. This choice allows for the content to have primary importance without entangling the reader into unnecessary complications. However, Pallasmaa does ironically does use visuals from art to further communicate multi-sensory ideas regarding touch and other senses. These images act as anchor points in theory since they help the readers relate the idea to historic references and provide a mental connection to the existing concepts. Nevertheless, Pallasmaa's use of descriptive text and smart verbal juxtapositions prove stronger in creating mental images than the use of visuals.

However, graphic design tends to use techniques of writing which convey a different messages, different ways of reading the text : I AM SCREAMING vs. I am screaming, will both be read in different ways one as a loud angry voice and the other as a feminine soft voice. Pallasmaa could have used engaging graphical layouts to supplement the strength of the suggested emotions through complex bold vs. light fonts in the titles, the simple use of italicized text or juxtaposition of multiple fonts or the use of white text in a dark background to emphasize the importance of shadows or through the use of different paper types for different parts of the book.

Furthermore, we see irony in his call for multi-sensory design and the use of a highly visual medium to do so. Since he is calling for a non-normative design aesthetic which places itself as an outlier or uncommon in the architectural design world, it leads to the question that Pallasmaa's book could have also been a graphical outlier in the world of architectural theory by the use of a simple variety of graphic design, mixed media and writing techniques to convey the message. This strategy can strengthen Pallasmaa's argument even more instead of the book being a normative theory book.

## CONCLUSION

In conclusion, The eyes of the skin presents itself as a 'subtle manifesto' which critically studies the contemporary architecture and calls architects to better understand the human condition so as to be able to create more human designs which mediate between people and structures. Pallasmaa ends the book by discussing the architecture of Glenn Murcutt, Steven Holl and Peter Zumthor as architects which design for multitude of senses; thus creating "architecture of the senses". He concludes the book by further stressing the urgency of his theory by stating Frank Lloyd Wright's words from 1954 : "What is needed most in architecture today is the very thing that is most needed in life - Integrity. ... Stand up for integrity in your building and you stand for integrity not only in the life of those who did the building, but socially a reciprocal relationship is inevitable." Throughout the book Pallasmaa mentions the importance of interaction of senses for human experience and his writing style provides the readers with imagery from Pallasmaa's experience. According to him, this tactile and haptic senses provide a fully embodied experience, which is extremely necessary for human wellbeing and also because according to Pallasmaa, muscular and tactile memories are more long lasting and integral to the human character. Using intellectual and descriptive theories, The Eyes of the Skin explains the importance of multi-sensory experiences in a clear and understandable manner.

However, the declaration of the same issue by Frank Lloyd Wright over a half century ago followed by Pallasmaa's urgent call over twenty years ago has not led to any significant changes in the ocularcentrisim of the architectural field, we see that majority of contemporary architecture is still based on the visual and this importance of the image is actually increasing rather than decreasing. Does this existence of the same issue from a long time ago suggest an ineffectiveness of Pallasmaa's theory or the expendable quality of multi-sensory experiences for human beings?



ADVANCED ARCHITECTURE DESIGN STUDIO Summer 2019 Instructors : Ana Paula Ruiz Galindo, Mecky Reuss In collaboration with Shanti Gollapudi

Social anxiety can disrupt a person's regular flow of life while making daily tasks seemingly difficult. With social anxiety being the most common anxiety disorder in the world after 'specific phobias', our proposal is an entertainment device for millennials with social anxiety using entertainment as a distraction through sensory and physical engagement. The experience will follow a path of colors and complementary activities. This is used to intensify feelings from calmness to ultimate distraction in order to divert the user's social anxiety. Hidden in the berms of the garden on Roosevelt island, the device is allows the users to arrive and depart discretely. The journey starts alone and gradually exposes the participant to one more participant, ending in a space with all the participants together guided to communicate with each other in order to activate the device and complete their journeys. The participants may continue their conversations outside in the seating amphitheater or discreetly exit through the berms and disappear into the park as another park visitor.



## DISTRACTION AS ENTERTAINMENT

Millennial, the most anxious generation, enjoy being part of the trending collectives. They believe in being part of communities in order to share their joys & miseries, engage with those going through the same experiences and form a safe space together. The device caters to the needs for millennial with social anxiety. As suggested by the ADAA, to feel a sense of enjoyment, socially anxious people need to feel comfortable, safe and distracted from the sense of anxiety. Hence the device proposes distraction as entertainment.

**COLLECTIVE SUPPORT** 

MILLENIALS WANT

TO FEEL WANTED

"The proposal will create a safe space for the socially anxious millennials by allowing them engage with those undergoing the same feelings collectively or isolated as per their comfort."



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CHROMO THERAPY - Color studies were carried out in order to study their effect on peers. Humans respond to hues and saturation of a color in physiological and emotional manners. Kandinskys associations of form with color and various ways to use colors for architecture. Blue with circle because it's a more calmer color, Yellow is more exciting and hence a triangle and red in between with a square and balanced color. Balanced and harmonious color combinations allow for the control of emotions through the spaces.

To use color to increase the effect of the activities and produce a desired mood, we gathered existing studies about the effects of colors on people. In the book 'The Complete Color Harmony - Tina Sutton & Bride M. Whelan' the following were described: Hot colors - Red increases heart rate, blood pressure - Stimulates the nervous system. Cold colors - Blue slows metabolism and increases one's sense of calm. Warm colors - Red orange yellow - comforting spontaneous and welcoming - radiates outward and surrounds everything in reach. Cool colors - blue green light green - Feel renewed, sense of depth as well as comfort. Light colors - pastels - suggest airiness, rest and liquidity. Dark colors. Pale colors -65% white in their composition, calming colors. Bright colors - amount of pure color within a hue determines its brightness. Vivid colors - attract attention. To specify multiple colors for our architectural device we studied different color schemes. Analogous scheme: Use any 3 consecutive hues. Complementary scheme: Use direct opposites on the color wheel. Clash scheme: combines a color with the hue to the right or left of its complement on the color wheel. Monochromatic scheme: Uses I hue in combination with any of all of its tints and shades. Split complementary scheme: consists of a hue and the 2 hues on either side of its complement. Halftone and Duotones. Green - Physically the most relaxing and calming color in the spectrum.

"What did the colors make you feel? Chromotherapy uses colors to create desired emotions and increase 11 11 1 11 11 effectiveness of activities.





COLORED DISTRACTION

	COLORED DISTRA

Courage, motivation, simulation



Happy, Creative & Simulation



















#### SOCIAL ACTIVITIES

In order to changing the users views about themselves and their expectations in social interactions, the device curates social situations through gradual exposure in order to provide a safe practice space. Through distracting activities and colors, the users will be pushed out of their comfort zone to achieve a sense of empowerment and increase in self esteem. Behavioral therapies for social anxiety force the participants to partake in simple social interactions and practise their social skills.



"Using behavioral therapy activities, the users will be exposed gradually to carefully curated interactions in the device. This will allow them to practice social skills in a safe and guided environment."

Being put on the spot











GRADUAL EXPOSURE TO PEOPLE



CURATED JOURNEY OF DISTRACTED EMOTIONS

### HIGHER LEVEL PLAN

The journey through the device : The user diagnosed with a higher social anxiety has to arrive on the higher entrance, trekking up to the gate. On arrival they would be shown how to leave the device at any time through designated safe spaces. The journey begins through a calm and meditative blue space alone. Next the space forces them to walk in power poses which are scientifically proven to instantly boost confidence levels these spaces would be in blue and orange colors to provide calm and energetic sense.



COLORED DISTRACTION

## MIDDLE LEVEL PLAN

The varying levels of the device provides an extra sense of movement for the users. Thus adding to their distraction through physical movement. Moreover, the use of levels and the location of device in the hilly berms allows for the device to be hidden from outside view.



COLORED DISTRACTION

## LOWER LEVEL PLAN

In the next space they would discover another fellow participant in the space under them. The two participants are encouraged to participate in small talk with prompts and sounds. After 10 minutes in this space the lower participant gets lifted into the higher. The following spaces encourage physical activity leading to high adrenaline levels and hence creating a distraction for the users from any social anxiety caused due to meeting the other user. Activities such as hopscotch, dancing and jumping are prescribed.





SPACE I : CALM SPACE



SPACE 2 : DISCONNECT POWER POSE SPACE



SPACE 3 : DELIGHT MOVEMENT SPACE



SPACE 3 : DELIGHT DANCING SPACE

#### SPACES WITH MULTIPLE USERS

The spaces where two users are introduced to one and other are created as high physical activity spaces, allowing them to be distracted through movement along with more energetic spatial colors. These spaces are open to views, hence allowing each pair to view the others as a form of social introduction from afar. Moreover, the design of each space provides a preview into the next space through color leakage which also become a manner to expose the users to the next step





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#### SPACE 4 : ULTIMATE DISTRACTION

Upon entering the final space, the users are forced to make loud the users are forced to make loud sounds or talk as a group in order to activate the space. Through the sound activated light floor would light up and create a beautiful distracting kaleidoscope. When content with the space, the participants may continue their conversations outside in the seat-ing amphitheater or discretely exit through the berms and disappear into the park as another park visitor.

> "The users will le and experiences

vice powered them to take part in mo activities."





## Shailee Kothari

COLUMBIA GSAPP M.S.AAD 2020