POP UP
A deployable brand in the urban fabric.

by: John Gaitan

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thank you: Mom and Dad
This thesis responds to the constant change in the retail industry through the exploration of Pop-up structures. Although there are various ways a brand could connect to the public, Pop-up stores are found effective through the physical presence in cities. Temporary architecture has the flexibility to be assembled, interacted with, and relocated. The adaptability of temporal structure could apply to various forms of retailing, however this study will focus on specialty brands and leisure types.

Traditional retail shops are not innovative, but the ability for a Pop-up to transform shape and change spatially according to program provides a new experience. This allows architecture as the main form of engagement. Through marketing strategies, retail branding, and the evolution of consumer culture, the thesis will apply written research to two architectural explorations. Each project will be placed in different scenarios, using the same deployable tactics to connect people, brand and the urban fabric.
Technology and shopping
Shopping experience
with up-and-coming technologies

POP-UP in a city near you!
Top five cities with POP-UP shops

What's shopping like
In the future?
Unraveling a new potential

+ THE COMEBACK
OF PAUL SCHATZ
GEOMETRIES

FREE GIFT INSIDE

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Introduction

POP* DEFINITION: understanding the origins of the Pop-up retailing

Consumer Culture INTRODUCTION: the industry currently

Emerging economy INTRODUCTION: from the mass production economy to consumer experiential economy

Window Shopping FROM 2D TO 2D: the industry currently

Integrating technology INTRODUCTION: merging technology with the built retail environment

Box park Mall CASE STUDY: A critique on the modern day pop-up

Guerrilla series +XXX FLASH MARKETING: Comme des garçons temporary store and avant-garde marketing tactics

The Transformer THE SPECTACLE: transformative pavilion by Prada and OMA displayed for various programming.

Between the brand and I THEORY: warmth and competence as a platform for trusting brands.

Patterns, colour and attraction THEORY: altering mood and behavior through the usage of colour.

Invertible cube CASE STUDY: understanding Paul Schatz transformable geometry

Macro micro EXPLORATION: taking the geometries and designing a deployable interactive architecture

Project study 1 FASHION HUB: Turning Pop-ups into a facade system for a fashion school

Deployment EXPLORATION: different methods the pop-up could be transported.

Project study 2 URBAN: choosing an appropriate site to set up a pop-up and effects within urban context

Conclusion PREDICTION: What is architecture’s role in consumer culture for the future?

Abstract INTRODUCTION: POP-UP A deployable brand in the urban fabric

Postscript COMMENTS: discussion post defence

Illustrations CONTEXT: list of images used.

Bibliography WORKSCITED: list of resources used
Editor's letter: The spectacle of in-store shopping has lost its buzz. The sense of awe while walking into retail spaces have become oversaturated and predictable. However, there has been a shift from presenting product and price as the main attraction to experiences based on brand value. The demand for one-of-a-kind products has resulted in unique experiences, which require the space to be immersive, transformative and adaptable. As Euro-American cities continue to make urban centers people centric, pop-up culture will continue to surprise spectators in unexpected locations, and become more sophisticated in structure.

This issue will explore pop up retailing, and its potential to spark the interest in city centres around the world. Throughout the short history of consumer culture, there has been a focus on the dynamism of interiors, graphics, fashion, furniture, but not architecture. Through a series of project studies, there will be an exploration how architecture could react to the transformative nature of the consumer, by changing form, program and location.
Introduction

Consumer culture and the research of retail environments is a delicate subject matter in architecture. It is often seen in architectural discourse as fickle and superficial, yet it is incorporated into various programming within the community. Brands that invest in Pop-up architecture play a vital role in the way consumers experience space in the city. Implementation of these structures changes the face of the urban fabric temporarily, playing with monumentality of the cityscape. The ability to create a connection between individuals, ephemeral space, and the surrounding is the focus of the research. The goal is not to formulate an opinion on capitalism but rather the potential for pop-ups.

Although the research and project revolve around fashion houses, pop-ups could adapt to include more social functions - health clinic, libraries and meeting spaces or more cultural function such as -museums and galleries or even entertainment. Therefore the creation of Pop-ups are not directly linked to consumer culture, but fashion houses have predominantly used this form of architecture to connect with pedestrians in western societies.

**POP* disappear**

Pop-up retailing, a low risk, high gain form of marketing deploys ephemeral architecture to major cities around the world to engage with consumers. The flexibility of ephemeral structures and low-cost of assembly has allowed for conceptual spaces to be set up within unused buildings, outdoor urban square, and in some cases on buses or boats. Temporary stores are to be set up and dismantled within two days, or stay as long as a year. The goal is to be seen in the public realm, to go against the grain of traditional, to be relatable, and to create a lasting impression for future business. The ‘laid back approach’ to retailing, which separates itself from the traditional framework of flagship counterparts, invites a new demographic into the space without the pressure to purchase products. Even though pop-ups try to detach themselves from flagships and headquarters, there is still an important relationship between the two, one is dependent on the other so potential followers reach the main source which is either accessible online, or in store through the flagship. The multi-dimensional aspect to these spaces transform into various functions such as: gallery space, cocktail venue, or pavilion space allowing for leisure to occur. The programming of each pop-up is dependable on the narrative the brand would like to portray, and the ambiguous location is part of the thrill.
So far this century doesn’t yet have its own shopping innovation and environment. The fashion industries keep delivering drops until we shop, and against all odds, the status quo of retail seems to project business as usual far into our future...

Indeed, the outer shell of shops has changed, with landmark architecture branding the luxury houses, and recently even certain volume chain stores, bringing high and low even closer than ever. However, the inner mood and mentality of shops has not yet been reinvented, and is in need of creative and conceptual thinking.

Mood marketing will replace all other research disciplines trying to rekindle and improve the relationship with consumers in the future, and therefore will require very different store environments and shopping mentalities. Shopping will need to become a trip within our inner selves to satisfy our complex needs and wishes, and therefore needs to be addressed in a truly innovative manner, to reach the consumer on another, more private level. Imagination, improvisation, intelligence and humour are needed to redefine the shopping experiences of tomorrow. To engage in a new dialogue with our clients, to anticipate their every wish, to service their every whim, to satisfy their hidden desires.

Lidewij Edelkoort - Trend Tablet
Consumer culture

Adam Smith in 1776 published his book, *Wealth of Nations* outlines crucial theories that would revolutionize modern economics and pave the way for important theories which influence society in the twenty-first century. The boom of leisure, and the unpredictable habits of consumers have made retail environments under a delicate balance between operation and abandonment. Retail environments are the first to expand but also the first to be removed especially malls throughout United States, growth-averaging 140 per year, and simultaneously a large amount vacant in suburban areas. Many of these locations were abandoned before time, each are empty due to reasons related to its location, size, and change in culture. The growth of consumer culture has allowed for shopping to be incorporated into various public programs from hospitals, airports, schools, library, churches, train stations and museums. Although conjoined forms of retail such as museums shops are more stable due to the flow of tourists, it could still be subject to closure if the museum is not drawing in enough visitors. The flexibility of pop-up architecture reacts to the needs of the consumer and the unstable nature of retail environments, by assembling in city centres for an allotted period of time, reusing the same elements to another location. Architecture formerly could not react as quickly to changes in the fashion industry like interiors or furniture, but the development of deployable structures will create spaces in reflection to brands lifestyle, making architectural spaces interactive.

Trends have recently gravitated towards the individual, and relating to the consumer on a personable level. This way trends are seen as suggestive, and the public is able build a personal relationship with the brand. Anna Wintour, Editor in chief for Vogue United States, re-affirm there is not a focus on trends but rather the character of a woman. Essentially the current trend is to not be part of a trend but rather build a character based on a brand’s concept relatable to the shopper. Formerly, one viewed fashion as a set of rules fashion houses outlined, making it difficult for the general public to follow, however the new development in building character has allowed major brand labels to become personable with consumers. Li Edoolkort, a prominent trend forecaster released a ten-point anti-fashion manifesto, stating fashion is coming to an end. The shift in focus from fashion to clothes will be the new industry of the future. The strategic allowance of expression, and focus on clothing puts pop-up retailing on the rise, creating a space for like-minded individuals to celebrate character through a form of leisure.
Context and evolution

INdus try

ECONo mic

1776 ADAM SMITH WEALTH OF NATIONS
1786 FIRST ARCADE LES GALERIES DE BOIS / PARIS
1851 FIRST DEPARTMENT STORE LES GALERIES DE BOIS / PARIS
1899 THORSTEIN VEBLEN THEORY OF LEISURE CLASS
1920'S CHRISTINE FEDERICK THEORY OF PLANNED OBSOLESCENCE
1922 FIRST UNIFIED MALL COUNTRY CLUB PLAZA / KANSAS CITY
1930 FIRST SUPERMARKET KING KULLEN N.Y.
1962 FIRST WALMART
1999 FIRST POP-UP SHOP LEVI'S & K SWISS INTRO
1999 EXPERIENTIAL ECONOMY JOSPEH PINE/HARVARD
1999 FIRST POP-UP SHOP LEVI'S & K SWISS

INTRO
GROWTH
MATURITY
DECLINE

ONLINE VS. INSTORE SHOPPING TRADITIONAL FRAMEWORK/1850'S ECONOMIC DOWNTURN
SHOP MINDFULLY VS. SHOP MINDLESS LEHMAN BROTHERS BANKRUPTCY
THE GREAT DEPRESSION LEHMAN BROTHERS COLLAPSE 2008 -

CONSUMER ARCHITECTURE LIFECYCLE

INDUSTRIAL ERA 1760 - 1830
MARGINAL REVOLUTION 1865 - 1880
WW1 1914 - 1918
THE GREAT DEPRESSION 1929 - 1940
WW2 1939 - 1945
GOLDEN AGE OF ECONOMICS 1946 - 2000

WHAT WILL THE FUTURE OF ARCHITECTURE BE WITH THE EXPERIENTIAL ECONOMY?
Leisure vs. convenience
The boom of retail environments since the sixties generated various types of shopping spaces to accommodate shoppers. Types of retail environments are mainly divided by convenience and leisure, and further divided by scale of store and offering type. It is recognized there are seven types of retailers\(^{17}\), however an eighth form of retailing is emerging. The experiential retailer focuses on an exchange of experiences rather than goods.\(^{18}\) The experiential retailer is based off Joseph Pines research on a new economic offering\(^{19}\). Retailers geared towards convenience tend to incorporate large storage areas, focus on price point and wholesale, and a lack of design to focus on the product\(^{20}\). Convenience types, Supermarket, warehouse retailer, e-tailer, and convenience retailer. Retailers set up for leisure rely heavily on interior design and graphics to allure potential customers. Larger leisure retail types tend to break down spaces into specialized boutiques so the shopping experience is not overwhelming\(^{21}\). Stores oriented to leisure would include department store, speciality retailer, discounts retailer and experiential retailer. Although Pop-up retailing could be adapted to the majority of categories, the thesis addresses specialty retailing and its recent hybridization with the experiential economy.

Emerging economies
In 2008, yet another economic market crash resulted a shift in the way consumers shop due to restricted income. Retailers in response to the lack of sales have had to find inexpensive solutions to reach the public is various locations, in other words follow the flow of the consumer. Rather than price and product, there has been a focus on experience and lifestyle\(^{22}\). Joseph Pine in 1999 proposed a new set of economic offerings, which shifted the way consumers shop\(^{23}\). The experiential economy provides a completely different set of offerings for the consumer to pay more for a product of greater value. The shopper is willing to pay more for a heightened ambiance or theatrical element, which engages rather than just entertains\(^{24}\). The consumer wishes to explore and become immersed in the narrative portrayed throughout the store, rather than focusing on the impulsive purchase of product.\(^{25}\) Pop-up retailing grasps the idea of ambiance and theatrics to draw customers into the space. Memories left from the consumers experience will entice shoppers to go back to headquarters, to re-live the lifestyle provided through the pop-up.\(^{26}\)
Leisure types | Convenience types

dividing types of retailers, examples, and qualities

Window-shopping

In the traditional framework of retailing, for example shopping malls, strip malls, and boutiques all depend on grasping the attention of consumers through seductive window display and graphics.\textsuperscript{27} The window display throughout time was a portal for consumers to understand current ‘must-haves’ and narrate the lifestyle through intensive sets, and vibrant imagery. Comparing window displays from the forties until recently, there is an evolution in complexity window displays. The dynamic mannequins\textsuperscript{28} and intricate life settings are striving towards creating an immersive experience for the consumer. Even though window displays are a 2d experience, disconnecting the shopper through the glass barrier and elevated platforms, there are a few similarities with pop-ups. Both forms of display share the same idea of ‘window shopping,’ walking-by and understanding the objects but not committing to the purchase of the product. Pop-up
retailing takes the notions of window displays from flat to multi-dimensional by immersing the shopper through spatial qualities. Both forms of display rely heavily on a narrative, being able to choreograph through staging for the shopper to relate to and be a part of the experience.
The idea of pop-up retailing is nothing new; temporary retail spaces have existed for hundreds of years and will continue to exist. The recent development in sophistication has brought this form of ephemeral yet permanent form of architecture to the forefront. The number of pop-up stores in the United States grew sixteen percent from 2009 to 2013. In the U.K. a report from network EE and economist CEBR showed that pop-up retailers contribute 2.1 billion pounds to the UK each year, and continues to grow.
Traditional vs. new economic offering | Pop-up

comparision of traditional frameworks and the new opportunities of Pop-up retailing. It also highlights virtual platforms integration into these two shopping types.
Technology
The retail environment has gone through number of changes in the past decade due to the increase in online shopping, sophisticated technologies, and recent international economic downturn. The weight in sales online have increased, in-store presence in the physical world is important to communicate with potential followers, an immersive experience. Technology as an interactive component still falls flat on the sales floor, usually brands invest on tablets or gadgets in hopes of engaging the consumer through online surveys, or information of upcoming styles. For technology to successfully engage the consumer, it would have to become a component of the architecture. Instead of tablets or computer screens near passageways in stores, the engagement would occur between racks, or in the fitting room area. The interaction with tablets and flat 2d gadgetry does not add value to the shopping experience, but responsive lighting, furniture etc. generates a memorable individual experience. When a suggestion is made directly to the consumer it adds value to their experience. An attempt to blur the virtual and physical was a body-scanning device designed by Microsoft kinect. It would scan the customer’s body in order to direct shoppers to the best-suited brand for the body type. Although it is insightful and addresses the needs of the customer, it still is within the traditional framework of a department store and cuts the experience short. To lengthen the experience, the space must then change program, and address another necessity of the consumer. Technology is the only medium, which is on par with human activity, and the diverse changes in lifestyle. The hybridizing of various programming [i.e. coffee shop, art gallery, venue etc.] and architectural transformations will be one of the solutions for the future. This chameleonic approach to physical space will result in a more personal engagement with the customer, which delivers more value to their lives. The Pop-up environment then should be able to transform in order to cue the customer of a differing experience. The space becomes an elusive-brick-to-mortar store, one day addressing one need and the next to host for another.
Endnotes


3 Ibid.

4 Ibid.

5 Ibid.

6 Ibid.


14 Ibid.


16 Ibid.


19 Ibid.


21 Ibid.


23 Ibid.

24 Ibid.

25 Ibid.


30 Ibid.


32 Ibid.

33 Ibid.

34 Ibid.

35 Ibid.

36 Ibid.

37 Ibid.
Say Yes! TO
COFFEE SHOP
Pay 10x more - but you get a memorable experience.
*The nearest pop-up shop will find you.*

Here is to the best part of your day
Box Park Mall

The idea of ephemeral structures in cities is established in western culture. According to Douglas Murphy, critic for the *Architectural Review* draws comparison of the modern pop up with idealistic notions of Archigram, but a mindless rendition. Box Park pop-up mall in Shoreditch, England, set up in 2011 are an assembly of shipping containers housing different stores and organizations. Murphy claims is a “clump of shipping containers.” Douglas only drew out examples that do not truly exemplify the modern, sophisticated pop-up. Although designers claim it is a Pop-up structure, the mall is set up for five years [too long], each store is set up as a traditional retail space, and only one small component contains an experiential element.

The space does not abide by the criteria of a successful pop-up shop, and many examples brought up by Murphy lacked the idea of a concept, or the potential to have an experience. Initially the idea of shipping containers sounds alluring; building materials reverting back to its original function, a carriage for products, recycled for scraps, or deployability. However, it lacks the spatial, mostly experiential components, therefore make pop-ups an exciting surprise to be discovered in the urban fabric. Temporal structures within the past decade are beginning to develop a complexity, and strives away from the steel container and towards an architectural intervention that juxtaposes the monumentality of the city centre. Murphy claims pop-ups simply rent out underused building space, however there are various examples of pop-ups standing independently from its surroundings, as exemplified by *The Transformer* by Rem Koolhaas and Miuccia Prada.

The transformer: Rem Koolhaas

Prada and other luxury brands have started to branch into other disciplines of design and collaborate to convey the ideals of the brand through different mediums of art. *The Transformer*, designed by Rem Koolhaas and Miuccia Prada was displayed in a historical district within Seoul, Korea. The pop-up displays various forms of art to convey the brand.
and therefore stimulate the consumer. The space was to change shape in order to host an art exhibition, cinema, fashion show, and student display. The expectation of engaging consumers in new ways have leading fashion houses such as Prada to create an experience rather than the presentation of clothing. Customers expect products, communication, entertainment and marketing efforts that pique their senses, evoke emotion, and stimulate their thinking, they expect and respond best to experiences and want shopping to be fun.7

The pavilion is to be set up for six months, and invite guests to walk into the anti-blob space, defined by the various programming. The Transformer was made up of four geometric shapes: hexagon, rectangle, cruciform, and circle. In the occurrence of change, the pavilion would be lifted by four cranes and rotated to adapt to the event. The transformer at the moment rotation then became the spectacle. The architecture became the focus of the event rather than the event itself. The shift from the previous economic offering made products or objects as the spectacle to draw people in the store. The experiential economy however, uses ambient qualities to evoke a spectacle to entice the potential shopper. Since shopping does not have to be in store anymore, promoting memorable experiences, and strong following online is important for future business.

Commes de Garcons: GUERRILLA STORE +XXX

Rei Kawakubo and her team arrived to the pop up retailing scene in 2004 with the Guerrilla series. Although the first pop-up shops were designed and built by Swatch and Levi’s in 1999 in Los Angeles Commes de garcons focused on narrating their brand through spatial qualities designed by artists and architects. Guerrilla marketing, another word for Pop-up, suited the brand perfectly, going against typical luxury brand standards and make a commentary on the aggressive commercialism and gaudy architecture of high-concept flagships. CDG or Commes des Garcons used the idea of surprise and diffusion effect articulated by Katharina Hutter in her journal on Guerrilla Marketing to shock not only the industry but also followers through unexpected activities to achieve an emotional reaction. According to activation theory, surprised individuals suspend previous activity and focuses attention to the surprising event. In this case the brand decided to shock their followers by placing a temporary luxury store into abandoned commercial spaces on the outskirts of the city centre. The interior displays were composed of damaged furniture or materials found on site and transformed scraps into a display for products. It was suitable for a brand that advocates for unconventional anti-fashion ways to present clothing. The Guerrilla store was deployed in various soon-to-be gentrified locations in
Europe, and with the collaboration of local artists. The focus of the shop was not to sell as many articles of clothing as possible, but rather, provide a certain demographic, one that believes in the anti-fashion qualities of the brand an experience. The public understood the brands point of view because it was articulated through space. These qualities lend to the nature of pop-up retailing and direct towards a new form of shopping experience. Even though the Guerrilla store cannot be deployed into any area of the city centre, or be deployed as stand alone structure for maximum visual impact, there still is an idea of impermanence due to building being retrofitted at a certain time frame. CDG was the precursor for guerrilla marketing tactics that challenge the notions of impermanence.

Endnotes
2 Ibid.
6 Ibid.
9 Ibid.
16 Ibid.
17 Ibid.
18 Ibid.
6. Guerrilla store poster

REOCCUPATION STARTS
18 JANUARY 2008
11 MOUNT SOPHIA #01-01
SINGAPORE 238461

GUERRILLA Store

COMME des GARÇONS

+65
It's between the store and I

Brands are devoted to build character, humanizing products and smalls to be relatable for the consumer. The development of character rather than strict fashion trends are turning specialty retailers into a persona, and different event programming inform shoppers the personality of the brand. Joe Jackson, managing director of Protein magazine, [on consumer culture], predicts the shopping environment of the future will cater every need [from coffee, newspaper, to clothing etc.] of the consumer and therefore create a more personal engagement that delivers more value to their lives.¹ Consumers are demanding a more personable in-store experience, there is an interest in being able to build up the image of the brand through various in-store programming. The interest in developing brand character for the consumer to experience is through spatial qualities and the heightening of senses through events such as coffee shop, cocktail hour,
or musical performance.

Selecting a brand to follow is a difficult task since retailer's attributes directly reflect the consumer. In Chris Malone’s book *the human brand*, he states the selection process is very similar to the way one judges other humans. The set of offerings and values have to be on par with the individual associated with the brand. Consumers may think the following:

- What are the brands values? What do they stand for?
- What will people think of me if I support the brand?
- Does the brand stand for what I believe in?
- What could the brand do for me?

In recent years the retail industry has been branded in a humanized manner to form a special relationship with customers. The *warmth and competence* theory explains how humans judge based on two categories of social perception, 1) warmth and 2) competence. The form of judgment is primitive, a brand that exudes warmth and competence inspires feelings of trust, admiration, and comfort. Companies have been able set these tones to attract consumers to purchase their goods and form an emotional relationship. A prime example of a company using warmth and competence to redeem themselves to their followers was Nike in the early 1990’s. Consumers were informed of Nike’s poor factory conditions, low wages, and unsanitary working conditions. The general public reacted negatively with protests, which resulted in poor media coverage. The brand responded to the negative reaction by increasing minimum wages of factory workers, adopted U.S. OHSA clean air standards, starting the Fair Labour Association, and publishing a complete list of the factories with which it had contracts the first company to make such information available to the public. The quick response, result of transparency and the act of turning to the leader of fair labour amongst other companies helped gain the trust of the public. Nike is an example of relationships between the brand and shopper, both personal and emotional. Representation and brand intent are directly reflected into the spaces created for consumers.
Color, pattern, and attraction
The use of colour and pattern are essential in communicating a brand’s message. In traditional frameworks of shopping experience, the subtleties of colour were used to physiologically affect the body. Colours from the opposite side of the spectrum such as red and blue were tested and still applied in stores. Generally, the colour red stimulates the body in a negative manner, and blue in a positive way. Extensive studies evaluating colour to alter mood and purchase likelihood do not directly apply to successful pop-up retailing since temporary stores are meant to engage consumers rather than selling large quantities on site. What could be applied however is the usage of cooler tones to evoke comfort in a space.

In the book *Color: Communication and Architectural space*, the authors outline fashion does not use fundamental colour theory for architectural spaces. Colour trends, though short-lived, influence our judgment and can temporarily awaken new associations. The amount of visual stimuli (colours, patterns, contrasts etc.) extreme monotony and sensory deficiency can lead to under-stimulation, while a surplus of stimuli can produce over-stimulation. Over-stimulation can trigger physical or psychological changes. Although retail environments constantly change their colour palettes based on trends, it is important to take into consideration fundamental colour theories to develop a stimulating experience with positive physiological effects.
Let me sell you the lifestyle of someone else
Between the person, brand, and architecture

UNTIL WE
SHOP
Between the person, brand, and architecture

Invertible cube
Paul Schatz, an astronomer, mathematician and sculptor explored dynamism through transformable geometries\textsuperscript{17}. He went against the notions of stagnant representation of sculpture to create new technology suitable for man and in harmony with nature.\textsuperscript{18} Although these geometries were explored as a sculpture, it has the potential to be experienced spatially through interchangeable form. In 1929 he invented the invertible cube.\textsuperscript{19} The discovery of the form was the platonic solids could be inverted through basic movements of rotation, and translation in a straight line.\textsuperscript{20} Through its linear rotation, the object changes shape sequencing through triangle, hexagon, and differing from voids in the centre enclosed.\textsuperscript{21} The invertible cube makes up a third of a cube on its side with voids on congruent ends.\textsuperscript{22} The cube is made up of three separate entities, two of the same referred as bolts [refer to image on pg. 29] therefore the third element made up of six tetrahedra forming an equilateral triangle in plan view.\textsuperscript{23} Each Tetrahedra is hinged at either edge.

“Calculation proving the geometry is a cube [refer to diagram]:

A pyramid is formed by four triangles inside an equilateral triangle with the side a. A triangle has the sides a/2, h/3, and 2h/3. The height is $h=\sqrt{3}/3$. The length of the side of the cube is a/2 and thus the volume is $V'=a^3/8$. The pyramids altogether have the volume $6*\pi/4$ area of the triangle height.

Therefore $V=6*\pi*(a/2)(h/3)(h/3)=(1/24)a^3$ therefore is $V=V'/3$\textsuperscript{24}

Project Explorations 2015

Initial studies populate a series of invertible cubes attached on one side of three equal sides. Eight invertible cubes together, are to transform into two options. The first option creates a cube and the second, inverse as a Polyhedragami.\textsuperscript{25} Arranging six invertible cubes thirty degrees from each other form a hexagonal geometry.

7. Paul Schatz
8. geometry
Unfortunately the arrangement does not have the same flexibility as earlier studies [refer to page 38-39]. The exploration then studied a sequence of populated invertible cubes to understand what kind of shapes are to arise [refer to page 40-41]. The geometry could not be arranged or scaled differently to complete a cube, its needs to be arranged with supporting bolts to create the perfect solid.

The invertible cube has a direct correlation with the new form of shopping experiences due to its transformable nature. Retail environments no longer just a place to sell specialized products but also multiple events. Due to the constant pressure of the retail industry to transform spaces according to program, the invertible cube offers the flexibility of being deployable and interchangeable. Pop-up structures allow for one store to travel to multiple locations around the world. The chameleonic nature of the geometry allows for various events to take place in the pop-up and to transform in accordance to differing programs. The architecture then becomes a cue for the change of programming and creates the spectacle within the desired location. The Pop-up would be imagined as landscape, a closed roof structure, or to frame space in an urban area. The length of the pop-up at rest would be nine metres with a height of two and a half metres. A platform would be transported along with the structure to provide tracks so the pop-up could transform to a desired state. The incorporation of a platform prevents the scarring of the urban fabric and easier setup of the movable components.
Between the person, brand, and architecture

SURPRISE!
Between the person, brand, and architecture

maximum threshold with ball-bearing joint

move to centre

geometry

exploration model with 3d printed ball-bearing joinery.
The invertible cube makes up a third of a cube on its side. The study then started to attach a series of these shapes to understand the movement it could generate together. When composing eight invertible cubes together, it could transform into two options - refer to images. The first option could create a cube and the second a polyhedragami. The composition at rest would be flat, and when activated through the engagement of a guest, reveals what is behind the flat surface. The project could then work towards using such composition as a skin for the main structure. The micro skin, would reveal the object to be promoted, and overall structure change form to adapt to desired event.
Between the person, brand, and architecture

OP\-TION 1

OP\-TION 2
Between the person, brand, and architecture

2
3
4
5
6

exploration model
Between the person, brand, and architecture
Site
Based on Pop-up structure tendencies highlighted in the first two chapters, consumer and branding theories, a project study project of designing a fashion hub was explored. The site was situated in Limphini a retail and residential district situated in Bangkok, Thailand. Thailand is an interesting study, since it aspires to become the new fashion capital in the Association of Southeast Asian Nation (ASEAN). Through pop-up retailing, the fashion school has two important components: 1. The headquarters of the school are to be permanently set up on the site, and 2. Façade of the building is made up of pop-ups, which act as a shade device when at headquarters, and interactive ephemeral architecture when deployed to other major cities.
Between the person, brand, and architecture

BANGKOK

PATHUM
THANI

SAMUT
PRAKAN

GULF OF THAILAND

RAILWAYS

CANALS

CHAO PHRAYA

POP-UP
The city of Bangkok has many urban informalities expressed through its vibrant, temporary market spaces and food carts. This makes Pop-up shops well suited for the city. Zoning in Bangkok are not based on a strict set of regulations. The site is bound by a residential tower in west and embassy on the east. A sky rail runs the main street and a stop is already placed in front of the site, a crucial access for the general public.
Between the person, brand, and architecture

LONG-SECTION

- restaurant
- outdoor theatre
- lecture hall
- studio core
- gallery
- fabric shop
- exhibition / market
- administration
- parking
- library

POP-UP
Program

The main studio and class spaces are arranged centrally through a vertical core. Supporting program such as library, fabric store, and lecture spaces are easily accessible from the main core. The pop-ups on the Northwest are removable by a mechanical arm. As the Pop-Up slides down different floors, students and faculty could load projects, mannequins, furniture and sewing machines etc. It would include any material or object that might be later be used by the students to display their work within the temporary set up at given city.

The Pop-up structure is covered with a perforated metal skin supported by an aluminum skeleton. The invertible cube runs along a three-point track towards the centre, allowing it comfortably to transform in shape. The skin, skeleton, and track are locked in place to allow easy transition between facade or pop up platform when deployed. Within the skeleton, a wooden grid for students to package their work for deployment.
Between the person, brand, and architecture

Pop-up Facade
The mechanical arm are inspired by an elevator structure to transport the Pop-ups vertically. An additional steel gantry supported by the vertical structure allows the mechanical arm to run horizontally, allowing the arm to reach any Pop-up. Hydraulics are set into the beam to move the arm forward, into the hexagonal structure and remove Pop-up from the facade. Once the mechanical arm has latched onto a Pop-up module, it slides down to ground level and places the pop up onto a truck for deployment.
Between the person, brand, and architecture

OPTION I
- shading system
- along facade

OPTION II
- deployed pop-up platform

Key components:
- skin
- skeleton
- track
- facade
- platform
Between the person, brand, and architecture

storage within each compartment

joint movement along linear axis

one module.

sliding mechanism towards centre.

OPTION I
slide mechanism onto facade and secure using hinge mechanism

OPTION II
slide mechanism onto platform for pop-up.
Between the person, brand, and architecture
Between the person, brand, and architecture
Between the person, brand, and architecture
Between the person, brand, and architecture
Between the person, brand, and architecture

1:10 reflective study model.
From landscape to enclosed space.
Endnotes


3. Ibid.

4. Ibid.


6. Ibid.

7. Ibid.

8. Ibid.


12. Ibid.


14. Ibid.


16. Ibid.


18. Ibid.

19. Ibid.

20. Ibid.

21. Ibid.


23. Ibid.


27. Ibid.
DEPLOYMENT
HOW DOES A POP-UP TRAVEL?
Setting up in major cities

Increasingly, cities are attempting to push out cars from the city core and invest in people-focused public spaces. A people centric city core allows for Pop-ups to flourish and engage with potential consumers. The geographical locations of Pop-up shops vary depending on brand portrayal and consumer demands. Flash shops also referred as pop-ups are meant to adapt to any location within the city, however the most successful Flash shops are independent structures in public spaces. Independent set ups like the Transformer by OMA gains maximum exposure, and for a short period of time invigorates a traditional landmark in South Korea without permanently altering the existing architecture. Pop-ups could be set up within a building, but ones that truly shock the consumers are deployed within unconventional places. Ideally, a Pop-up shop is in sight of high traffic public areas within the city such as: plazas, walkways, or between buildings. A Pop-up could deploy within hidden areas of the city and only include invited followers, in which case word of mouth and the sense of exclusivity define the brand. Since pop-up stores can deploy to various locations around the world, the method of deployment needs be explored. The Pop-up’s dimensions should comfortably allow for transportation by boat, vehicle, and plane depending on the location of the city. Due to the size, it should easily integrate itself within different public spaces.

Details

Two pop-ups could stack to form a 4.5 metre cube. When stacking pop-ups, one of the geometries will be resting on its side, forming a third of a cube and the other will be disassembled into six tetrahedra that slide in between the void spaces of the geometry [refer to page 71]. Running a 45 degree angle would allow the space for two pneumatic frames to slide into place; inserted from opposite ends [refer to page 71]. The pneumatic frames when in proper location are to be inflated for the spectator to walk on. The tracks hinge to the pop-up, and move occasionally towards the centre to change form and therefore changing event. The pop-ups are made up of aluminum frames, and perforated metal covering, therefore making it much easier to deploy regardless of method.

The pneumatic platform are 11 metres in diameter, with a triangular metal core with three track arms for the Pop-up to run along. The tracks are a guide for the structure to transform in a controlled manner. Pistons within the plastic casing of the inflatable would be used to constantly level the base [refer to page 74]. A hard shell plastic platform separate from the original casing would be placed on top of the pneumatic, creating a protection for the inflatable, and the ability to change the colour or pattern of the floor space.
Deployment of architecture
Specifications

The strategy of deploying a Pop-up varies according location and city. The usage of car, boat, and air transit will be major modes of transportation for the Pop-up to transfer from one city to the next. Generally, the Pop-up from Project study one are mainly transported via vehicle, but other forms of transportation such as plane and cargo boat are considered. If the flash shop needs to deploy to another city quickly, transport by plane is efficient but costly. Transporting by cargo boat is much less expensive, however it would take weeks to deliver.

In order for the Pop-up to be successfully deployed; the urban space must be large enough for access. The Pop-up can only be deployed in an open flat space of a minimum 12 metres square and a minimum height of 6 metres. The ground plane of the open space needs to be relatively flat in order for the platform to be placed and stable for consumers to walk on. The platform and Pop-up could not be set up on any angled planes or hilled areas to prevent the geometry from disjointing from the platform.

The vehicle used for transport on road is a standard Heavy rigid truck. The back of the truck would be an open platform, with an oversize banner placed on each extremity. There would be a side overhang of 1 metre on either side, package held in place using straps and protected by tarp. - For heavy rigid truck specifications - refer to 741. Transporting by air is much quicker than transporting by cargo boat, however cargo boat is less expensive and is easier for cities with waterfronts. The usage of boat or plane is considered for transporting overseas or over large distances. In every case, the package would arrive in a port or airport, and the truck would transport to destination.
Deployment of architecture

STRAPPING INTO PLACE

WIDE LOAD SIGNAGE

MAX OVERHANG OF 4 METRES

REQUIREMENTS
The goal was to find a new way to break the outer shell of retail environments through architectural exploration. The framework of traditional in-store shopping has been static since the industrial era; it does not keep up with consumers today. In traditional stores the customer could expect, sterile interior environments, overstock in products, and hostile sales associates. Window displays are one of the few ways shoppers could experience narrative and the idea of the ephemeral from the street. Pop-up retailing is not meant to replace traditional in-store shopping experiences, but rather collaborate with existing monumental structures to create magical spaces characterized by brands. The narrative driven form of marketing opens up to the urban fabric, and creates informal coincidences for the public rather than the internalized structure of department stores.

Branding on the other hand has evolved to become personable over the years. Expressing narrative is very important for the general public to understand the character of the brand. Li Edelkoort is insightful with her predictions, the celebration of individuality, and the focus on clothes and experiences rather than fashion. The future of retail is always unknown, but what is certain is that “People haven’t stopped wanting things, and they won’t stop wanting things.” - Mark Cohen.\(^3\)

The retail industry tries to connect shoppers through various facets, but architecture has yet to reach its full potential. Pop-up retailing is a viable solution to reach the public, and has the ability to transform and change according to current needs and trends. The public would like to witness art galleries, music venue, coffee shop all within one space. The current economy requires experiences to be immersive, and to be personable. Through the study of the invertible cube, the geometry, now structure became the stage which the space could oscillate program.

What could be learnt from Pop-up culture is the exploration of concept and expressing it to the public through architecture and the city at large. Formerly temporary structures were seen as simple, last minute tents to shelter the public. By developing a transformable space that could be easily compacted, and deployed, it rethinks what the future of cities could become. The idea of the ephemeral contrasting the monumental city, how architecture at a human scale could interact with pedestrians, and for a instance become part of the urban fabric, because tomorrow it could just be a memory.
Ideas.
Endnotes


3 Jennifer Reingold, P. W. (n.d.). Where have all the Shoppers Gone. 80-84.
Postscript

The exploration of this thesis was meant to capture the spontaneity of ephemeral architecture. The retail industry has predominantly invested in pop-ups for leisure and therefore resulted in the first two chapters of the research. Initial studies investigated the effect of colour in retail spaces to induce shopping which created a direct link with traditional frameworks of shopping experience and not applicable to pop-up strategies. Alteration of mood and behaviour provoked by colour in spaces would then turn into a thesis in itself and lose sight of the original exploration. The usages of colours in current retail environments do not follow fundamental theory, meaning it is used to convey narrative. When the usage of colour is meant to piece together a theme from the individual’s memory bank, then the viewer’s mood and behaviour is altered. The recent popularity of temporal pop-ups is a response to shoppers finding different alternatives besides the traditional. Instead of strategizing floor space, colour co-ordination and regulations on trends, the industry heads towards narrative, social engagement, and the development of character for both the individual and the brand itself. Since brands portrayed their image as a character to make themselves relatable, it called for the space itself to engage the individual. The investigation of transformative structures responded directly to the idea of engagement, and need for multiple experiences within one space.

The geometry ties together all the notions of what the future of retailing should be, and a response to the stagnant nature of the traditional. The invertible cube is not meant to be explored and applied to any brand, if so, it defeats the purpose of the study itself. It was meant to represent a relationship between the individual, brand and architecture. Therefore, pop-up spaces are meant to be one of kind and tailored to create a lasting impression. The geometry in its early stages was explored as an interactive skin, hiding behind it products, and only revealing it to certain viewers. It was to find a way to create the surprise effect to the shopping experience. However once the study began to populate a series of invertible cubes the idea would not be feasible. The more geometries are placed together, the stiffer the skin became, and resulted in the loss of its transformable properties. The focus then shifted to one invertible cube and turning it into a space. Throughout this phase of the exploration of 3d joints were developed to actuate the geometry. The movement was limited and needed more testing to refine the joinery to enhance the transformation. In the current study, the geometry could transform along a track to create a multiple shapes and experiences. However, the joint would not let the structure completely invert on itself. Further developments of the joinery could allow the possibility of the invertible cube to invert on itself, while safely sliding along the track.
Major themes drawn out throughout the text could be applied to other types of pop-up structures. The majority of pop-up structures are at a human scale, components are to be easily assembled and later repackaged to deploy. It is customary to transport pop-up structures to neighbouring cities. However if a pop-up were to be transported from one continent to another then an easier solution would be to reconstruct another iteration. At first glance the notion of transporting a pop-up structure seems like a hassle, when in reality most of the goods and products retrieved currently come from a cargo ship or plane. Pop-up structures are meant to change the urban fabric for an allotted amount of time, but a critic brought up that public themselves affect the temporal structure. When it is transported to another city, then the essence of the previous community is revealed within the space. This idea would be applicable but would need to be tested and studied before making any conclusions on effects and alteration of mood and behaviour. The surprise is no longer just the structure and narrative but also the encapsulated message within the structure itself from the previous community.
Illustrations


4. Ibid.


*All other visualizations, and videos developed by John Gaitan
Works Cited

**Book:**


**Journal:**


**Magazine:**


Website:


Video:


