University of Cincinnati

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I, Meredith Miller, hereby submit this original work as part of the requirements for the degree of Master of Architecture in Architecture.

It is entitled:

Fashion & Architecture

Student's name: **Meredith Miller**

This work and its defense approved by:

Committee chair: Udo Greinacher, M.Arch.

Committee member: Vincent Sansalone, M.Arch.

UNIVERSITY OF Cincinnati

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Fashion & Architecture

by

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B.A. Architecture, 2012

A thesis submitted to the graduate school of the
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Thesis Member: Stephen Slaughter

ABSTRACT

Architectural theory has illuminated the inherently connected relationship between fashion and architecture. Both disciplines shelter the body, react to spatial volume, rely on a process, and take a work of creativity from its two-dimensional concept into a three-dimensional reality. They affect and are effected by current economies, politics, and cultural situations while concurrently operating outside of them at the same time. Through these similarities a disparity is revealed. Beyond a difference in scale, fashion endures in an ephemeral landscape grasping for the next innovation, rejecting past notions, altering perspective every few months. Architecture produces at a slower rate establishing a permanence and solidity in volume that is free from defined intervals of creative development and exhibition. It reacts to seasons defined by the climate rather than the fashionable elite. Designing architecture for fashion today, utilizing this temporal discrepancy, will reach beyond the surface correlations of the disciplines and speak to the experiential quality of a space transitioning through the transient perceptions of time. Architecture will become more than a space for a community to occupy but it will retain an intangible quality, a mindset reflective of the organization it symbolizes. To apply this methodology, an algorithm and process for an architecture for fashion will be designed, generating spaces for making, exhibiting, and archiving as a representation of fashion. Experiential architecture promoting perspective beyond surface similarity will establish a dynamic environment intermediating between fashion and architecture for a fashion of architecture.

IMAGE 01
ARCHITECTURE AS WEARABLE OBJECT #1

Chapter 1

Introduction

PREFACE

Fashion and architecture are both based on basic life necessities – clothing and shelter. However they are also forms of self-expression – for both the creators and consumers. Both fashion and architecture affect our emotional being...On a deep level, fashion and architecture have less to do with luxury and design, but everything to do with feeling comfortable in your own skin and in your habitat.[1]
– Karen Moon of StyleMusée

A connection between fashion and architecture was established as far back as the Greeks who applied gender to columns and emulated fabric into its fluting. Gottfried Semper is renown for his writings in *The Four Elements of Architecture* and *Style in the Technical and Tectonic Arts or Practical Aesthetics*; he argues that woven textiles and the use of carpets as spatial dividers are the origins of architecture and dress.[2] He continues that from the beginning of historical understanding carpets and skins were primarily used to define space and to protect, dominating the need to clothe humans. The use of carpets continued in tradition and applied to the interior and exterior of buildings, masking, or veiling structure.[3] Adolf Loos in *The Principle of Cladding* also expresses this masking, "man sought shelter from inclement weather and protection and warmth while he slept," with the need for shelter man then searches for a frame to provide a volume of protection for a family.[4]

1 Chan, Kelly. "Finding Architecture in Fashion." Architizer. April 16, 2012. Accessed October 13, 2015. http://architizer.com/blog/stylemusee-interview.
2 Semper, Gottfried. "The Four Elements of Architecture" and "Style in the Technical and Tectonic Arts or Practical Aesthetics." The Four Elements of Architecture: And Other Writings. Translated by Harry Francis. Mallgrave and Wolfgang Hermann. Cambridge: Cambridge Univ. Press, 1989. 101-110, 126-129, 246-258.
3 Ibid, 254-255.
4 Loos, Adolf. The Principle of Cladding. Neue Freie Presse, 1898. 66.

IMAGE 02
STRUCTURE #1

These excerpts speak to the parallel development of fashion and architecture as akin subjects. In the contemporary writing *Skin & Bones: Parallel Practices in Fashion and Architecture*, a catolog from an exhibit of the same name at the Museum of Contemporary Art Los Angeles in 2006, Brooke Hodge writes "both [fashion and architecture] protect and shelter, while providing a means to express identity."[5] In an article entitled "When Fashion Meets Architecture," Massimo Nicosia, head of design at the fashion brand Pringle of Scotland, reflects a similar disposition, "Fashion designers work with silhouettes and architects work with volumes. Ultimately it is the same thing. We all work to generate forms and shapes...just in a very different size and scale."[6] Additionally, fashion shield a human body while architecture encapsulates multiple.

Both disciplines also share the fact that they are reactionary to cultural conditions and norms — whether that be in concurrence or in contra. Economic, political, religious, and climatic factors affect the ebb of flow of trends in both fields. In two-dimensional to three-dimensional translations they negotiate and dictate a position on contemporary subjects — firmly placing these disciplines as a snapshot of cultural identity at their creation and in prediction of the future. Fashion and architecture benefit from operating outside of the art world but in parallel where they comment on circumstances yet achieve an alternate and essential function for sheltering.

5 Hodge, Brooke, and Patricia Mears. Skin Bones: Parallel Practices in Fashion and Architecture. Compiled by Brooke Hodge. New York: Thames & Hudson, 2006. 11.

6 Cobb, Ben. "When Fashion Meets Architecture." Dazed. January 20, 2014. Accessed March 09, 2016. http://www.dazeddigital.com/fashion/article/22652/1/when-fashion-meets-architecture.

BACKGROUND

Today...stereotypical respresentations of identity seem antiquated and even politically incorrect, but architecture continues to serve as an assertion of identity or place in the world. For instance, Prada's commissioning of OMA/Koolhaas and Herzog & de Meuron to design major retail spaces underscores the company's identity as a purveyor of sophisticated cutting-edge in both fashion and architecture.[7]

Fashion and architecture have developed simultaneously through history although they have had a recently generated a forced realtionship. Fashion uses "architectural" to refer to structured pieces while architecture "weaves," "drapes," and "threads" itself into the urban fabric. This lexicon is a superficial treatment for the apparent similarities between the two, degrading their interrelated relationship. Even in contemporary architecture examples of a blend between the disciplines act merely as large verisons of fashion rather than representing a deep understanding of the intersection of the disciplines. Christian de Portzamparc's House of Dior in Seoul and Frank Gehry's Foundation Louis Vuitton embody this shallow understanding where the architecture reflects fashion only in form and descriptive terminology. They create grand gestures to mask the trivial nature of the architecture. Where a deeper connection may be found is designing for the temporal distinctness in fashion from architecture — capitalizing on the unique rates for developing new designs and the differing perceptions of time for each study.

In reacting to speed and reinvention the study of architecture will also benefit

7 Hodge, Brooke, and Patricia Mears. Skin Bones: Parallel Practices in Fashion and Architecture. Compiled by Brooke Hodge. New York: Thames & Hudson, 2006. 17.

IMAGE 03
CHRISTIAN DE PORTZAMPARC'S HOUSE OF DIOR IN SEOUL, KOREA

IMAGE 04
FRANK GEHRY'S FOUNDATION LOUIS VUITTON IN PARIS, FRANCE

from this thesis of investigation. In fashion these qualities require designers to turn their backs on their own world rejecting the current trends every few months for inspiration from contemporary culture (i.e. sustainability, econmic changes, et cetera). Thus fashion becomes the prevailing perspective on the cultural reality. Creating an architecture for fashion for today must reflect this understanding of the moment and bifurcated perspectives of speed and time to manifest this. Going beyond jargon and mimicry, architecture for fashion may then create an experience that enlightens the change in perception from the architectural world into the fashion world.

As a model for architecture for today, this methodology of perspectives of time and cultural relevance will begin to reinstate architecture as a manifestation of the world at its time, or as a reaction to cultural maladies rather than maintaining architecture as a discipline for shallow interpretation and little contemporary relevance.

PROBLEM

the structures that direct the fashion system...have a profound, though hushed and even denied, effect among the producers of architecture[8]

the challenge is to understand architectural practices as power-laden cultural practices that are deeply affected by larger historical forces... but also as practices that have their own specificity and social effects – even if they are not the kind of effects one approves of.[9]

[Fashion's] insistence on its own inevitability as a cultural artifact is at once charming and threatening.[10]

Historic architectural discourse has made apparent parallel associations between fashion and architecture, although what is most intriguing is where they diverge. It is clear that scale plays a strong role in this difference; fashion sized for a single body has the ability to create prototypes of their design development and test proportions, details, and material options at full scale while manipulating by hand. On the other hand architecture, being for multiple bodies must rely on three-dimensional representations on computer for form or models at smaller scales, only producing a full size version of details rather than the whole.

Another divergence between the disciplines is the perspective of time. Fashion endures in an ephemeral landscape grasping for the next innovation, the next trend. It consistently rejects its past variations on style as démodé, shifting perspective every

8 Warke, Val K. "'In' Architecture: Observing the Mechanisms of Fashion." Architecture, in Fashion. Edited by Deborah Fausch. New York: Princeton Architectural Press, 1994. 131.
9 West, Cornel. "Race and Architecture." The Cornel West Reader. Basic Books, 1999. 456-462.
10 Warke, Val K. "'In' Architecture: Observing the Mechanisms of Fashion." Architecture, in Fashion. Edited by Deborah Fausch. New York: Princeton Architectural Press, 1994. 135.

four months according to the fashion calendar. Architecture produces at a slower rate due to regulations and scale establishing a permanence and solidity in volume while tackling government restrictions, client needs, and coordination of engineering systems beyond the design intent. Architecture builds from history while adapting to contemporary technology and climate considerations. Fashion experiences design seasons but in advance of the actual season by about six months. For example, fall and winter is presented in February and March for women's wear, while architecture is typically reacts in real-time to temperatures and seasons.

Designing an architecture for fashion must negotiate straying perspectives on time and blend temporal sensitivities. The situation is best described in an except from Alan Lightman's text *Einstein's Dreams* where neighbor towns feature a similar dissonance in time:

> In this world, time is a local phenomenon. Two clocks close together tick at nearly the same rate. But clocks separated by distance tick at different rates, the farther apart the more out of step. What holds true for clocks holds true also for the rate of heartbeats, the pace of inhales and exhales, the movement of wind in tall grass. In this world, time flows at different speeds in different locations.[11]

If "clock" were interpreted as architecture's standard of time and fashion's distinct calendars, then one may understand how divergent their senses of time are. Thus in integrating the two disciplines together they may find a harmonious temporal balance in order to elevate eachother through a rekindled artistic connection.

> As he moves from one timescape to the next, the traveler's body adjusts to the local movement of time. If every heartbeat, every swing of a pendulum,

11 Alan Lightman, "20 June 1905," in Einstein's Dreams (New York: Pantheon Books, 1993), 153-154.

> every unfolding of wings of a cormorant are all haromized together,
> how could a traveler know that he has passed to a new zone of time?[12]

Steven Holl remarks on this interdisciplinary approach to the arts in relation to his collaboration with choreographer and dancer Jessica Lang, "If we don't intermix the arts and collaborate, we are going to close... The arts are going to fade out individually. We are stronger together."[13]

The problem exposes itself: How can architecture react to a different perception of time — thus going beyond the surface correlations to fashion established by contemporary example and lead a future of experiential design related to the client's mentality.

Proceeding through a process, this theis will develop an investigation of fashion and architecture with the goal of achieveing an architecture for fashion.

12 Lightman, Alan P. "20 June 1905." Einstein's Dreams. New York: Pantheon Books, 1993. 155.
13 Rosenfield, Karissa. "Steven Holl Interview: Not a 'Signature Architect' — Andrew Caruso." ArchDaily. September 02, 2012. Accessed March 09, 2016. http://www.archdaily.com/269251/steven-holl-interview-not-a-signature-architect-andrew-caruso.

IMAGE 05
BLACK ICEBERG #1

Chapter 2

Fashion and Architecture

FASHION AND ARCHITECTURE

The role of architects need no longer involve the entire fabric of buildings. It can now address in lesser or greater depth the synergy between the interior and the exterior, from the surface of the envelope through to the entire fabric.[1]

To the untrained eye, fashion and architecture may be perceived to live in separate worlds, as distant cousins who share a similar ancestry yet operate independently. In academic institutions the closest relationship they have may be that they are housed within the same school but rarely are there courses or modes of study to build a correlation between the two. This suggests a superficial understanding of two intimately related disciplines and a denial of immense interdisciplinary collaboration.

In this thesis fashion refers to the industry and process of creating garments and collections as well as to the style and trends at a particular point in time. Formal definitions, that apply, from the Oxford English Dictionary are as follows:

noun
1. The action or process of making
2. Make, build, shape.
3. a) A particular make, shape, syle, or pattern.
   b) With reference to attire: a particular 'cut' or style.
8. c) With regard to apparel or personal adornment.
9. a) Conventional usage in dress, mode of life, etc.
   b) Fashionable people; the fashionable world.
   c) High Fashion[2]

1 Moussavi, Farshid. "The Function of Ornament." The Function of Ornament. Edited by Farshid Moussavi and Michael Kubo. Actar, 2006. 7.

2 "fashion, n." OED Online. December 2015. Oxford University Press. Accessed January 26, 2016. http://www.oed.com/view/Entry/68389?rskey=JShmHm&result=1&isAdvanced=false.

While architecture is used in conjuction with the designing and constructing of a building and as a reference to those with significance and usefullness behind them. Applicable definitions from the Oxford English Dictionary:

noun
1. The art or science of building or constructing edifices of any kind for human use.
2. The action or process of building.
3. Architectural work; structure, building.
5. Construction or structure generally.[3]

Kindred in nature, fashion and architecture's inter-woven principles provide an equal foundation for their innovation, appreciation, and implementation. The following outlines a refined list of underlying fundamentals:

Dissemination of culture
Importance of gravity
Sheltering of volume
Reinvention and creative deconstruction
Two-dimensional concept translated into three-dimensional object
Relationship between form and function
Collective identity externalized
Material as form
Protection
Structure
Design influences (aesthetic, theory, technology, history)

Although the argument is made clear that fashion and architecture are deeply related, considering they are different disciplines, divergences exist as well. Here a

3 "architecture, n." OED Online. December 2015. Oxford University Press. Accessed January 26, 2016. http://www.oed.com/view/Entry/10408?rskey=DPon4Z&result=1.

refined list explains some contrasting aspects (fashion *versus* architecture), with a clear understanding, though, that there are gray areas between these differences:

Rapid style shifts *versus* small and slow style adjustments
Constructed at actual size *versus* designed to a smaller scale
Mockups created in muslin/fabric *versus* mockups created in chipboard/ representation
Ephemeral in nature *versus* eternal in nature
Illustrative renderings as dominant visualization style *versus* photorealistic renderings as dominant visualization style
Refined by hand *versus* refined through the computer manipulation
Perceived as superficial *versus* perceived as monumental
Soft and fragile *versus* rigid and durable
Volume for one body *versus* volume for many bodies
Designed using materials at hand (mainly fabric/accoutrements) *versus* designed with abstract materials at hand (mainly chipboard/foam board/plastic/computer software)
Follows own prescribed calendar predetermines reaction to seasons *versus* follows project timelines and reacts to seasson in real-time

This thesis studies the architectural outcome of these similarities and divergences between fashion and architecture. Continually representing both disciplines in the creation of an architecture which houses a fashion design fabrication lab. The facility entails a studio for design and production (make space), a display for runway shows and presentations (exhibit space), and a preservation zone for archives (save space).

An algorithm has been developed to process through the necessary steps for this discovery. Initially architecture and fashion were taken as separate entities, but after the examinaion of similarities and differences (as noted above) these ideas were filtered through their shared quality of cultural significance and their speed and

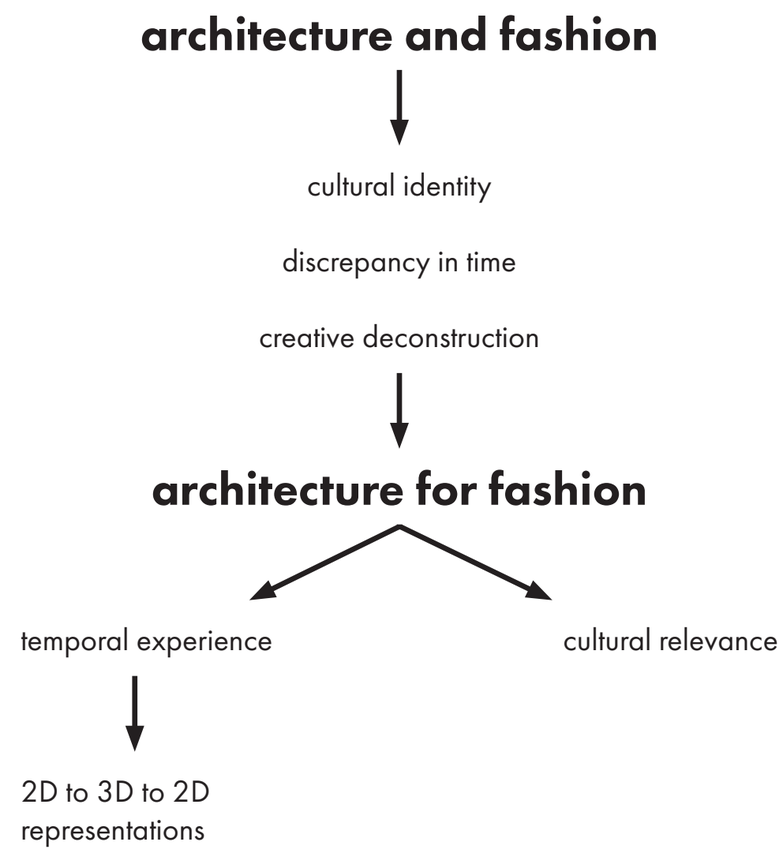


IMAGE 06
PROCESS DIAGRAM

IMAGE 07
2D, 3D, TEXT

discrepancy in time. In reaction an architecture for fashion will be formed relating to the temporal experience and cultural relevance of the two. In the process there exists a constant wavering from two-dimensional to three-dimensional to two-dimensional representations, to generating a harmonious coagulation of the studies. These being to be made clear through a series of three sketchy three-dimensional representaions:

1. a flat piece of muslin representing two-dimensional inquiry and a sketch material for fashion, and a cube, a primitive architectural shape enclosing space and generating form out of chipboard (architecture's sketch material)
2. the muslin simply placed overtop the cube, draping down the sides, but resisting the form of cube slightly to create a stiff drape as thus simultaneously holding on to its two-dimensional shape
3. The muslin as stated in (2) is coated in plaster and left to dry overnight, softened by the wet plaster, the muslin softly drapes over the cube sharing in its form and volume. After drying the cube is removed yet the plaster-coated-muslin stands alone forming a new architecture reminiscent of the foundation and of a new variety.

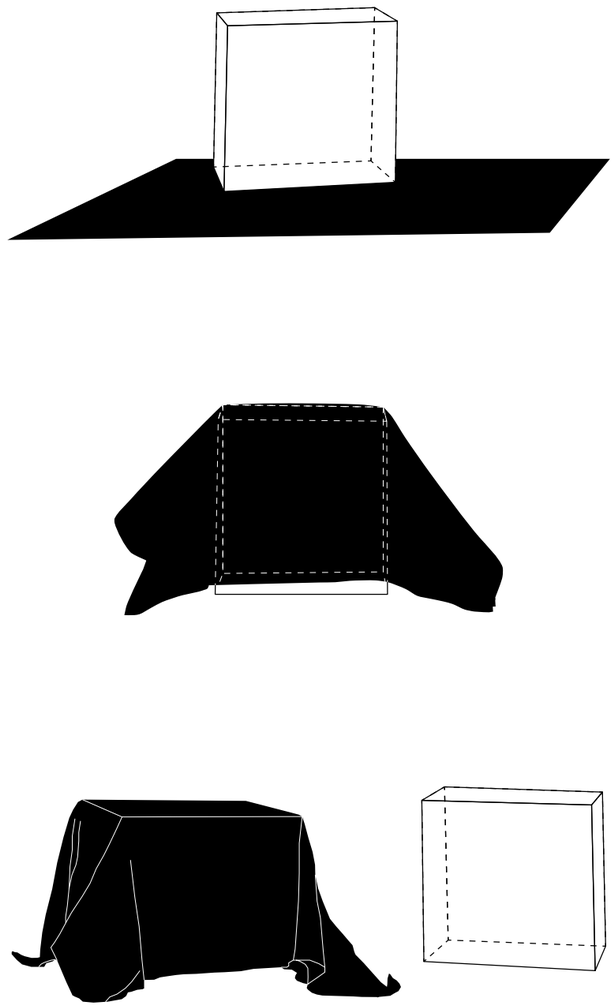


IMAGE 08
DRAPE EXERCISE

IMAGE 09
ARCHITECTURE AS WEARABLE OBJECT #3

ARCHITECTURAL FASHION AND FASHIONABLE ARCHITECTURE

Just as dress can be adopted and adapted as a means of personal expression, architecture has been used to express collective identity, values, and status. For example, nineteenth-century bank buildings were invariably built of stone and featured classical columns and a pediment; the timelessness of these classical architectural elements and the solidity of the materials reassuringly suggested the security and permanence of the institution to its clients.[4]

According to the Oxford English Dictionary fashionable is defined as "observant of or following *the fashion*; dressing or behaving in conformity with the standard of elegance current in upper-class society,"[5] and architectural is defined as "of, relating to, or according to, architecture...Of furniture or other household objects: resembling architecture in style or ornament."[6] But when architectural is used to describe fashion and when fashionable is used to describe architecture, the understanding of these expressions change and become unrefined. In contemporary discourse architectural fashion and fashionable architecture conjure up images such as: structural garments, geometric fabric, and three-dimensional printed textiles or sweeping, curvy, object-like buildings with romantic, gestural shapes. A unique situation stands out from this relevation, two very different qualities of spatial definition have been defined by the organization and use of the terms. But these exhibit surface-level, superficial understandings of how the disciplines overlap and influence/

4 Hodge, Brooke, and Patricia Mears. Skin Bones: Parallel Practices in Fashion and Architecture. Compiled by Brooke Hodge. New York: Thames & Hudson, 2006. 16-17.

5 "fashionable, adj. and n." OED Online. December 2015. Oxford University Press. Accessed January 26, 2016. http://www.oed.com/view/Entry/68392?redirectedFrom=fashionable.

6 "architectural, adj.". OED Online. December 2015. Oxford University Press. Accessed January 26, 2016. http://www.oed.com/view/ Entry/10403?redirectedFrom=architectural.

IMAGE 10
FASHIONABLE ARCHITECTURE, ARCHITECTURAL FASHION

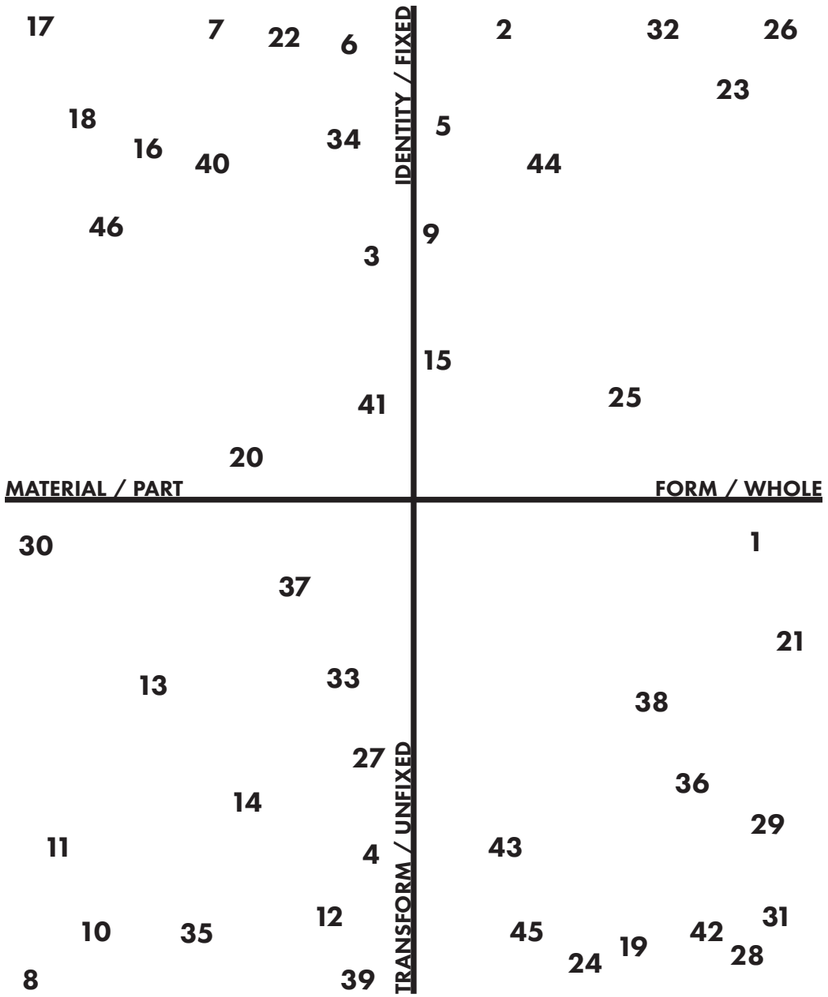


IMAGE 11
PRECEDENT ANALYSIS (6 PAGES)

1 aedas
al bahar tower

2 alfred berger & tiina parkkinen
nordic embassy — berlin

3 apple stores

4 barkow leibinger
kinetic wall

5 bohlin cywinski jackson
apple fifth ave

6 caroline mccall
downton abbey costume

7 catholic school uniforms
in the u.s.

8 christopher haas
triangle of squinches

9 comme des garcons
destroy

10 diller scofidio renfro
blur building

11 doris kim sung
bloom

12 elegant embellishments
torre de especialidades

13 elena manferdini
clad cut

14 elisa strozyk
wooden fabric

15 frank gehry
gehry residence

16 future systems
selfridges dept store

17 herzog & de meuron
dominus winery

18 herzog & de meuron
ebserswalde technical school

19 hussein chalayan
convertible table/skirt

20 indian saris

21 issey miyake
pleats please

22 ivanka
concrete fashion

23 izzy camilleri
iz adaptive

24 j. meejin yoon
the mobius

25 jean nouvel
institut du monde arabe

26 mckim, mead & white
girard bank

27 nlé
makoko floating school

28 penda
bauhaus museum

29 populous
london olympic stadium

30 pringle of scotland
autumn/winter 14

31 rem koolhaas
prada transformer

32 renzo piano
tjibaou cultural center

33 ryuji nakamura
pond

34 sanaa
glass pavilion — toledo

35 sean godsell
rmit design school

36 sheena matheiken
the uniform project

37 so-il
storefront for art & architecture

38 steven holl & vito acconci
storefront for art & architecture

39 tess giberson
autumn/winter 03/04

40 tess giberson
moments spring/summer16

41 thomas heatherwick
uk pavilion at shanghai expo 2010

42 thomas heatherwick
rolling bridge

43 toyo ito
forum for music, dance, & visual culture

44 viktor and rolf
russian doll

45 zaha hadid
london aquatics center

46 zumthor
therme bath vals

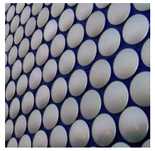
MATERIAL & IDENTITY
PART & FIXED

APPLE STORES

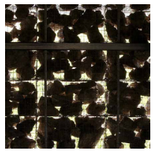
CAROLINE MCCALL
DOWNTON ABBEY
COSTUMES

CATHOLIC SCHOOL
UNIFORMS
IN THE UNITED STATES

FUTURE SYSTEMS
SELFRIDGES DEPT STORE



HERZOG & DE MEURON
DOMINUS WINERY



HERZOG & DE MEURON
EBSERSWALDE TECHNICAL
SCHOOL

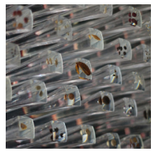
INDIAN SARIS

IVANKA
CONCRETE FASHION

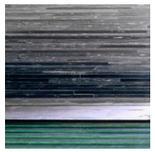
SANAA
GLASS PAVILION -
TOLEDO

TESS GIBERSON
FALL/WINTER 15

THOMAS HEATHERWICK
UK PAVILION - SHANGHAI
EXPO 2010

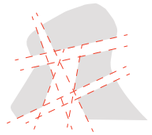


ZUMTHOR
THERME BATH VALS

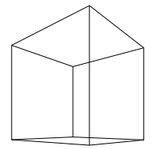


IDENTITY & FORM
FIXED & WHOLE

ALFRED BERGER & TIINA
PARKKINEN NORDIC
EMBASSY - BERLIN



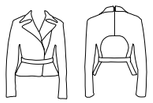
BOHLIN CYWINSKI
JACKSON
APPLE FIFTH AVENUE



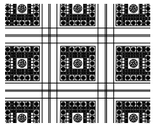
COMME DES GARCONS
DESTROY

FRANK GEHRY
GEHRY RESIDENCE

IZZY CAMILLERI
IZ ADAPTIVE

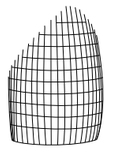


JEAN NOUVEL
INSTITUT DU MONDE
ARABE



MCKIM, MEAD & WHITE
GIRARD BANK

RENZO PIANO
TJIBAOU CULTURAL
CENTER

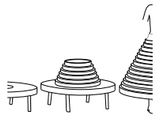


VIKTOR AND ROLF
RUSSIAN DOLL

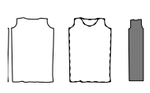
FORM & TRANSFORM
WHOLE & UNFIXED

AEDAS
AL BAHAR TOWER

HUSSEIN CHALAYAN
CONVERTIBLE TABLE/
SKIRT

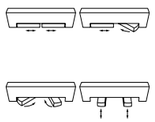


ISSEY MIYAKE
PLEATS PLEASE

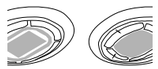


J. MEEJIN YOON
THE MOBIUS

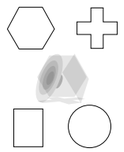
PENDA
BAUHAUS MUSEUM



POPULOUS
LONDON OLUMPIC
STADIUM

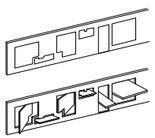


REM KOOLHAAS
PRADA TRANSFORMER



SHEENA MATHEIKEN
THE UNIFORM PROJECT

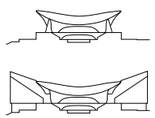
HOLL & ACCONCI
STOREFRONT FOR ART &
ARCHITECTURE



THOMAS HEATHERWICK
ROLLING BRIDGE

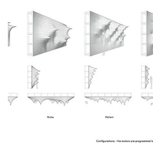
TOYO ITO
THE FORUM

ZAHA HADID
LONDON AQUATICS
CENTER

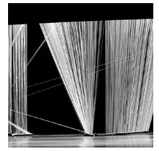


TRANSFORM & MATERIAL
UNFIXED & PART

BARKOW LEIBINGER
KINETIC WALL



CHRISTOPHER HAAS
TRIANGLE OF SQUINCHES



DILLER SCOFIDIO RENFRO
BLUR BUILDING

DORIS KIM SUNG
BLOOM

ELEGANT
EMBELLISHMENTS
TORRE DE ESPECIALIDADES

ELENA MANFERDINI
CLAD CUT

ELISA STROZYK
WOODEN FABRIC

RYUJI NAKAMURA
POND

SEAN GODSELL
RMIT DESIGN SCHOOL

PRINGLE OF SCOTLAND
AUTUMN/WINTER 14

SO-IL
STOREFRONT FOR ART &
ARCHITECTURE

TESS GIBERSON
AUTUMN/WINTER 03/04

inspire each other. In this way, the imagery aroused by this investigation is thus denied as a true example of fashion and architecture in a deep rooted unity.

In order to fully understand this quality, integral to the discussion of fashion and architecture as similar and diverging disciplines, one must dive deeper into these separate deviations. A study of precedents that take on a blended quality of fashion and architecture make present the overlapping features in these objects, textiles, forms, and innovations. "Architecture" has been reduced down to the concept of identity/fixed and form/whole — capturing the qualities of rigidity, culture, shelter for many, and monumental. On the other hand "fashion" has been simmered down to transformation/unfixed and material/part — soft, ephemeral, layered, and small in scale. With these poles, identity/fixed versus transformation/unfixed and form/whole versus material/part, a matrix was constructed to study the impact of these qualifications on a series of precedents taken from fashion and architecture. These 46 projects were derived from Skin & Bones etc. etc. as well as from contemporary projects that exhibit a cross-over between fashion and architecture.

Analyzing precedents through the use of a matrix allows for comparisons amongst similar and dissimilar attributes to occur graphically in their organization between the quadrants.

Material/Part x Identity/Fixed

Apple stores — architecture

Caroline McCall, Downton Abbey costumes — fashion

Catholic School Uniforms, U.S. — fashion

Future Systems, Selfridges department store — architecture

Herzog & de Meuron, Dominus Winery — architecture

Herzog & de Meuron, Ebserswalde Technical School — architecture

Indian Saris — fashion

Ivanka, Concrete Fashion — fashion

Sanaa, Glass Pavilion, Toledo — architecture

Tess Giberson, Moments Spring/Summer 2016 — fashion

Thomas Heatherwick, UK Pavilion at Shanghai Expo 2010 — architecture

Zumthor, Therme Bath, Vals — architecture

Identity/Fixed x Form/Whole

Alfred Berger & Tiina Parkkinen, Nordic Embassy, Berlin — architecture

Bohlin Cywinski Jackson, Apple Fifth Ave — architecture

Comme des Garcons, Destroy — fashion

Frank Gehry, Gehry Residence — architecture

Izzy Camilleri, Iz Adaptive — fashion

Jean Nouvel, Institut du Monde Arabe — architecture

McKim, Mead, & White, Girard Bank — architecture

Renzo Piano, Tjibaou Cultural Center — architecture

Viktor and Rolf, Russian Doll — fashion

Form/Whole x Transform/Unfixed

Aedas, Al Bahar Tower — architecture

Hussein Chalayan, Convertible table/skirt — fashion

Issey Miyake, Pleats Please — fashion

J. Meejin Yoon, The Mobius — fashion

Penda, Bauhaus Museum — architecture

Populous, London Olymipic Stadium — architecture

Rem Koolhaas, Prada Transformer — architecture

Sheena Matheiken, The Uniform Project — fashion

Steven Holl & Vito Acconci, Storefront for Art and Architecture — architecture

Thomas Heatherwick, Rolling Bridge — architecture

Toyo Ito, Forum for Music, Dance, & Visual Culture — architecture

Zaha Hadid, London Aquatics Center — architecture

Transform/Unfixed x Material/Part

Barkow Leibinger, Kinetic Wall — architecture

Christopher Haas, Triangle of Squinches — architecture

Diller Scofidio Renfro, Blur Building — architecture

Doris Kim Sung, Bloom — architecture

Elegant Embellishments, Torre de Especialidades — architecture

Elena Manferdini, Clad Cut — fashion

Elisa Strozyk, Wooden Fabric — fashion

Nle, Makoko Floating School — architecture

Pringle of Scotland, Autumn/Winter 2014 — fashion

Ryuji Nakamura, Pond — architecture

Sean Godsell, RMIT Design School — architecture

SO-IL, Storefront for Art and Architecture — architecture

Tess Giberson, Autumn/Winter 2003/2004 — fashion

While fashion and architecture are represented in each section certain disciplines dominate various quadrants.

"Material/Part x Identity/Fixed" is comprised of projects where the identity of an organization, theme, or individual is delivered through the material selection and use. Almost evenly split between the two disciplines identity in material is easily recognizable in Indian Saris, costumes for a period-piece, a department store facade, and a chain of electronic stores for example.

In "Identity/Fixed x Form/Whole" the identity of the organization, theme, or individual is manifested through the form of the object, piece, or building. In this case, architecture dominates where form is objectified and at time becomes the icon of the organization. For example, the Renzo Piano Tjibaou Cultural Center derives its form from regional architecture, therefore the massive size creates an architecture which expresses the culture of Tjibaou through its architecture. Additionally, the neo-classical and grand gestures at McKim, Mead, & White's Girard Bank suggests the structure, and thus organization, is strong, trustworthy, and dominant. This

architecture can be seen through many banks across the world as the prevailing architectural style for banks and judicial systems.

"Form/Whole x Transform/Unfixed" is a category where the form transforms and changes as a meansn to adapt, adjust, or represent aspects of the building, piece, or organization. Surprisingly, there are mostly architectural projects in this category, especially since architecture is typically preceived as rigid and stable. The two most dynamic projects in this section are the Prada Transformer and the Unifrom Project. With transformer a single form is rotated, with cranes, to accomodate four different floor plans that match with programming such as: fashion exhibition, art exhibition, cinema, and special event. The Uniform Project similarly utilizes a single black jumper and challenges participants to rewear the black jumper everyday creating new outfits from placing it under or over other pieces of clothing to create a pleathora of combinations.

Finally "Transform/Unfixed x Material/Part" reflects those projects where the material quality changes the use or perception of the building or piece. In Elena Manferdini's Clad Cut an elegant blush colored dress is created out of a lightweight material. To add detail to the piece the back is laser cut in a diamond pattern, leaving parts of the shapes connected to the larger piece of cloth. In this way, part of the shapes hang and drape down off the back adding dimension and variation through movement or air movement. Diller Scofidio Renfro's Blur Building similiarly uses the material of fog to disguise what may or may not be a building. With this illusion, the fog creates and masks the architecture, ever changing in the blowing wind and consistently ephemeral.

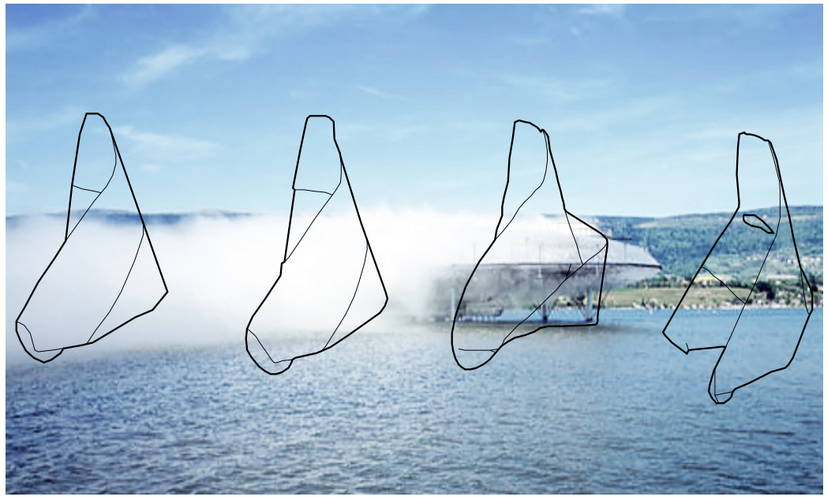


IMAGE 12
DILLER SCOFIDIO + RENFRO'S BLUR BUILDING + J. MEEJIN YOON'S MOBIUS DRESS

Chapter 3

Time and Sections

TIME AS A DIFFERENTIATOR

I'm a huge fan of contemporary culture...Fashion is the medium with its finger on the pulse [of culture]. It's so fast, it's so quick.[1]
– Mark Newson, designer, on fashion

Many buildings of the twentieth century continue to effectively relate to culture by creating sensations and affects...They build expressions out of an internal order that overcome the need to 'communicate' through a common language, the terms of which may no longer be available. It is paradoxically in this way that building expression remain resilient in time.[2]

Having established that fashion and architecture are alike and thus proving that hypothesis through an analysis of precedents, the next step was to study how they are divergent from one another a critical element in order to truly understand what an architecture for fashion can be. The chosen medium for this was through time. Time offers a neutral force with which both disciplines must contend. Studying the temporal differential directly relates to the divergence of fashion and architecture which speaks to the speed at which styles change and time it takes for projects to be completed. There are also many interpretations of what time is: speed, a placement within a sequence, past/present/future, or a qualitative value.

Contemporary writings on fashion and architecture and discussions about the disciplines aided in the development of a lexicon for time in relation to fashion and architecture. Typically authors use the ephemeral quality of fashion and the rigid,

1 Howarth, Dan. "Architects 'Don't Have a Clue about Fashion' Says Marc Newson." Dezeen. June 16, 2014. Accessed October 13, 2015. http://www.dezeen.com/2014/06/16/marc-newson-architects-designers-fashion-gstar-raw-interview.

2 Moussavi, Farshid. "The Function of Ornament." The Function of Ornament. Edited by Farshid Moussavi and Michael Kubo. Actar, 2006. 8.

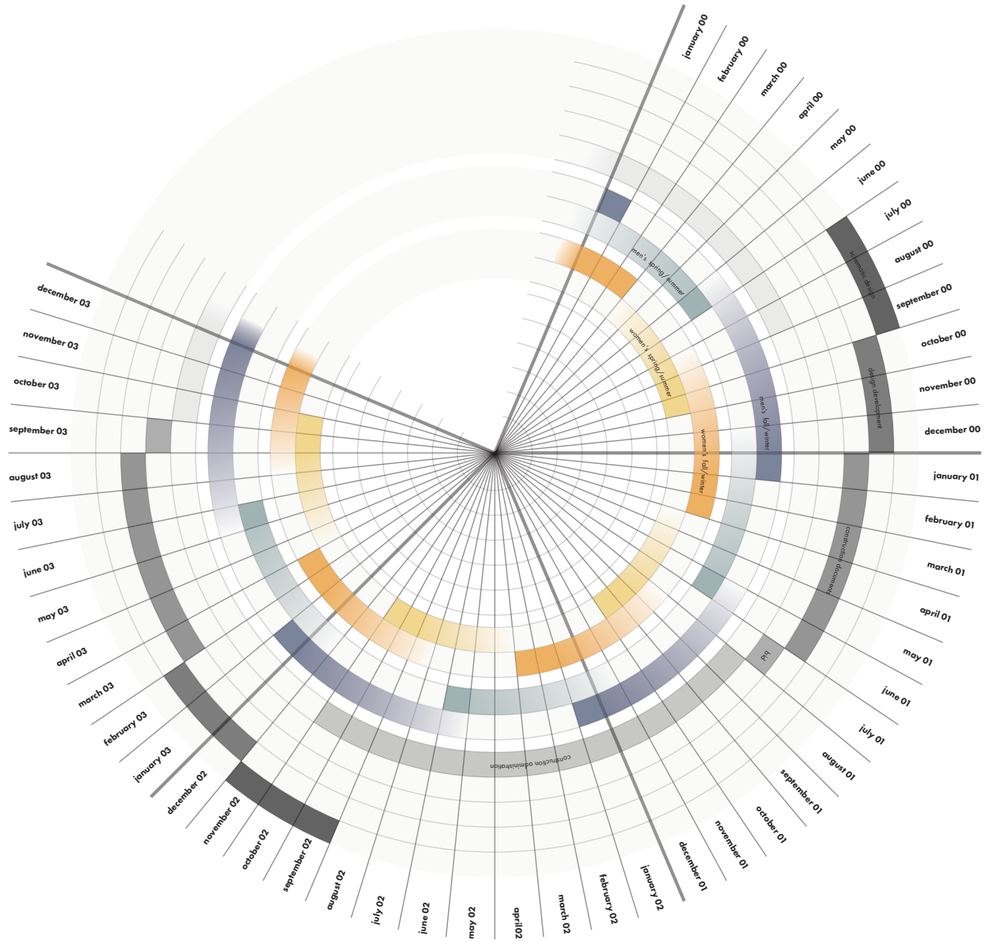


IMAGE 13
TIMELINE: FASHION SEASONS VS ARCHITECTURAL PROJECTS

slow properties of developing architecture to argue how they diverge. Acknowledging the terms used, by scholars, architects, and fashion designers, a list was created of opposites to describe time according to fashion (unattainable, cyclical, fast, future, growth, interval, calendar, ephemeral, season, and night) and architecture (continuous, day, linear, clock, attainable, timeless, slow, era, past, and decline). Below the differences and relationships are described:

unattainable *versus* attainable — fashion's every changing sense of style properties are unattainable as in when one feels they are able to be "in fashion" the fashion has changed for that exact reason *versus* architecture whose styles have longer lifespans due to the time-intensive constructing and designing process, almost anyone may build within the "current" architectural style

cyclical *versus* linear — fashion runs cyclically with styles coming back every 30-50 years[3] *versus* architecture whose styles proceed in a linear path, building off of the past but innovating for the future in technology, structure, and material properties

fast *versus* slow — fashion, as mentioned above, is ever changing and thus a fast discipline where elements are constantly in flux *versus* architecture whose goal is for health, safety, and welfare must adhere to rules and regulations making the design and construction process slow(er)

future *versus* past — fashion constantly looks to the future, as one style takes the catwalk the next season (which is expected to be completely different) has already

3 Sproles, George B. "Analyzing Fashion Life Cycles: Principles and Perspectives." Journal of Marketing 45, no. 4 (1981): 116-24. Accessed August 10, 2015. http://www.jstor.org/stable/1251479.

begun to take shape *versus* architecture who traditionally worships it's ancient past, using it as the best model for the discipline

growth *versus* decline — fashion grows as styles change, one's closet is full of last season's trends but wanting what is current; the many fashion seasons within the year provide an annual backlog of out-of-date styles *versus* architecture who's structures live in the public world indefinitely (or at least expected for 50 years) thus they are always in a state of decay due to weather, politics, economics, or technology

interval *versus* continuous — fashion with its many annual seasons operates at intervals — spring/summer, fall/winter *versus* architecture who is not defined by intervals and therefore may develop and transform seamlessly and continuously

calendar *versus* clock — fashion follows a strict calendar as to when and where the new seasons are displayed at shows (Paris for Haute Couture January, New York for New York Fashion Week in September) *versus* architecture which may be seen as being affected by the clock — buildings are designed with nighttime and daytime occupations in mind (i.e. lighting and access)

ephemeral *versus* timeless — fashion ever-changing and unattainable is most often referred to as an ephemeral discipline for its short seasons and styles *versus* architecture whose monumental, historic, and notable structures are revered and are viewed as timelessness examples

season *versus* era — fashion operates within their prescribed seasons with spring/summer and fall/winter being the largest, haute-couture and resort are smaller seasons *versus* architecture whose styles live within eras such as the

modern movement, post-modern, Greek, Roman, etc.

night *versus* day — fashion, with its associated parties and celebrity basis, is most easily connected to the night where gowns, dresses, and suits may be found in clubs, on the street, at the gala, or on the couch; charity events such as Fashion's Night Out attached fashion to nocturnal hours *versus* architecture, typically experienced during the day when one goes to work, walks on the street, visits a restaurant, or attends a museum

The above detailed description of time as they relate to fashion and architecture are not a complete set, but a snapshot of the temperal disparity.

From the terms, each of these qualities of time were depicted in a series of small, 2"x2", models. In this way a two-dimensional glossary and interpretation of fashion and architecture was translated in three-dimensional volumes. These attempt to encapsulate the properties of time while creating a space to be used architecturally.

The models are used as an algorithm to create a deeper understanding of their meanings towards an architecture for fashion. In utilizing the terminology and representation of temperal volumes, they were then organized in a myriad of modes which relate them to each other in a unique but rational fashion. They are characterized in the following ways:

Fashion *versus* architecture

fashion: interval, unattainable, cyclical, calendar, ephemeral, fast, season, future, growth, night

architecture: continuous, attainable, linear, clock, timeless, slow, era, past, decline, day

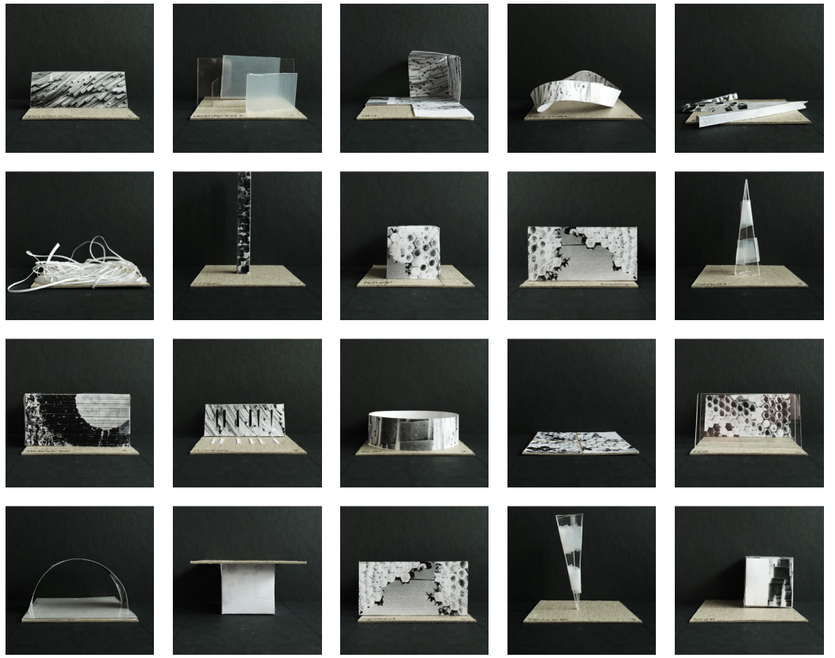


IMAGE 14
3D REPRESENTATIONS OF TIME

IMAGE 15
ANALYSIS OF TIME MODELS

Physical characteristics

tower: clock, growth, decline

circle: cyclical, ephemeral, fast, slow

volume: attainable, timeless, past, future, night, day

plane: interval, continuous, unattainable, linear, calendar, era, season

Programmatic relationships

make: continuous, unattainable, cyclical, fast, future, growth, day

exhibit: interval, linear, clock, calendar, ephemeral, season, night

save: attainable, timeless, slow, era, past, decline

Opposites

interval/continuous, attainable/unattainable, cyclical/linear, clock/calendar, timeless/ephemeral, fast/slow, era/season, past/future, growth/decline, night/day

Active *versus* inactive

active: continuous, cyclical, linear, clock, ephemeral, fast, slow, future, growth, decline, day

inactive: interval, attainable, unattainable, calendar, timeless, era, season, past, night

Length of time

continuous: continuous, unattainable, cyclical, linear, timeless, past, future

long: calendar, slow, era

medium: clock, season, growth, decline, night, day

short: interval, attainable, ephemeral, fast

Sequential relations

past: timeless, era, past, decline

present: continuous, cyclical, clock, calendar, ephemeral, season, day

future: future, growth, night

not applicable: interval, attainable, unattainable, linear, fast, slow

Measurement and regulation

strict measurement: continuous, clock, calendar, season

loose measurement: interval, ephemeral, era, night, day

no measurement: cyclical, timeless, past, future, growth, decline

not applicable: attainable, unattainable, linear, fast, slow

Spatial enclosure

enclosed: continuous, attainable, linear, clock, timeless, future, night

semi-enclosed: interval, cyclical, slow, past, growth, decline, day

unenclosed: unattainable, calendar, ephemeral, fast, era, season

"Fashion and architecture" and "programmatic relationship" are seen as the most influential for an architecture for fashion. With these qualities all volumes represent not only the disciplines in concentration but they also have a direct relationship to the function of the building. Therefore, the models and temporal values were organized firstly alternating between fashion and architecture and then, secondly, according to ones that represent "make," then "exhibit," then "save" as in the path of the fashion design process.

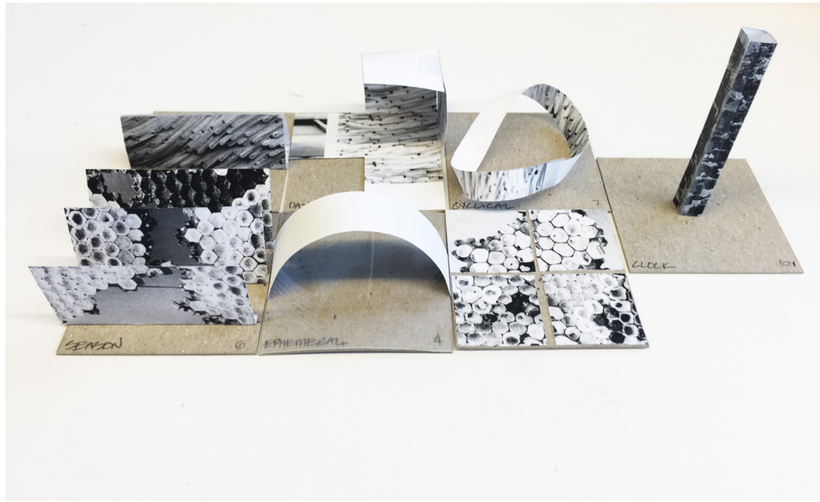


IMAGE 16
SEQUENTIAL RELATIONS: PRESENT

SECTIONAL STUDIES

I was also impressed by [Rei] Kawakubo's desire to create a total environment for her work – one that embraces not only the clothes but also the design of retail spaces, graphics, and furniture, much in the same way memeber of the Wiener Werkstatte or the Bauhaus strove to create a Gesamtkunstwerk.[4]
– Brooke Hodge in the introductory piece to Skin + Bones

At this stage in this architectural thesis on fashion and architecture the models held the most weight as they not only encapsulate all thought in relation to fashion and architecture, but also to the precedents and time. Although they are not yet architecture, just simply diagrammatic volumes of time.

With the intense taxonomy of the models (as detailed previously) they may be organized sequentially according to any of the themes. A building is the goal for this process and therefore must exist within a situation. Here, an edifice for fashion will be comprised of space for all aspects of the fashion design process. Simplified, they may be understood under the terms: make, exhibit, and save. Therefore, the designated order is as follows:

Continuous — architecture, make

Unattainable — fashion, make

Day — architecture, make

Cyclical — fashion, make

Linear — architecture, exhibit

Fast — fashion, make

4 Hodge, Brooke, and Patricia Mears. Skin Bones: Parallel Practices in Fashion and Architecture. Compiled by Brooke Hodge. New York: Thames & Hudson, 2006. 11.

Clock — architecture, exhibit

Future — fashion, make

Attainable — architecture, save

Growth — fashion, make

Timeless — architecture, save

Interval — fashion, exhibit

Slow — architecture, save

Calendar — fashion, exhibit

Era — architecture, save

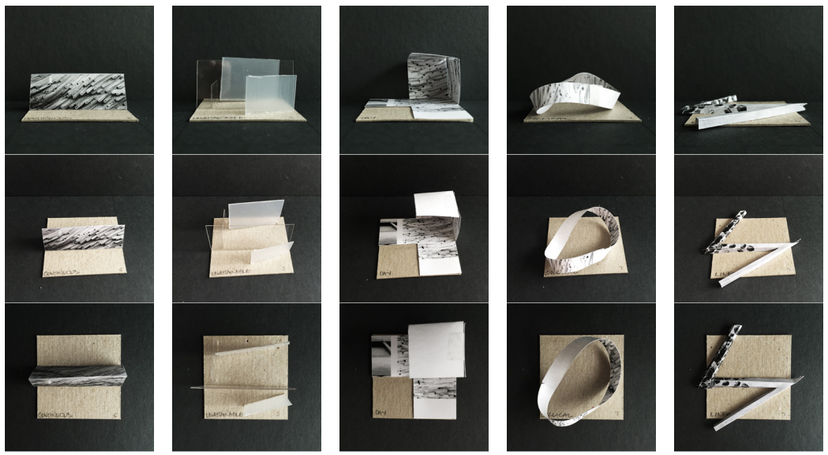
Ephemeral — fashion, exhibit

Past — architecture, save

Season — fashion, exhibit

Decline — architecture, save

Night — fashion, exhibit



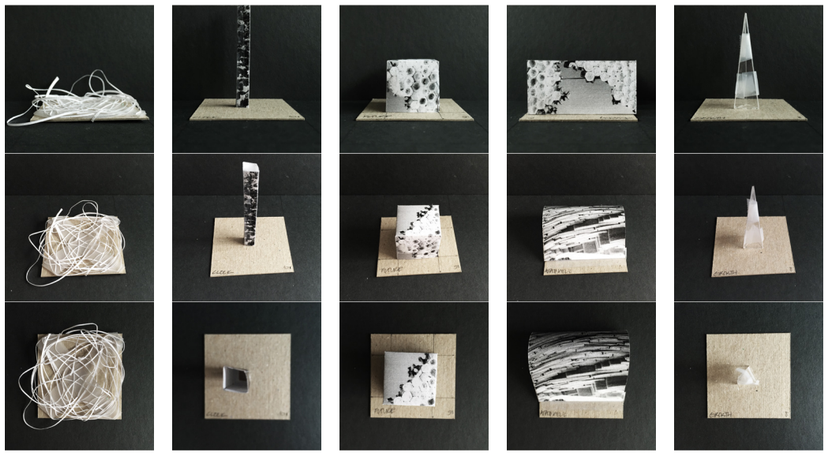
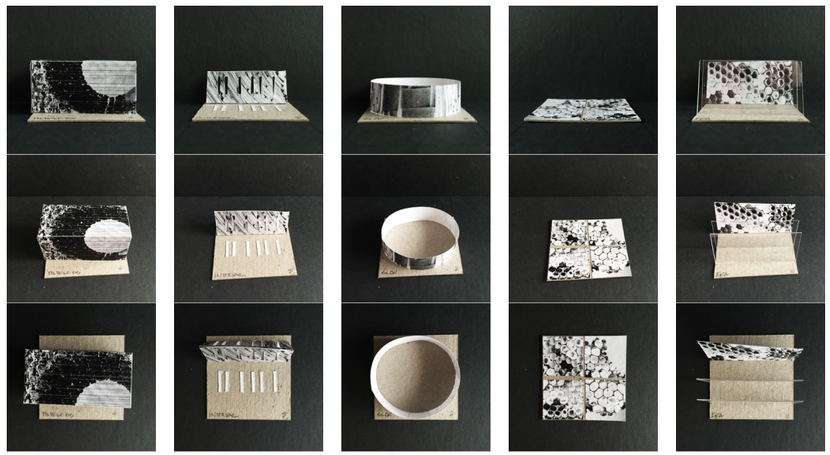
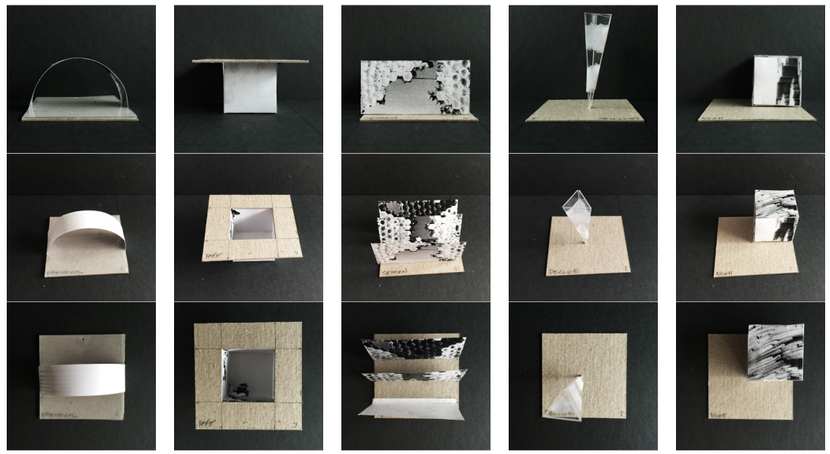


IMAGE 17
3 PERSPECTIVES OF 20 VERSIONS OF TIME (2 PAGES)





Through photography, images were captured of each of these models in the same position and light. With this they were translated back into a two-dimensional language and thus the trend of two-dimensional to three-dimensional to two-dimensional continued. As images they were manipulated digitally and were strewn together in a video with a crossfade between each individual image of a model of time. Here, at the crossfade of two models, a photo merge was generated — giving a third image as output. In this way a visual became available for the three-dimensional equivalent. For example, the sequence begins with continuous, unattainable, day, et cetera the crossfade between the images allows for a merged image of continuous/unattainable and unattainable/day. These images provided the springboard for a further architectural investigation.

IMAGE 18
MERGED IMAGES OF TIME: POSITIVE & NEGATIVE

PROGRAM DATABASE

In a sense, I'm into fashion because it contains the mood of the day, of the moment – like music, literature, and art. I am also very fascinated by the way on can transform cloth and make it do things that it doesn't always do. Architecture is how the person places herself in the space. Fashion is about how you place the object on the person.[5]
– Zaha Hadid in an interview with Vogue

In detail, the program may be further described as:

Make — drape, pattern, stitch, material, detail, test — A space that accommodates the creation of a piece or collection of fashion. This segment incorporates the activities of sketching, prototyping, material selection, construction of garments, material tests, and revisions.

5 McCready, Louise. "Form in Motion: Architect Zaha Hadid on Her Exhibit at the Philadelphia Museum of Art." Vogue.com. September 23, 2011. Accessed January 27, 2016. http://www.vogue.com/873780/form-in-motion-architect-zaha-hadid-on-her-exhibit-at-the-philadelphia-museum-of-art.

IMAGE 19
MAKE SPACES

Exhibit — exhibit, runway, publicize, print, stage, spectacle — The public aspect of fashion design; exhibit involves the runway shows, presentations, photo shoots, and press related functions. Additionally special events for charity, such that are associated with fashion design, occur here where the space is available for large functions.

IMAGE 20
EXHIBIT SPACES

Save — archive, store, preserve, display, restore, curate — With the superfluous amounts of clothing designed and generated each year (i.e. 40 garments in a collection multiplied by 4 collections per year equals 160 garments per designer each year) a space is generated for storing and preserving these works. Here the saving aspect is in protected archives and open museum space so that the pieces may be referenced.

IMAGE 21
ARCHIVE SPACES

Chapter 4

Becoming Architectural

ARCHITECTURAL SPACE FOR FASHION DESIGN

> ***Cultural events could be hosted in stores. Activities other than shopping could take place after store hours.... Constant transformation can occur throught the application of 'wallpaper': a range of store elements that can mutate faster than the architecture itself.***[1]

Images representing fashion and architecture through volumetric interpretations of time, the next step was to translate this into a three-dimensional, architectural space. Viewed as sections through a space, these merged images were placed into a perspective in sequence, as if slices of bread. Utilizing an algorithm, connections were drawn between each section. The rules were as follows: firstly, each line needed to join the two unique forms rather than the form that carried from the first section to the next. For example: in growth/timeless to timeless/interval, lines of connection must be drawn between the form signifying growth and interval as they are unique in each merge set. With this, variation evolves along the length of the contrived form. Additionally, each edge of the merged forms must be addressed with the drawn lines. In this way a shape that suggests a three-dimensional space emerges out of the two-dimensional merged time interpretations. This figure was completed with transparency and it was shaded in three shades of gray, suggesting floor, wall, and roof.

With this conglomeration of time, fashion, architecture, making, exhibiting, and saving a form is brought to life following the prescribed sequence of temporal volumes in a linear path. Shaded to suggest surface and cover, the form takes on a life

1 Koolhaas, Rem. Prada: Projects for Prada. Milano: Fonzazione Prada Edizioni, 2001.

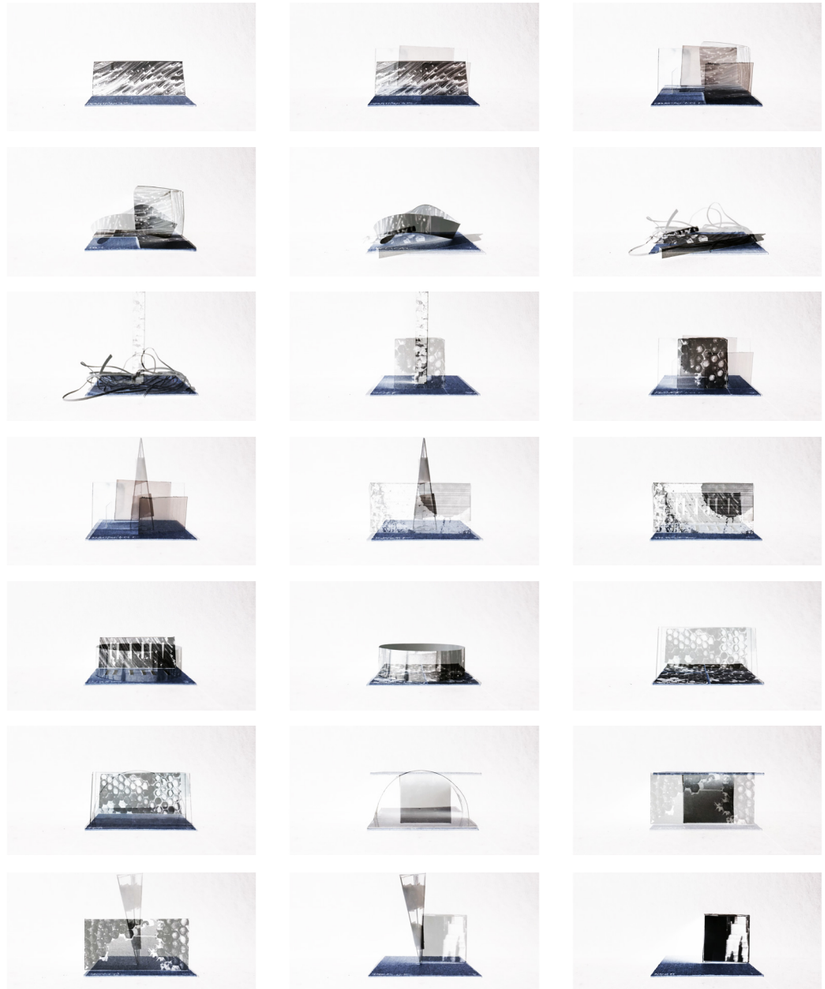


IMAGE 22
MERGED MODELS

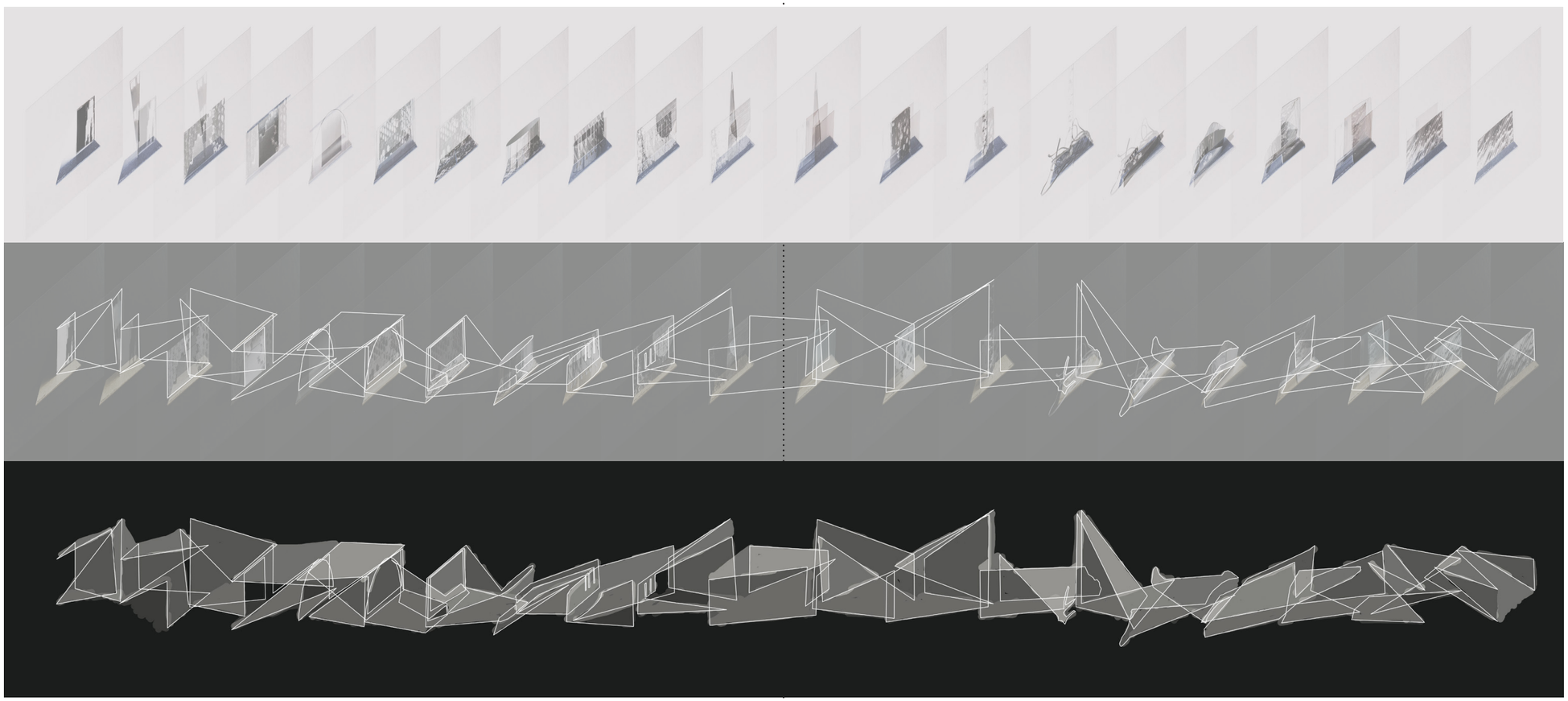


IMAGE 23
SECTIONAL CONNECTIONS

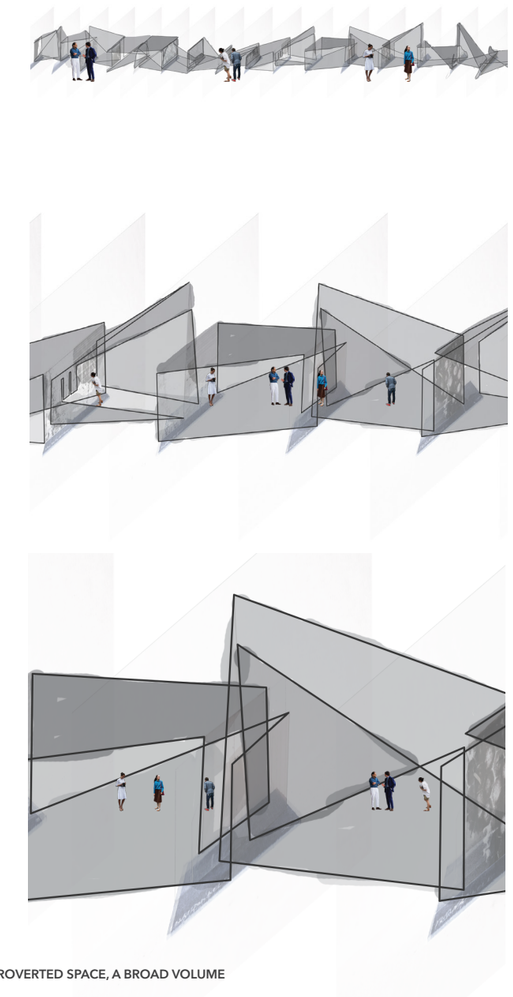
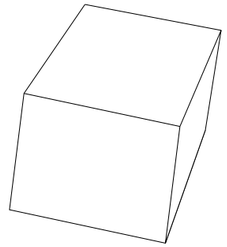


IMAGE 24
AN OBJECT, AN INTROVERTED SPACE, A BROAD VOLUME



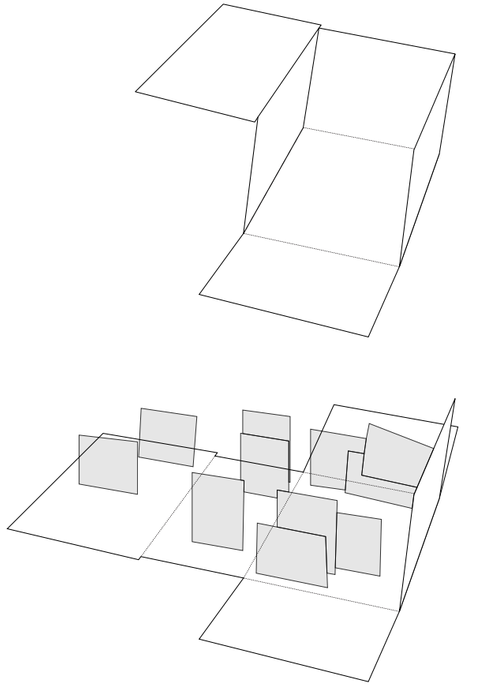


IMAGE 25
PATTERN TO FORM TO INTERIOR SPACE

of its own. But how big is it? What goes on inside?

A series of scale studies explored this inquiry digitally:

An Object — Viewers interact with the form from the exterior. Seen from above and adjacent, the viewer may pay witness to the detail of cross-sections depicting time through their ability to get up close to the form. While depicting fashion and architecture, it does not lend itself to the use of space for the fashion design process: make, exhibit, save. Rather this object becomes an abstraction of what was studied so closely. Neither inhabitable nor wearable this object becomes the other that fashion and architecture are not.

An Introverted Space — This interpreted scale is for one or two persons per segment. Sized to accommodate a specific task yet not for a complete purpose or process. In an introverted space one may work on the aspect of make, exhibit, or save that correlates with the depiction of time between rooms. Although this scale becomes inhabitable it fails to accommodate the collaborative atmosphere of each discipline. Activities are bifurcated by the architecture itself leaving no accommodation for the fluidity of the design process. One may need to repeat steps and in this scale, it is impeded.

A Broad Volume — In this perspective on scale occupants freely float between the forms as if they are structural bays. The lofty, open, linear warehouse-like space accounts for fluidity throughout the design process and keeps itself on the fringe of the work inside. But with the availability of space and air comes with it the impersonality and inflatable scale architecture veers toward at times (i.e. temples scaled for giants rather than humans). The connection to the individual body and

its proportions is lost, therefore the architectural volume becomes a shell rather than a part of the life and process.

In three-dimensions a similar challenge was tested, how to use these cross-sections depicting time to create enclosed volume or space. A pattern was made to create a three-dimensional form out of flat foam-core as a single piece. Through accounting for material thickness, scoring and cutting a cruciform-like shape emerged, which upon folding created a prism. Within the interior of the flattened prism lines were scored every 1/2" on each plane which would become the bottom, long sides, and top of the prism. In these slits the merged images of the time models were placed as if cross-sections within this prism of a structure. Printed on acetate for transparency and translucence the images occupied all sides of the prism in the prescribed sequence (i.e. architecture then fashion, make, exhibit, save). When the box is folded over to create the prism form, the images affixed to each side move with it generating a series of sections within the box (or building). This two-dimensional to three-dimensional translation achieved an activated space that contains the qualities of fashion and architecture through the interpretated lens of time.

LOGISTICS AND MATERIAL PRECEDENTS

Fashions are, by definition, temporary cylical phenomena adopted by consumers for a particular time and situation.[2]

In thinking about the merged images as sections through a space, a logistical question at this point manifests: how does one move between spaces? As an exploration, the summary below examines many options as they relate to a building, but it also describes the necessary elements one needs to understand they are passing between spaces.

Entry/Exit — must have two distinct spaces separated by a defined threshold

Border — a defined threshold whether physical or psychological, requires periphery

Path — a path defined by borders, can follow between or along or through spaces, an extension of a space

Vertical — a change in the Z direction, level changes, or views of below required

Outside/Inside — similar to entry/exit, but a shelter or enclosure is required on one side

Public/Private — a change in openness and exposure to the outside

Object — a physical indicator detailing changes, divider

Through — movement from beyond, into, and past

Between — a physical or psychological indicator that one is passing in the middle of two objects or spaces

2 Sproles, George B. "Analyzing Fashion Life Cycles: Principles and Perspectives." Journal of Marketing 45, no. 4 (1981): 116-24. Accessed August 10, 2015. http://www.jstor.org/stable/1251479. 116.

Open — a change from a barred space to an exposed space with the ability to enter, rotation about an axis

Slide — a change in a vertical or horizontal direction of plane that bars entry to one that allows crossing or vice versa

Climb — a physical movement along an arduous path, either horizontally or vertically, must be an object or force in the path of travel

In traveling towards an architectural interpretation of fashion and architecture, material is key to a hearmonizing success. Architecturally materials are rendered in abstract as the building is designed due to the large scale of the work, weight of materials, and lack of ease or readiness with which to work. Chipboard impersonates brick or concrete, while plastic suggests glazing. Additionally, most materials used in full-scale architecture require time and effort to get them to the point where they may be used: concrete must be poured and cured, wood pressure-treated, brick adhered with mortar. On the other hand, with the length of time to get an architectural project from paper to reality it affords the flexibility to experiment with material properties or research new innovations.

In fashion, materials are chosen based on a relatively set array (cotton, scuba, stretch-knit, polyester, etc.) these are then able to be produced in a myriad of patterns and colors, generally to order. Due to their quick production and standard foundations, the fashion design process benefits from utilizing the final materials from the onset, if desired. Typically, a prototype is made in muslin (an inexpensive, unbleached cotton) to address fit, proportions, and details. After which the final product is made out of the

final material and minor adjustments occur. Fashion in its quick moving seasons and developments cannot indulge in more time to change concepts, material approaches, or utilize fabrics with longer lead times than expected, therefore perhaps hindering innovation in materiality.

To compare and contrast the use of materials, concrete and polyester were chosen to explore their uses in each discipline.

Concrete — In architecture, concrete is used for mass, weight, and strength to deliver a comprehensive concept. It is commonly formed or stacked, monolithic or punched-through to surround and create structures of importance and form tall, short, long, or squat. There are few things concrete cannot achieve for architecture; innovations in engineering have allowed most dreams to be realized in concrete. As for fashion, concrete is typically superficial. Providing little structural or formal value, concrete is applied to the fabric for aesthetic value or, rarely, for added durability. Consequently, though, concrete is rigid and hardens thus is not practical for everyday wear, therefore fashion incorporating concrete is looking to express hardiness, strength, and an austere appearance rather than for prosaic use.

Polyester — Fashion utilizes the inorganic material polyester in many pieces. Known for its flexibility, low production cost, durability, and significant amount of varieties, polyester can be found in almost every sector of society. The water-resistant qualities and ability to retain its shape allows the material to be used in a variety of fashions. Such as sports weat, work-wear, and high-fashion. Architecturally, polyester is used in tensile structures where it is pulled between rods creating shelter and enclosure. It can take the form of a hypar structure, barrel vault, conic structure, or dome. Additional water resistance is applied to the material to allow equipment to be housed below. Due to the form the polyester can create and its weather-resistance, it is seen as an ideal fabric for exterior use.

Concerning material the two disciplines have a diverse set of priorities. Architecture values strength, durability, and resistance to weathering while fashion emphasizes flexibility, durability, and aesthetics. The availability of material at hand and freedom to explore their properties also accounts for materials chosen. An architecture for fashion must account for these material sensitivities while holding true to what is useful for its purpose, to shelter and house the fashion design process.

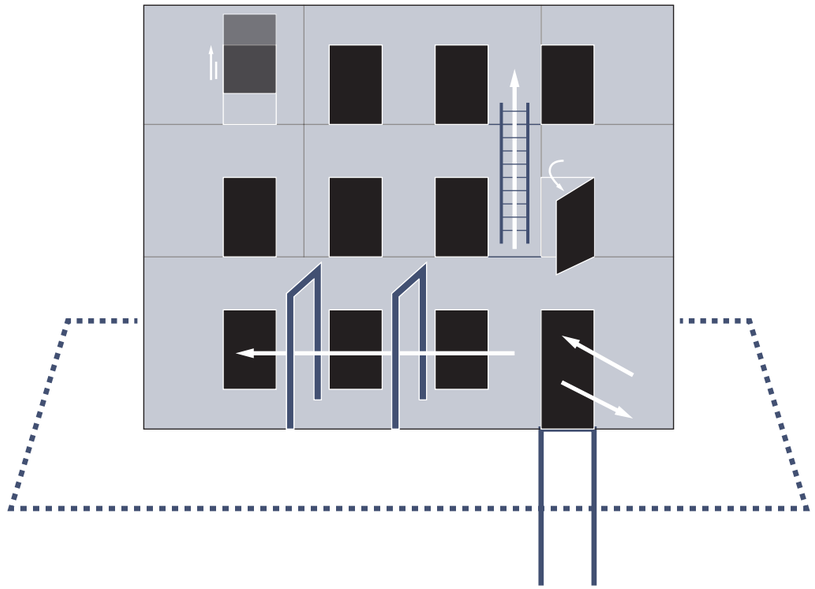


IMAGE 26
WAYS TO TRANSITION

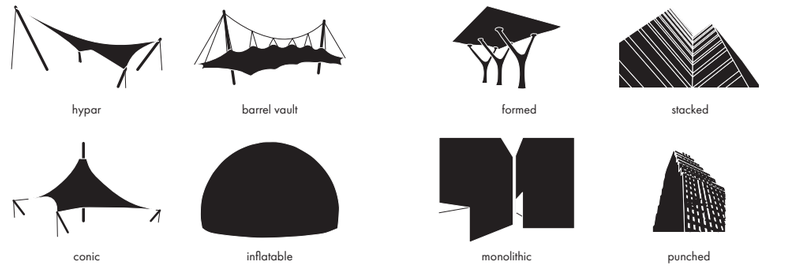


IMAGE 27
MATERIAL STUDIES

Chapter 5

Client and Culture

CLIENT AND CULTURE

Architecture is how the person places herself in the space, whereas fashion is about how you place the object on the person.[1]

The Fashion & Technology Lab exemplifies all quantities necessary for the success of a facility based on fashion, innovation, and collaboration. As a start-up incubator their mission is to select, mentor, and guide fresh designers and fashion brands through implementation into the fashion industry. In light of the rapid interest and development in "fashion tech" fashion labs are growing and requiring more flexibility, equipment, and types of spaces to accommodate their upward trajectory.[2] In the case of F&T, not only are they already associated with Paris as their home, they also rely on that relationship in their partnerships with local design companies and industry leaders. With this a new architectural project will allow them to have a series of spaces that align with their incubation path, providing enough flexible space for designing, prototyping, presenting, exhibiting, and archiving.

One of the deepest roots to fashion and technology can be found in the medieval practice of making armor. Combining security, body movement/shape/proportion, and new material technologies to output something wearable truly is the basis of this facility type. As material understandings changed from leather, to metal plate, to the composites of today so did workspaces needed to create the

1 "Zaha Hadid and Rem D. Koolhaas On Designing A Shoe For The 21st Century," Co.Design. August 30, 2012, accessed March 09, 2016, http://www.fastcodesign.com/1670683/hadid-koolhaas-conversation.

2 Koplovitz, Kay. "Fashion Tech Labs Are All the Rage: A Guide to 11 Fashion Tech Labs and What They Offer." Forbes. July 31, 2014. Accessed June 30, 2015. http://www.forbes.com/sites/kaykoplovitz/2014/07/31/fashion-tech-labs-are-all-the-rage-a-guide-to-eleven-fashion-tech-labs-what-they-offer.

defensive clothing.[3] Architecturally, it can be seen that workplaces follow the same trend. Originally these were tradesman shops full of tools and materials for creating and making, but as technology developed many professions became confined to a desk and paper, typewriter, or computer. Shops became large small backrooms, to separate buildings, to large office parks. Only now that technology has advanced to make tools smaller and the importance of quality spaces for human psychology has been illuminated do we see architecture adapting once again to open, smaller spaces more connected to the human form. With this co-working spaces and alternate work locations (i.e. conference spaces, and cafes) are evolving to be the contemporary model of workplaces. The question now is what is the current state of fashion and its' connection to technology, and where is it going?

The fundamental purpose exemplified by the Fashion & Technology Lab is to provide business support and creative guidance to fashion designers and fashion startups. With this they offer two trajectories, a customized selection of services and support (research/trends, sourcing/production, costing/selling, collaborations, etc.) or their application and acceptance to their incubation program. These two offerings are aimed to help launch young fashion designers and fashion businesses with the help of their guidance and "ecosystem" — a network of mentors, partners, and sponsors. The ultimate purpose of their business model is to "foster the next big Fashion Tech Startups and Designers." F&T is different from similar incubators and consultant companies in that not only do they combine the two, but they are also specialized in

3 "Armour." Wikipedia. March 2, 2016. Accessed March 10, 2016. https://en.wikipedia.org/wiki/Armour.

the fashion industry, pairing fashion and technology together. This means that they are a niche company who depend on finding new talent and innovations to further their business model and development. With their business services they establish a community of colleagues within the community and look to solve specific problems. While the incubator side of the business seeks departure from the norm to build a fashion brand from the bottom up so the logistics of setting up a company to the production of garments.[4]

A unique political situation is set up by this building type and client. The architecture must to accommodate for the full process of fashion design from concept through exhibition to archive. On the other hand, if the designers themselves are excluded from making architectural and spatial decisions, how can the building start to respond to what they need when they need it? Through flexibility and transformation in form and material. Additionally, there is a greater audience serviced by this space which belongs to the community and general public. How can the architecture start to include everyone so as not to become an elitist building serving a presumed elitist industry? Through critically understanding the potential for adaptation and openness, this has allowed for a more just and appropriate building for its services and those who are affected by it. Integration and fluidity between make, exhibit, and archive space allow for this interaction to begin to occur.

4 "Fashion & Technology Lab." Fashion & Technology Lab. Accessed July 1, 2015. http://fashiontechnologylab.com/en.

IMAGE 28
IMAGE FROM FASHION & TECHNOLOGY LAB WEBSITE

Chapter 6

Site and Context

SITE AND CONTEXT

The best fashion show is definitely on the street – always has been and always will be.[1]
– Bill Cunningham

I was stationed in the southwest of France. I'd take the train up to Paris. Of course it was very different from today. They were only couture houses. They were clothes that gave women enormous security through the elegance of cut and taste and refinement. There was nothing frivolous about them.[2]
– Bill Cunningham

Located within the city of Paris, a new architecture for fashion will nestle itself within the historic urban fabric and developing modernity of this global city. Situated on the Rue de l'Ourcq the site inhabits 1,371 m2 (14,757 ft2) of residual space between the existing buildings on Rue des Ardennes to the East, Avenue Jean Jaurès to the south, and the Petite Ceinture rail line to the west and north. Access to the site is through a vaulted passage under the defunct rail line on the west. Although the site is surrounded at ground level by infrastructure and adjacent buildings with little to no view out to the street, at higher elevations the site offers views toward Sacre Coeur (cathedral on a hill), La Defense (high rise development on the western periphery of the city), and the northern suburbs. The site was selected and described in the international competition Reinventer.Paris hosted by the City of Paris challenging design firms to design for Paris' future. A sample of some relevant limitations and characteristics outlined in the competition are below:

1 Bill Cunningham New York. Directed by Richard Press. First Thought Films, 2010. https://www.netflix.com/search/bill cunningham?jbv=70141814&jbp=0&jbr=0.
2 Ibid.

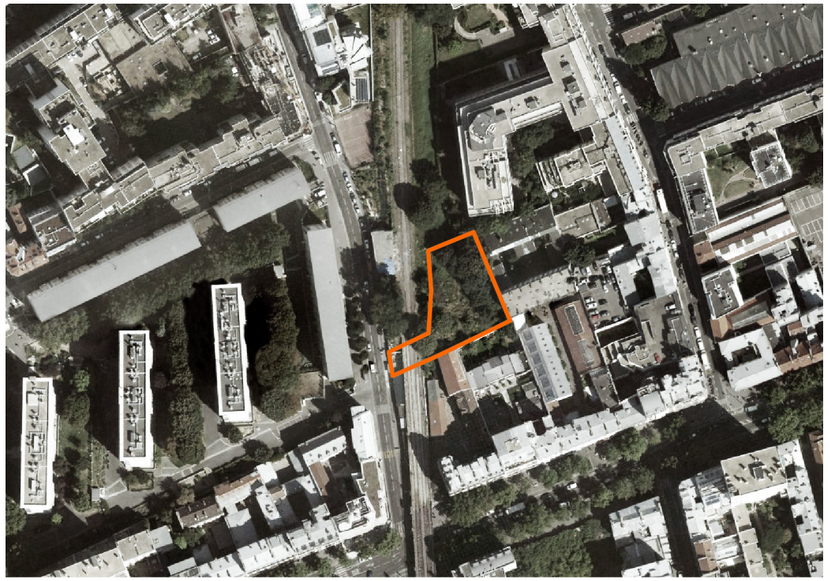


IMAGE 29
SATELLITE PHOTO OF SITE

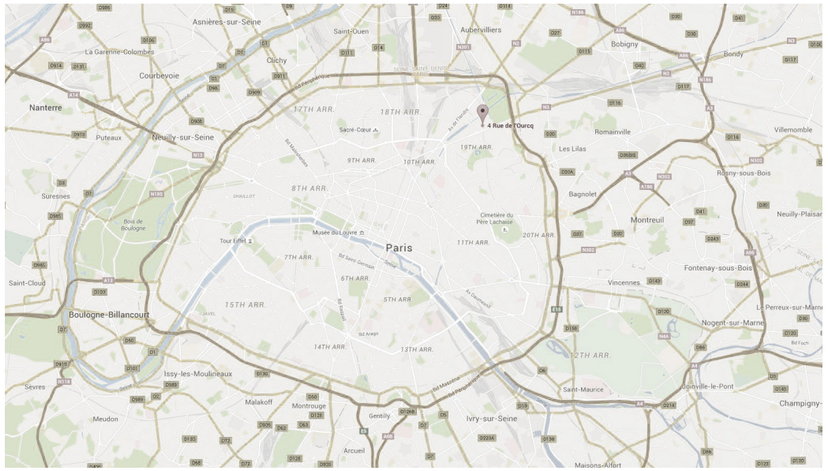


IMAGE 30
THE SITE'S LOCATION WITHIN PARIS

Height limit: 31 meters / 101.7 feet

The vaulted entrance is "noted in the local urban development plan for [its] heritage, landscape, and cultural value" — Historic Monument protection zone

Goals for the redevelopment of the neighborhood:

"The preservation and development of trade and business, including the restricting of the Petite Ceinture vaults and buildings"

"The creation of green spaces"

"The reconfiguration of public spaces"

With the high visibility of the vaults leading into the site from the southern Avenue Jean Jaurès, it is critical to choose a building program that maintains an "urban appearance" and "redefines the railway line by giving it a powerful identity"

With these unique situations and goals outlined, one may begin to understand the unique nature and critical location as the building must react to many urban elements.[3]

Paris is known for its relatively mild climate, also referred to as an Oceanic Climate or Maritime Temperate Climate according to the Koppen Climate Classification.[4] In general these climates feature cloudier skies along with their cool summers and moderate winters.[5] Snow can be found falling on Paris annually although it does not always stick to the ground due to temperatures typically hovering above freezing; average highs range from 7.2°C - 25.2°C (45°F - 77.4°F) with lows averaging

3 "Ourcq-Jaurès." Ourcq Jaurès (19e). Accessed August 1, 2015. http://www.reinventer.paris/en/sites/1243-ourcq-Jaurès-19e-19e.html.
4 "Köppen Climate Classification." Wikipedia. March 10, 2016. Accessed March 10, 2016. https://en.wikipedia.org/wiki/Köppen_climate_classification.
5 Ibid.

Climate Variable	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Annual
Avg Max Temp °C (°F)	6 (4x3)	7 (45)	12 (54	16 (61)	20 (68)	23 (73)	25 (77)	24 (75)	21 (70)	16 (61)	10 (50)	7 (45)	16 (60)
Avg Temp °C (°F)	4 (38)	4 (39)	8 (46)	11 (52)	15 (59)	18 (64)	20 (68)	19 (66)	17 (62)	12 (54)	8 (46)	5 (40)	12 (53)
Avg Min Temp °C (°F)	1 (34)	1 (34)	4 (39)	6 (43)	10 (50)	13 (55)	15 (59)	14 (57)	12 (540	8 (46)	5 (41)	2 (36)	8 (46)
Avg Precipitation mm (in)	56 (2)	46 (2)	35 (1)	42 (2)	57 (2)	54 (2)	59 (2)	64 (3)	55 (2)	50 (2)	51 (2)	50 (2)	619 (24)
Wet Days (% rain prob)	17 (55)	14 (50)	12 (39)	13 (43)	12 (39)	12 (40)	12 (39)	13 (42)	13 (43)	13 (42)	15 (50)	16 (52)	162 (44)
Avg Sunset Hrs/ Day	1h 54′	2h 54′	5h 07′	6h 30′	7h 27′	8h 06′	7h 46′	7h 03′	5h 58′	4h 03′	2h 00′	1h 29′	5h 02′
Avg Daylight Hrs/ Day	8h 45′	10h 05′	11h 49′	13h 39′	15h 15′	16h 05′	15h 42′	14h 19′	12h 32′	10h 42′	9h 07′	8h 19′	12h 0′
% Sunny (Cloudy) Daylight Hrs	22 (78)	29 (71)	44 (56)	48 (52)	50 (50)	51 (49)	50 (50)	50 (50)	48 (52)	39 (61)	22 (78)	18 (82)	42 (58)
Sun altitude at solar noon on 21st day (°)	21.3	30.6	41.5	53.1	61.4	64.6	61.6	53.2	41.8	30.4	21.2	17.8	41.5

IMAGE 31
PARIS' CLIMATE & TEMPERATURE

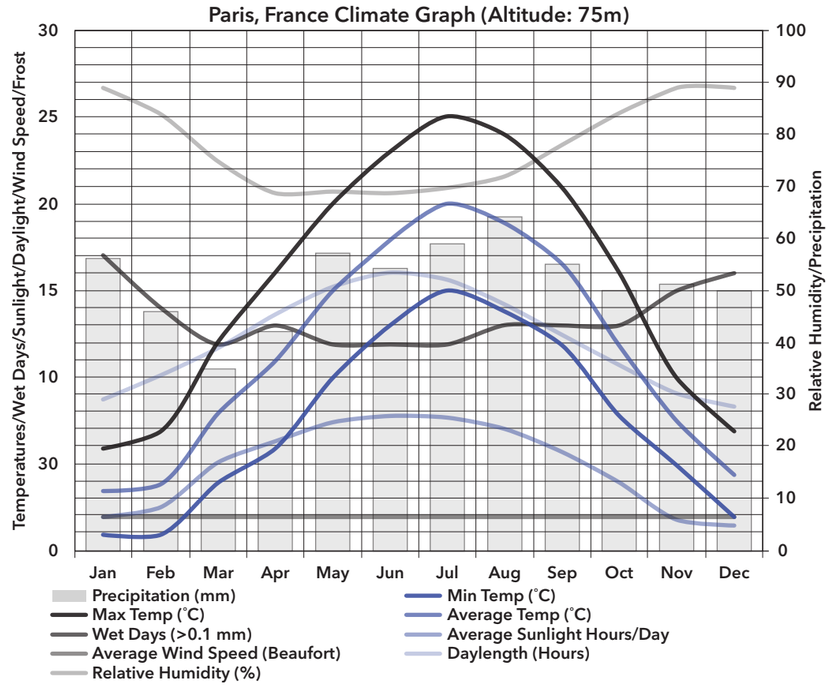


IMAGE 32
PARIS' CLIMATE & TEMPERATURE

2.7°C - 15.8°C (36.9°F - 60.4°F). Rainfall is typically distributed throughout the year at an annual precipitation of 652 mm (25.7 in), although some of this does fall in heavy rainstorms. Darker months will be experienced from November through February where the mean sunshine hours per month are 65.2. March through October feature significantly more sunshine hours at a mean of 175.11 per month.[6] Forty million years ago, Paris rested underneath a shallow tropical sea from the north of Europe thus leaving 400 meters (1/4 miles) of sedimentary deposit. Now these elements have broken down into chalk, clay, and gypsum and were typically mined within the city. In keeping these ideas in mind the climatic conditions of Paris were utilized to create a sustainable, economical, and pleasant space.

As is the case with infill sites, 2 Rue de l'Ourcq is surrounded on all sides. The Petite Ceinture railway crosses through the site from the north on the west side. Across the 1,371m2 area (14,757ft2) there is little elevation change, an average of 0.6m (2ft), but it sits 4.25m (14ft) above the road along the same plane as the rail line. Continuing with the western edge, most buildings on the Rue de l'Ourcq range from 5-6 stories with open-space at the ground level reserved for commercial use or a semi-private courtyard and residential housing on all floors above. Some of these buildings are newly built, others renovated with a classical character. There is also a large fenced-in housing complex along this road which is comprised of at least 6 similarly sized mid-rise towers with the furthest east instance directly across the street from the site. Rue de l'Ourcq connects to Avenue Jean Jaurès, a major street in the

6 "Paris." Wikipedia. March 10, 2016. Accessed March 10, 2016. https://en.wikipedia.org/wiki/Paris#Climate.

IMAGE 33
NORTHWEST ALONG THE PETITE CEINTURE

IMAGE 34
SOUTHEAST FROM THE PETITE CEINTURE

IMAGE 35
STREET FRONTAGE ON RUE DE L'OURCQ

neighborhood, to the south and the east end of Rue Leon Giraud to the north. Ourcq ends at Jean Jaurès but continues north over the Canal de la Villette ending 1.2km (0.75 miles) further north. Continuing to the north of the site, one finds themselves on the most open edge, where the railway line continues beyond winding behind residential and commercial buildings and crossing over the aforementioned canal. There is also an office building at the northeast corner, frontage along Rue des Ardennes, whose arm extends toward the site. At 8 stories tall, the French location for this chemical distribution company has a strong presence over the site. On the east end, the site falls off to meet up at the elevation of the road again, here the land is met by a 3 story building and a 5 story bank office. Finally the south side of the site features lower buildings at 2-3 stories housing a karate school. There is also a low stone wall along this façade. All buildings surrounding the north, east, and south sides are the rearmost buildings sitting within courtyards beyond those that face the streets Avenue Jean Jaurès and Rue des Ardennes. A lot surrounds the site which sits 100m (328ft) from the closet underground Metro station — Ourcq.

With this factual understanding of the site, one can make a few conjectures as to how to utilize and react to the site:

The opportunity to play with topography — As the site is entered from the street, one must pass under the Petite Ceinture and somehow navigate up to the +14ft elevation of the earth on the other side. With this there is a design opportunity to create a meaningful pathway that suggests the change of experience as one passes from the street to the building.

IMAGE 36
GOOGLE EARTH VIEW TOWARDS MONTMARTRE AND LA DEFENSE

IMAGE 37
RÉINVENTER PARIS, 2 BIS RUE DE L'OURCQ, 75019 PARIS

IMAGE 38
RÉINVENTER PARIS, 2 BIS RUE DE L'OURCQ, 75019 PARIS

IMAGE 39
RÉINVENTER PARIS, 2 BIS RUE DE L'OURCQ, 75019 PARIS

IMAGE 40
LA PETITE CEINTURE AUJOURD'HUI (THE PETITE CEINTURE TODAY)

The opportunity to relate to the railway — The Petite Ceinture is a unique challenge on this site. With no clear future for the abandoned infrastructure, the site must be designed to be adaptable for each possible trajectory — a walking path and park space, a light rail system, or kept in its current deteriorating state.

The opportunity to study building siting — Since the project involves infill and the site is completely surrounded specific reactions occur when the building(s) are located in different areas around the site. Additionally, noise, sight-lines, sunlight, and views may all be affected by these studies.

These are just the beginning of a slew of possible site related studies. In this location treatment of the site will inevitably exist as one of the strongest architectural moves on the project.

In conclusion the Ourcq-Jaurès site is very complicated. It incorporates many aspects of typical international cities while throwing in unique parameters. A deep study of the project site unveils the limited access points where approach and topography will be manipulated to generate an appropriate path. Sustainable measures may be easily adapted to this site due to the moderate weather and flexible interior programming. Finally, this site provides that ability to react or directly ignore its immediate surroundings. Historical edifice and contemporary mixed use blocks offer many points of departure for material, aesthetic, and design that must be addressed as to how this new project will incorporate itself into the urban environment. A rich site offers a rich array of architectural opportunities.

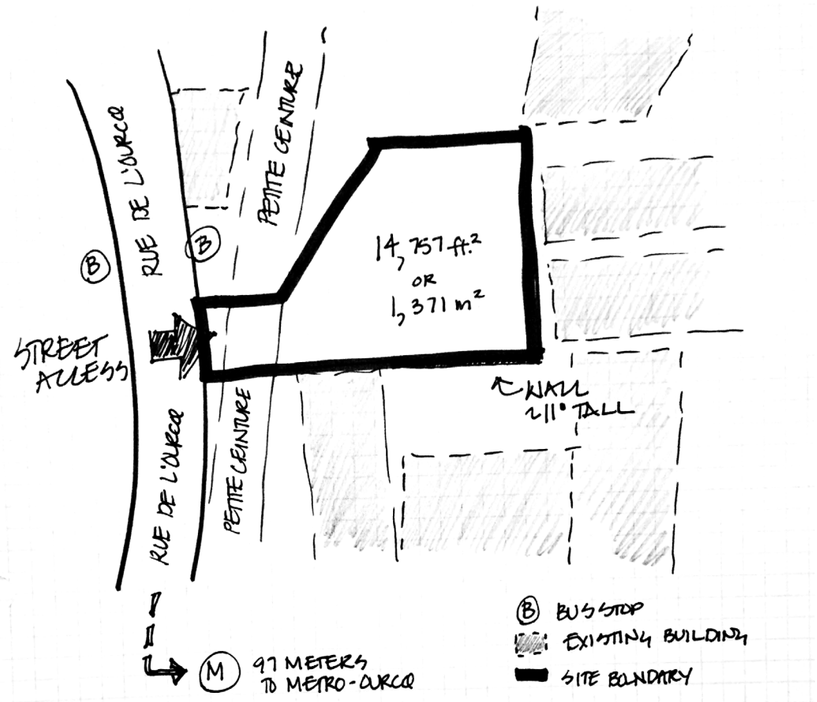


IMAGE 41
SITE DIAGRAM

Chapter 7

An Architecture for Fashion

AN ARCHITECTURE FOR FASHION

Architecture needs mechanisms that allow it to become connected to culture. It achieves this by continually capturing the forces that shape society as material to work with. Architecture's materiality is therefore a composite one, made up of visible as well as invisible forces. Progress in architecture occurs through new concepts by which it becomes connected with this material, and it manifests itself in new aesthetic compositions and affects.[1]

Fashion poses a doubled view of a culture: a view of how those in power want to present that culture; and a view of how, at least within a range of choices, a culture wishes to depict itself. While fashion's options are emptied of their original polemical structures, the fashion process renovates these options into more socially prolific phenomena, capable of permeating every stratum of a society without regard to economic or ideological diversities.[2]

Through the tools, techniques, and strategies explored previously a set of rules may be laid and applied to an architecture for fashion.

1. Must address fashion and architecture, without being architectural fashion or fashionable architecture.
2. Must challenge perceptions of each discipline while adhering to assumptions about each so a connection may be made between fashion and architecture.
3. Must communicate the difference in temporal perception and acknowledge the two interpretations coexisting.

1 Moussavi, Farshid. "The Function of Ornament." The Function of Ornament. Edited by Farshid Moussavi and Michael Kubo. Actar, 2006. 6.

2 Warke, Val K. "'In' Architecture: Observing the Mechanisms of Fashion." Architecture, in Fashion. Edited by Deborah Fausch. New York: Princeton Architectural Press, 1994. 142.

4. Must acknowledge the need for each program function: make, exhibit, save.
5. Must live in a scale that appropriately accommodates all program functions.
6. Must consider transitions as points of contact with temporal quality, i.e. fashion and architecture existing at a single point.
7. Must retain properties of architecture such as shelter, occupation by many, rigidity.
8. Must retain properties of fashion such as flexibility, durability, and change.
9. Must create a sensible use of materials that react to the intended properties, use, and occupants.

Following these guidelines and sensitives, a series of spaces unfold and evolve as one passes through and beyond the architectural center for fashion. This work translates the analogous relationship apparent in the two fields while paying tribute to the unique attributes that hold them apart: scale, material use, and time; while exalting what associations bring them together such as their shared cultural significance. The spaces relating to the three aspects of the program — make, exhibit, save — can be read individually yet there is an interdependence between forms and internal functions.

In utilizing the three-dimensional interpretations of time the architecture evokes a chaotic sense of movement, focus, and priorities yet simply existing in a real and charged site. A collage of spaces and tempos allows for the architecture to billow, accounting for changing needs internally, while impeding adjustment at other edges in order to exist within the prescribed environment. The architectural center for fashion begins to embody the qualities of ephemerality and timelessness that has been rarely known to exist.

Materiality also holds a bipolar significance in this piece. Evoking and incorporating the material properties necessary for fashion and architecture, it also allows the formal qualities of the building to speak to the temporal values housed within. The surface allows for undulations and rigidity, adapting to scale as needed and creating a space of its own.

As the representational sections of fashion and architecture are placed on the site, they begin to pull the site toward them. In this manipulation of the ground plane the architectural center for fashion becomes firmly rooted in its place attempting to create a singular instance that may never be repeated at other locations, just as architecture and fashion exist in unique situations. The building cascade from one temporal representation to the next along the journey of the fashion design process, circling back to the beginning.

Fashion and architecture, famously interwoven in their foundations come to a physical realization in this edifice built to complete its purpose, a self-fulfilling prophecy.

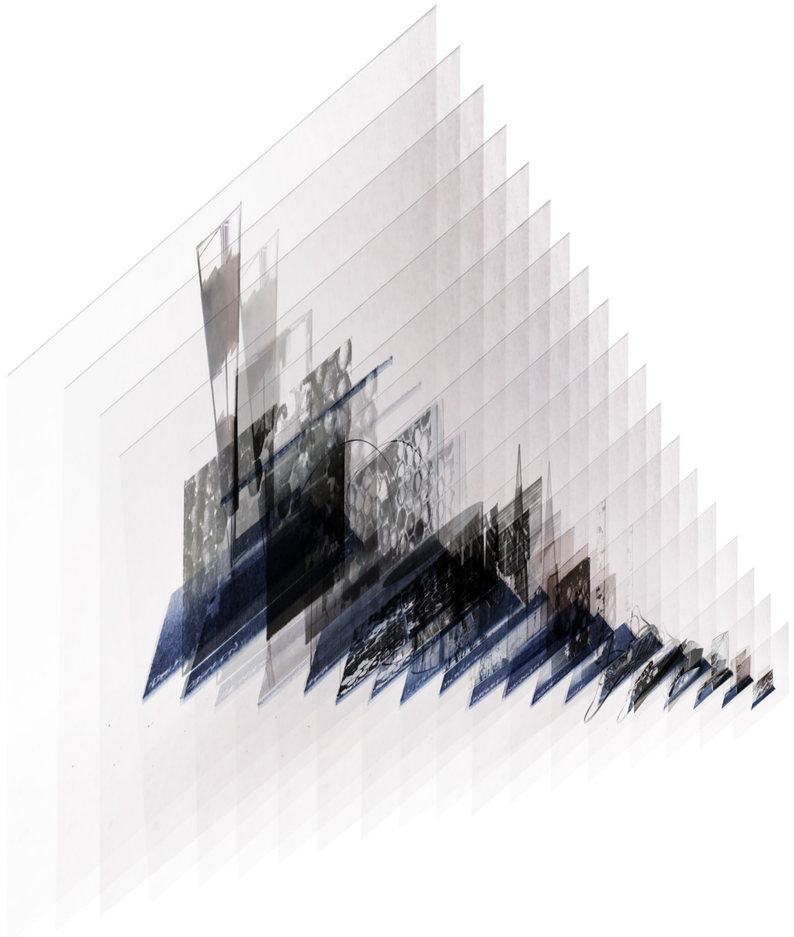


IMAGE 42
CASCADING PERSPECTIVES OF TIME

Chapter 8

Conclusion

AN ARCHITECTURE FOR FASHION

> ***If architecture is to remain convergent with culture, it needs to build mechanisms by which culture can constantly produce new images and concepts rather than recycle existing ones.***[1]

This thesis tests the hypothesis that an architecture can be designed for fashion that reaches beyond the superficial surface of a flowy facade or structural garments. It investigates this through a series of small studies related to all aspects of architectural building design: experientiality, form, function, scale, material, movement, and structure.

With these understandings, the thesis was a success. An architecture for fashion was designed thoughtfully and evoking deeper properties of both disciplines.

On the other hand, the thesis was a failure. It showed that while "an" architecture may be created, but it is not "the" architecture for fashion. Both terms hold a significant amount of weight in today's world where architecture makes a nice accessory and fashion is the law. There is virtually no way to completely grasp the two disciplines' complete significance and values in a single year let alone a lifetime. Additionally, the ephemerality of fashion and changes in its formally traditional market pattern allows the industry to remain elusive and unattainable for one to grasp. Architecture also is at an influx of development and change. Technology is continually changing and inspiring not only the minds of the designers, but also the ability of engineers and contractors; it seems that the field is at a point where there are no limits. Additionally the absence of a single theme or trend in architecture creates a varied field against which one may react.

As a research project, this thesis thoughtfully integrates an interdisciplinary focus to reconnect the fields of related arts in hopes that both disciplines will gain cultural significance and relevance and continue to cultivate and inspire others to share the same values.

1 Moussavi, Farshid. "The Function of Ornament." The Function of Ornament. Edited by Farshid Moussavi and Michael Kubo. Actar, 2006. 8.

Appendix

Images and Bibliography

IMAGES

Image 01 Miller, Meredith. Architecture as Wearable Object #1. 2015. Digital.

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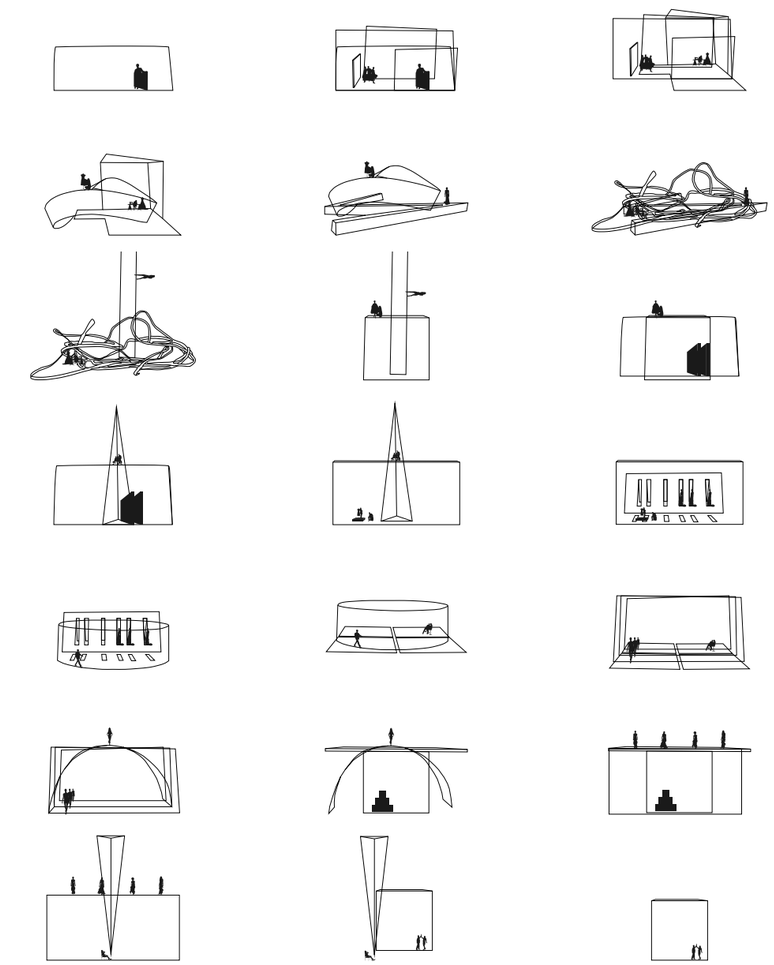

IMAGE 43
TEMPORAL SECTIONS WITH SCALE FIGURES

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