

MOBILE PUSHCARTS_MID-REVIEW



BOSTON BID_BUSINESS IMPROVEMENT DISTRICT

TABLE OF CONTENTS

HISTORY AND FIELD RESEARCH

Timeline.....3
Mobile Vending Breakdown.....4
Retail Pushcarts Site Photos + Analysis.....5
Retail Mobile Units Site Photos.....6
Vendor Feedback and Takeaways.....7

PRECEDENT ANALYSIS AND INITIAL DESIGN STRATEGIES

Pushcart Concepts.....8
 Hinge.....9-13
 Slide.....14-17
 Pack.....18-22
 Stack.....23-27
 Canopy.....28-32
 Pop-out.....33-37
Concepts Summary.....38

HISTORY AND FIELD RESEARCH

TIMELINE

1700



1700-1750

The original Boston settlers used pushcarts to sell produce and meat.

Early outdoor markets were established at Dock Square, North Square, and South Market before shutting down in just a few years due to contention among residents.

Faneuil Hall opens in Boston. Vendors sold meat, fish, and produce. Building is rebuilt due to a fire burning down the original structure.

1750



1750-1800

A Texas rancher invents the chuckwagon to help feed cowboys while out rounding cattle in the fields.

1800



1800-1850

Haymarket Square is established, expanding the Market District footprint.

Quincy Market opens in Boston adjacent to Faneuil Hall.

Boylston Market opens at the corner of Boylston and Washington Streets.

Specialized mobile food vending options start to pop up, such as the Night Owl Lunch Wagon.

1850



1850-1900

Boston mandates that "every peddler engaged in selling in the public street will be registered and furnished a number."

Army Mobile Canteens were used during World War I to bring food and supplies to soldiers.

1900



1900-1950

According to the Boston Globe study, Boston is home to 800 recorded peddlers, mainly Greek and Italian immigrants

Efforts to "clean up" the streets and effectively eliminate pushcarts backfired.

1950



1950-2000

The construction of the Central Artery affected sales in the Market District

The invention of the roach coach introduced urban environments with a new mode of convenient and affordable street food.

Emerson College moves their campus to Downtown Boston, investing nearly half a billion dollars in the district.

2000



2000-Present

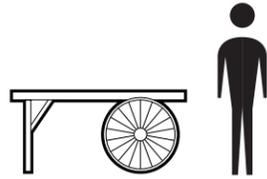
Boston Public Market opens in Haymarket, acting as the first major development project in the Market District in decades.

The food truck craze sweeps the nation, branding street food as a common, tasty, and affordable dining option.

PRESENT

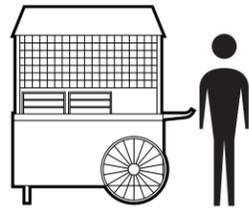
HISTORY AND FIELD RESEARCH

MOBILE VENDING BREAKDOWN



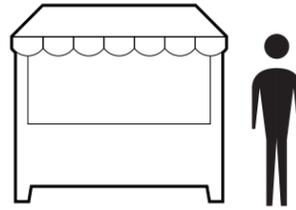
TABLES + NON-PROCESSING FOOD CARTS:

Tables and non-processing carts are the smallest of the mobile vending types and are typically operated by a single vendor who operates next to the cart/table on the sidewalk. By definition, no processing of food is done on these carts; instead, pre-cooked foods -like pretzels or hot dogs - are kept warm. In terms of retail, these are often non-registered pushcarts that operate without permission from the city. Non-processing carts cost around \$3000.



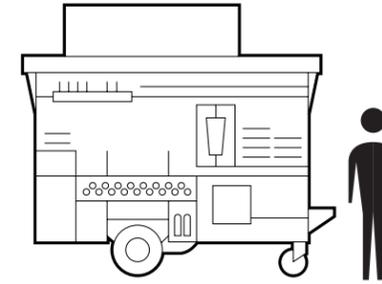
RETAIL PUSHCARTS:

Retail pushcarts are usually independently owned and service a large variety of merchandise. It is common for vendors to alternative types of merchandise to target buyers during the changing seasons. Retail pushcarts offer vendors flexibility and freedom in whichever merchandise they choose to sell.



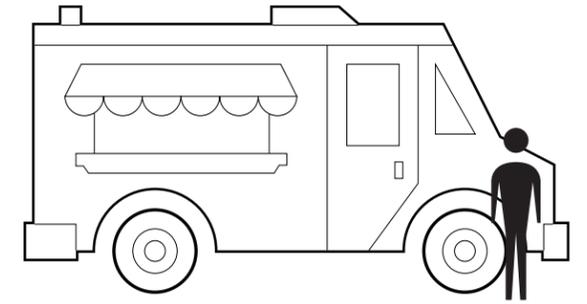
POP-UP STORES:

Similar to retail pushcarts, pop-up stores sell a variety of merchandise, dependant on the season. In comparison, pop-up stores stand in representation of a larger organization and are funded, owned, and operated by said organization. Pop-up stores often act as a tool for corporate retail chains to test out a specific retail location before investing in a brick-and-mortar shop.



PROCESSING FOOD CARTS:

Processing carts are larger and often require more than one vendor. Vendors of processing carts typically operate inside the cart where food is prepared and cooked. Processing carts cost between \$15,000 and \$30,000 and also operate on the sidewalk.



FOOD TRUCKS:

Food trucks are the largest food cart type. Food is typically processed on board these trucks, and multiple vendors are often required to run these larger operations. Food trucks cost \$80,000 or more. The high capital investments associated with food carts means Food Vendors do not typically own their own carts.

HISTORY AND FIELD RESEARCH

RETAIL PUSHCARTS SITE PHOTOS + ANALYSIS 01/14/2016



PROS

- ✔ four-sided display space
- ✔ merchandise displays can be added or customized by the vendor's specifications
- ✔ warm, soft wood surfaces are welcoming in the shopping experience
- ✔ strong, sturdy wagon wheels are very durable



CONS

- ✘ pushcart is not waterproof and it does not provide shelter for vendor or buyer
- ✘ merchandise exposed to potential weather damage
- ✘ does not actively protect merchandise from theft
- ✘ difficult to push/roll around
- ✘ stylistically, pushcarts are outdated
- ✘ does not incorporate marketing/display signage
- ✘ does not include compact foldable seating for vendor or buyers
- ✘ large and/or not compact pushcart design
- ✘ wheels are not lockable, subject to moving when in a stationary position



HISTORY AND FIELD RESEARCH

RETAIL MOBILE UNITS (RMUs) SITE PHOTOS



PROS

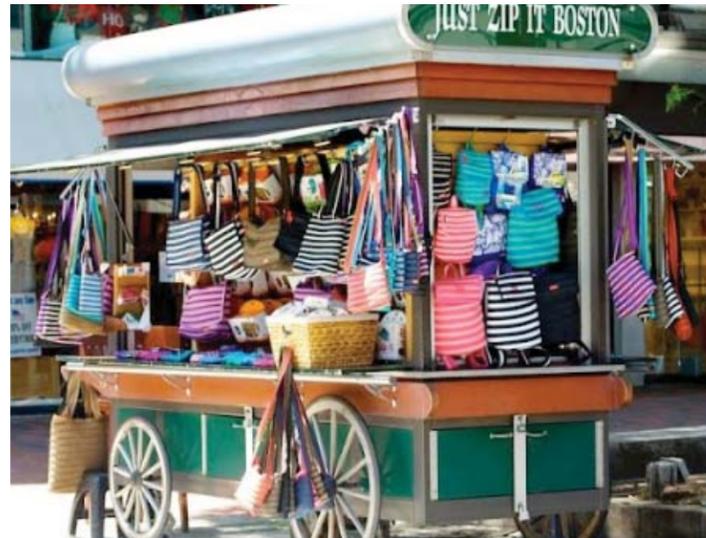
- ✔ very compact design, occupies little space when closed
- ✔ provides a variety of display options that could accommodate a number of different types of merchandise
- ✔ provides shelter for vendor or buyer
- ✔ shelters merchandise in order to prevent potential weather damage
- ✔ lights incorporated into design
- ✔ fully lockable after operating hours

CONS

- ✘ does not actively protect merchandise from theft
- ✘ does not include compact foldable seating for vendor or buyers
- ✘ cold/hard surfaces are unwelcoming in the shopping experience
- ✘ wheels are not lockable, subject to moving when in a stationary position
- ✘ aesthetically, pushcarts are unattractive and dark

HISTORY AND FIELD RESEARCH

VENDOR FEEDBACK AND TAKEAWAYS



SHELTER

Although the current pushcarts somewhat incorporate a protective roof, it is insignificant in properly sheltering the merchandise and vendor. New pushcarts should provide enough shelter to allow pushcarts to remain open while it is raining.

STORAGE

Currently, vendors keep excess goods in secondary bins and boxes that sit adjacent to the pushcart. This conflicts with the cohesive identity of the BID pushcarts. As a solution, pushcarts should include storage compartments.

MOBILITY

Pushcart mobility relies heavily on the durability of the wheels and the weight of the pushcart itself. Currently, the pushcarts have mahogany wagon wheels, which despite being durable are extremely outdated.

SEATING

Most pushcarts do not accommodate seating for vendors or buyers. Integrating seating would allow vendors the opportunity to sell merchandise longer. Pop-up seating for buyers would activate the streetscape.

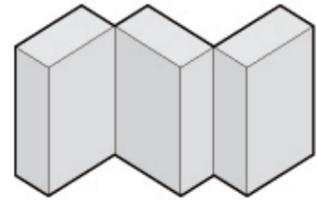
LIGHTING

Pushcarts typically shut down after sunset because the current pushcarts do not incorporate lighting. Designing the new pushcarts to include lighting would extend the operating hour potential of pushcarts and help light up the street at night.

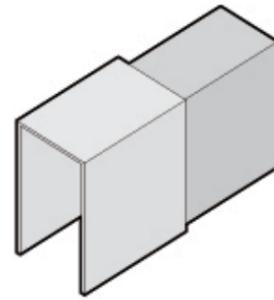
SECURITY

Although the four-sided pushcart maximizes display area, it sacrifices merchandise security. How can we address this issue so that both vendor merchandise and the pushcarts themselves are free from theft and vandalism.

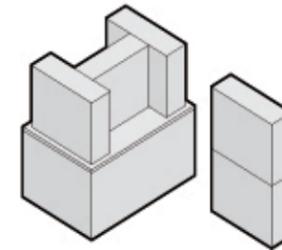
CONCEPTS



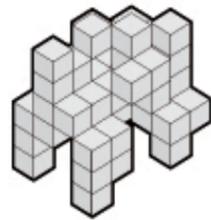
HINGE



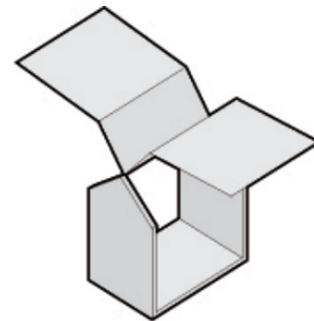
SLIDE



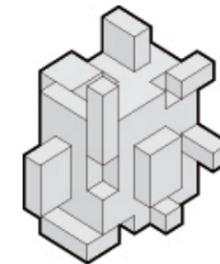
PACK



STACK



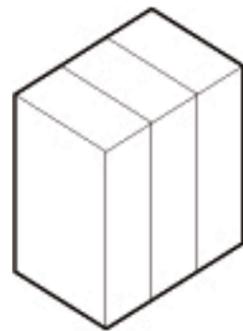
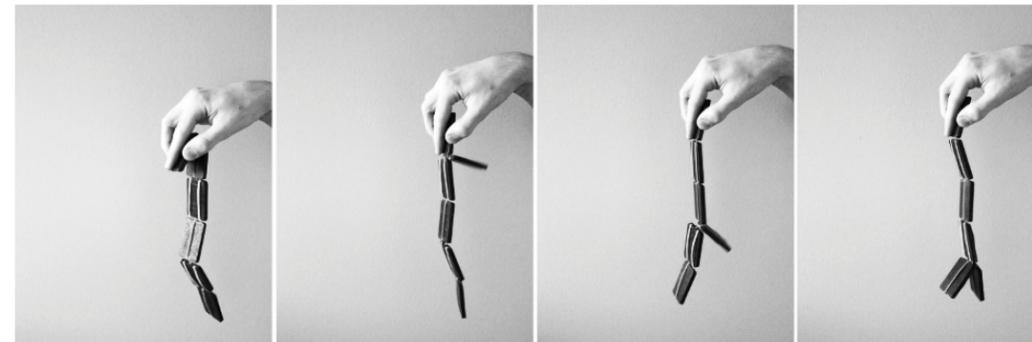
CANOPY



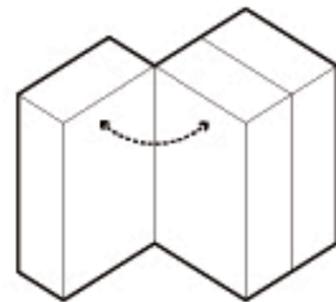
POP-OUT

HINGE

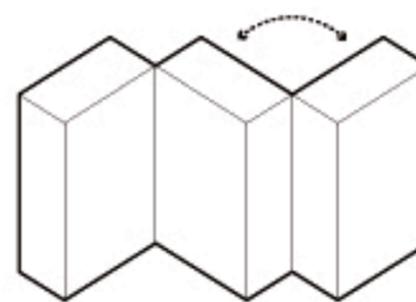
a flexible system in which modular display elements hinge together in order to easily expand and collapse



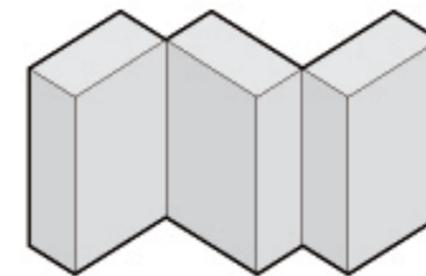
CLOSED



UNHINGE ONCE



UNHINGE AGAIN



OPEN FOR BUSINESS

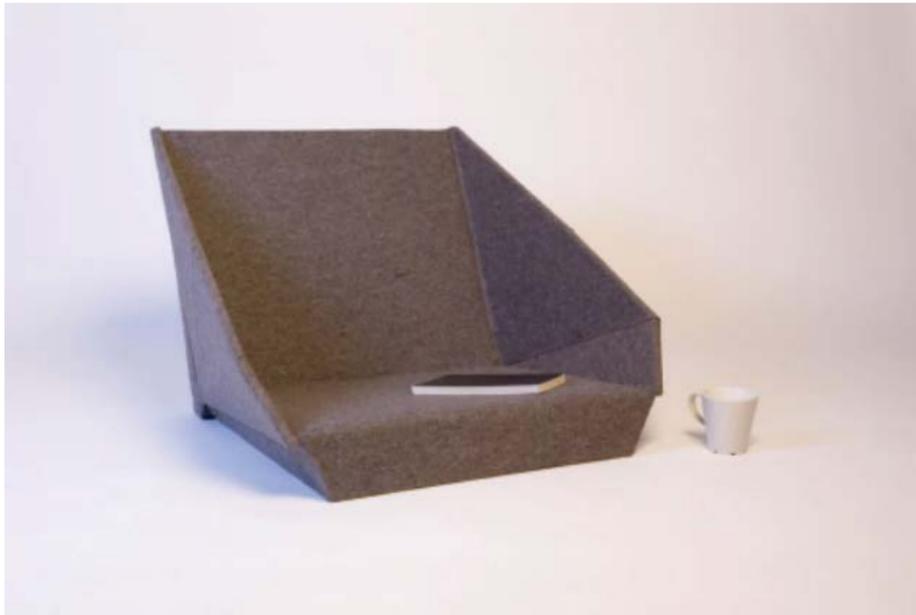
HINGE

FOLDABLE ROOM_ TOSHIKO SUZUKI



HINGE

OYSTER_ KAWAMURA-GANJAVIAN



HINGE

THE POUNDSHOP MOBILE STAND_ SITRAKA



PROS

- ✔ flexible design with several possible configurations
- ✔ very compact design, occupies little space
- ✔ provides a variety of display options that could accommodate a number of different types of merchandise
- ✔ shelters merchandise in order to prevent potential weather damage
- ✔ potential to use any surface for branding and marketing materials
- ✔ fully lockable after operating hours
- ✔ warm, soft wood surfaces are welcoming in the shopping experience

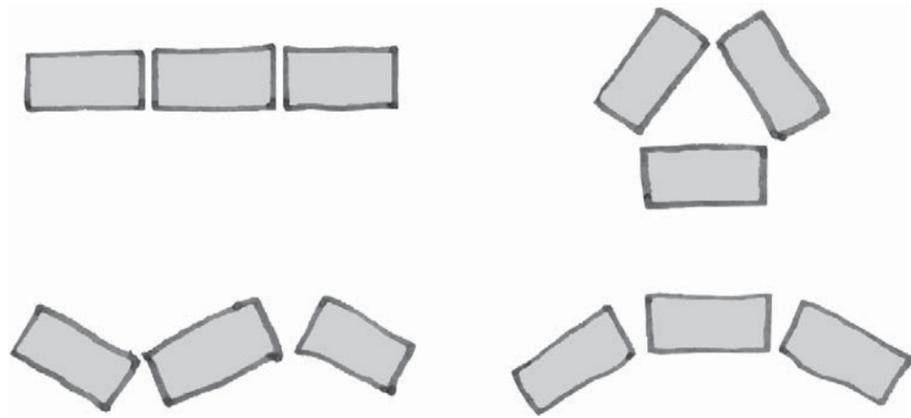
CONS

- ✘ vendor cannot add display elements to fit their preferred merchandise style
- ✘ does not provide shelter for vendor or buyer
- ✘ does not actively protect merchandise from theft
- ✘ does not include compact foldable seating for vendor or buyers
- ✘ merchandise exposed to potential weather damage

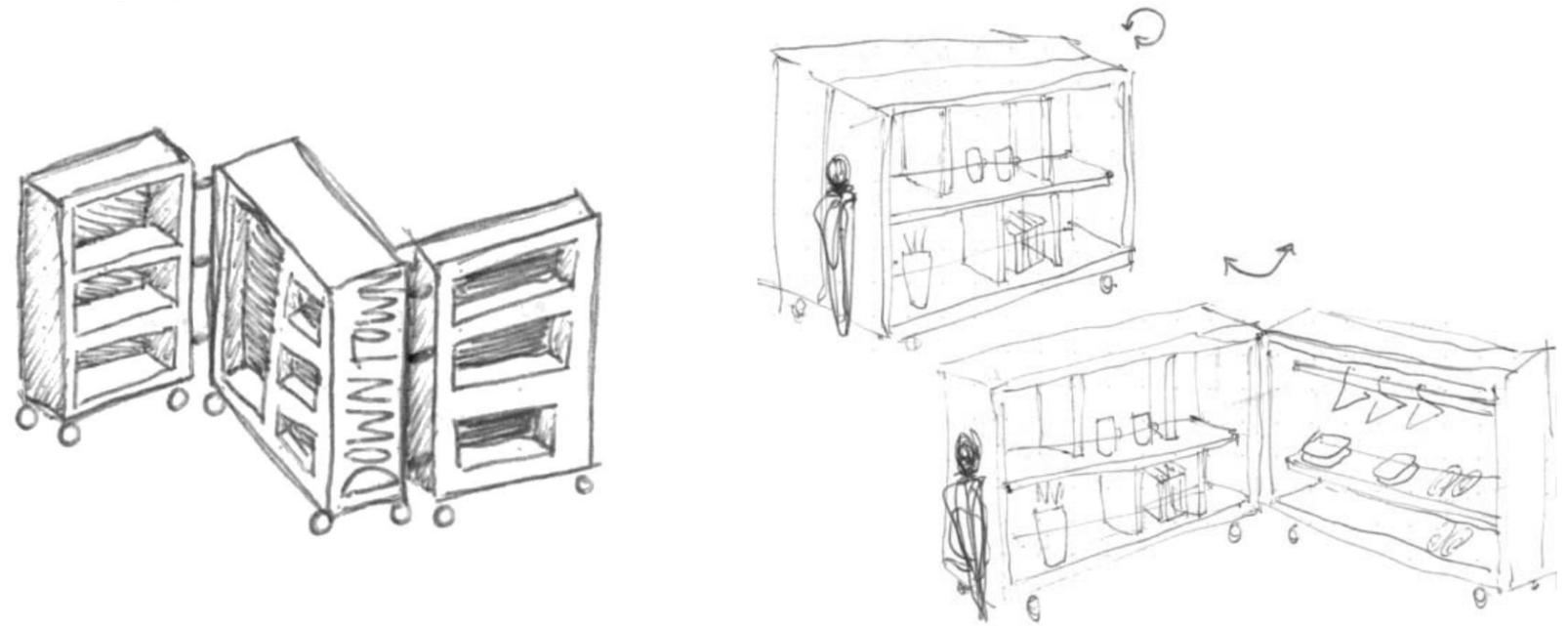
HINGE

SKETCHES

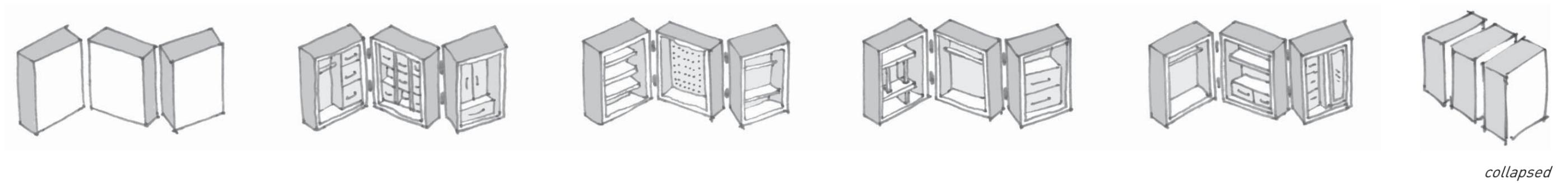
POSSIBLE CONFIGURATIONS



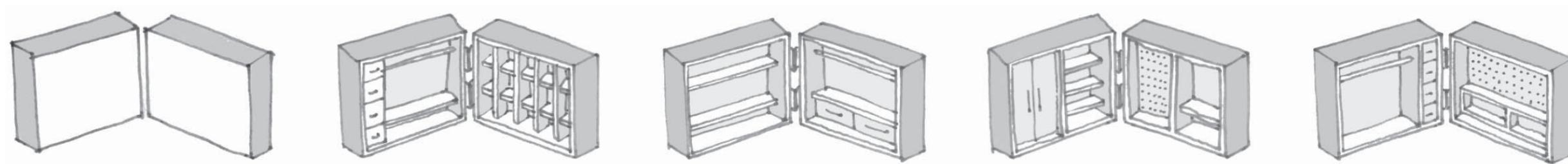
ARTICULATION



THREE MODULES

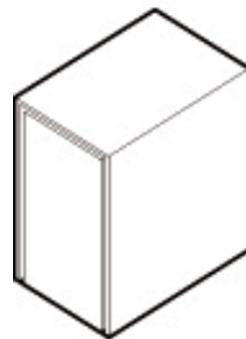


TWO MODULES

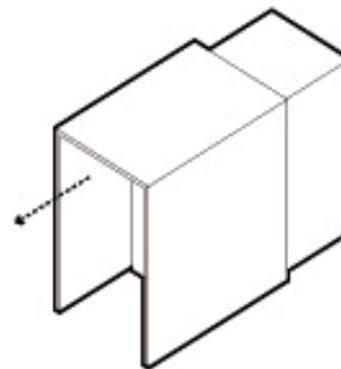


SLIDE

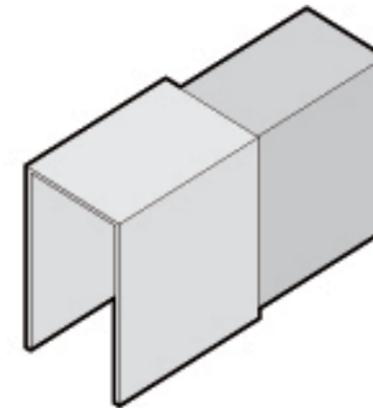
operable shelter slides out to create secondary space adjacent to pushcart while also protecting merchandise after operating hours



CLOSED



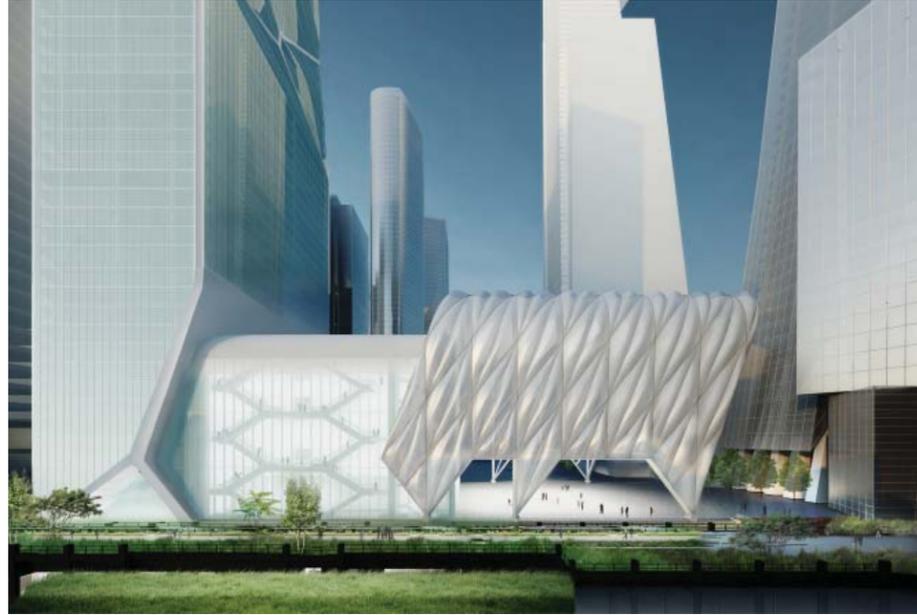
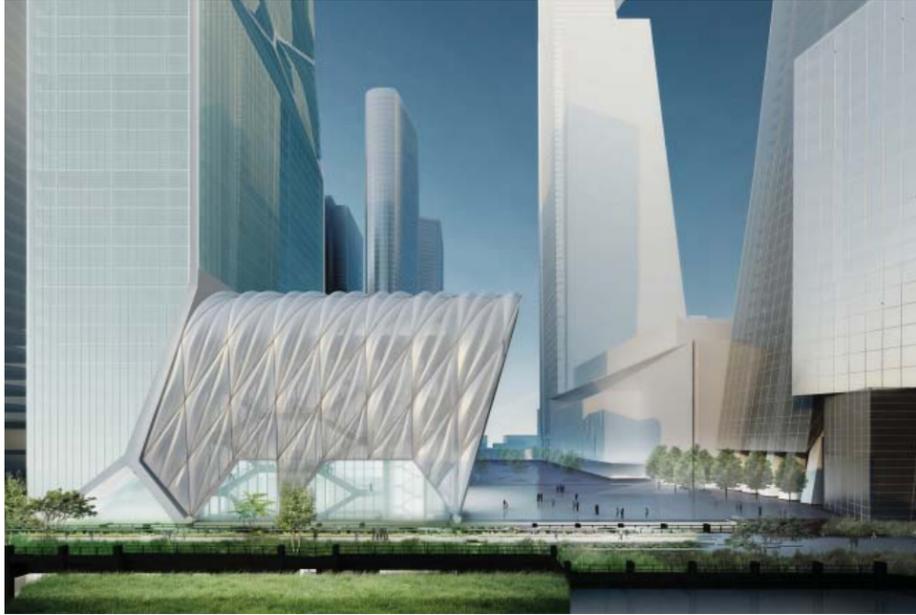
SLIDE



ADJOINING SHELTER

SLIDE

CULTURE SHED_DILLER SCOFIDIO + RENFRO



SLIDE

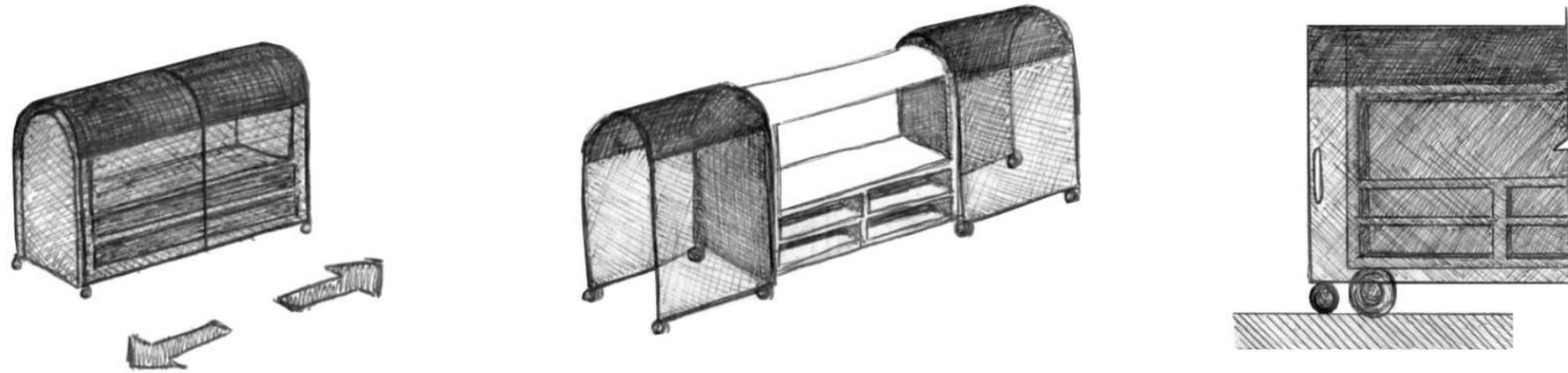
SLIDING HOUSE_dRMM



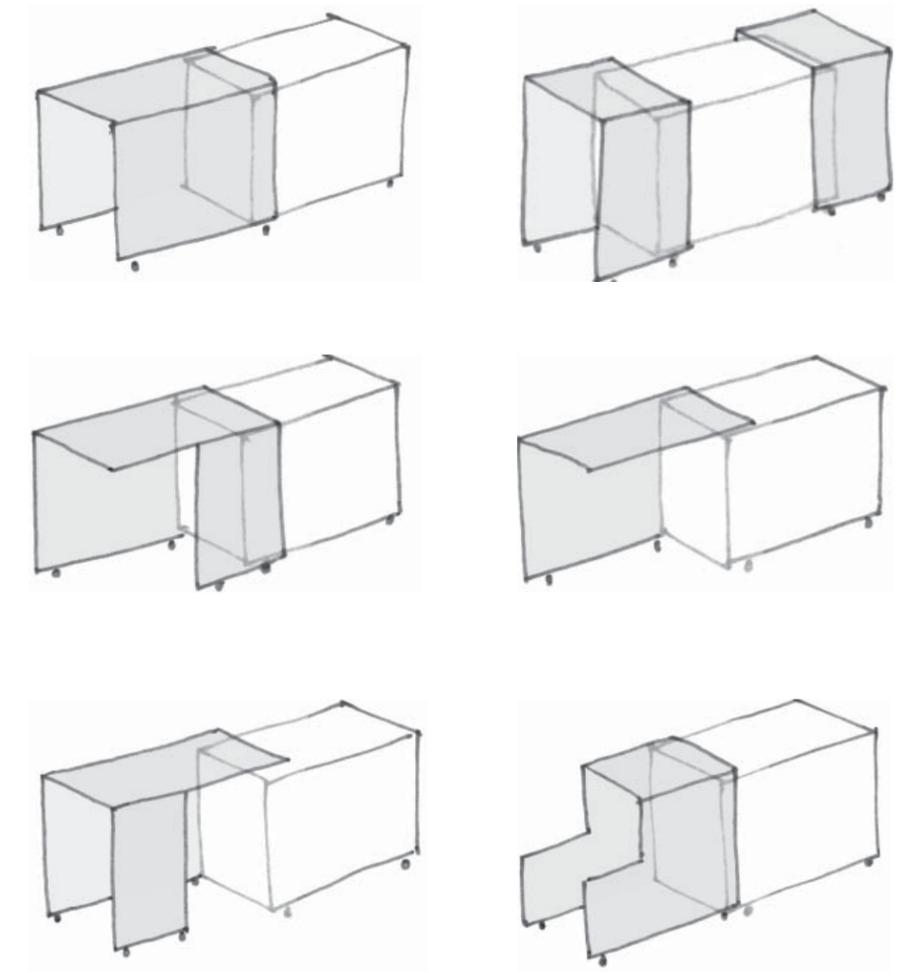
SLIDE

SKETCHES

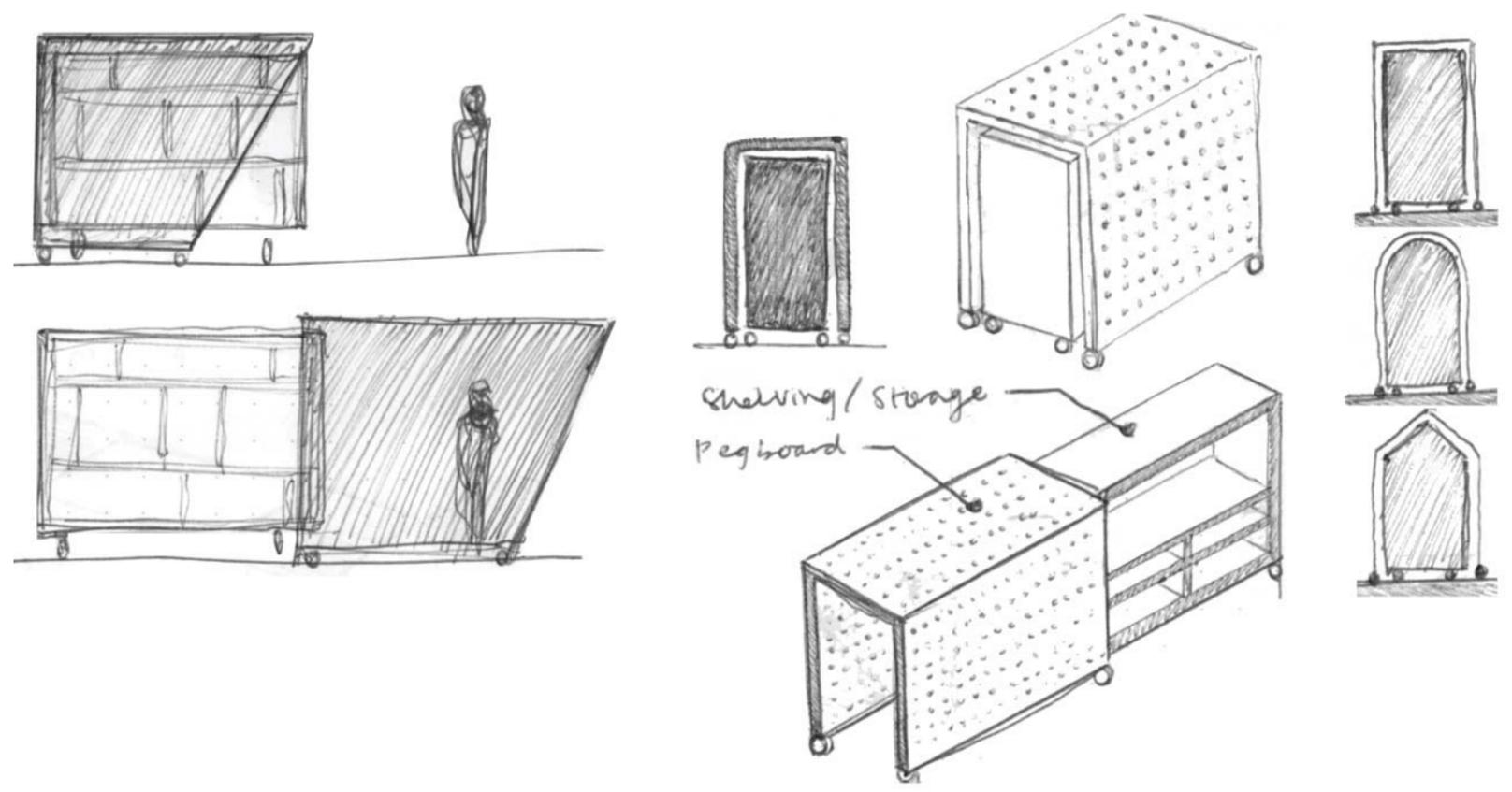
CLOSED VS OPEN



POSSIBLE ITERATIONS

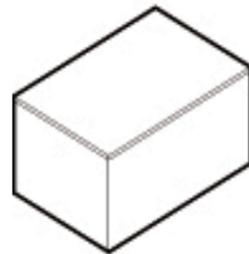


CANOPY ARTICULATION

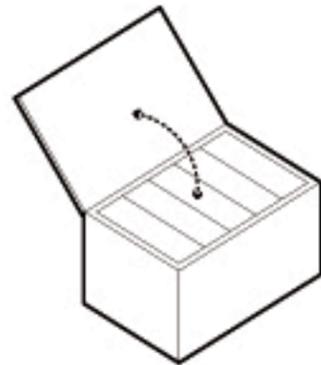


PACK

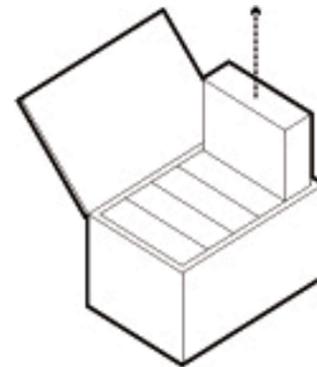
offers vendors customizability of merchandise displays and easy portability as an added bonus



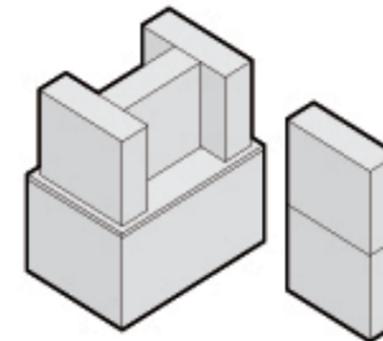
CLOSED



OPEN LID



PULL OUT DISPLAYS



SET UP DISPLAYS

PACK

UNI_HOWELER YOON



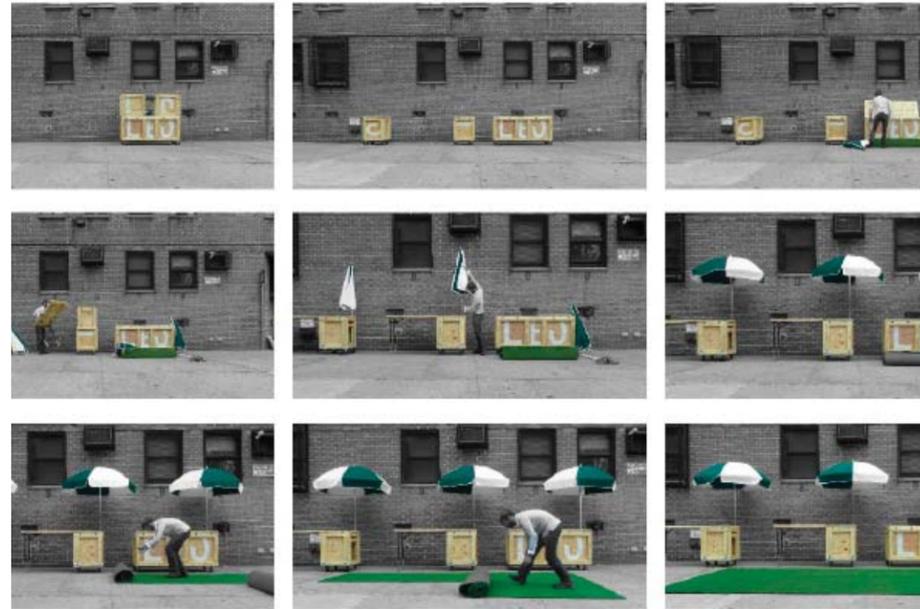
PACK

MODULAR STREET MARKET_DUB STUDIOS



+

=



PACK

MOBILE KITCHEN_GENEVA UNIVERSITY OF ART AND DESIGN



PROS

- ✔ provides a variety of display options that could accommodate a number of different types of merchandise
- ✔ warm, soft wood surfaces are welcoming in the shopping experience
- ✔ includes compact foldable seating for vendor or buyers

CONS

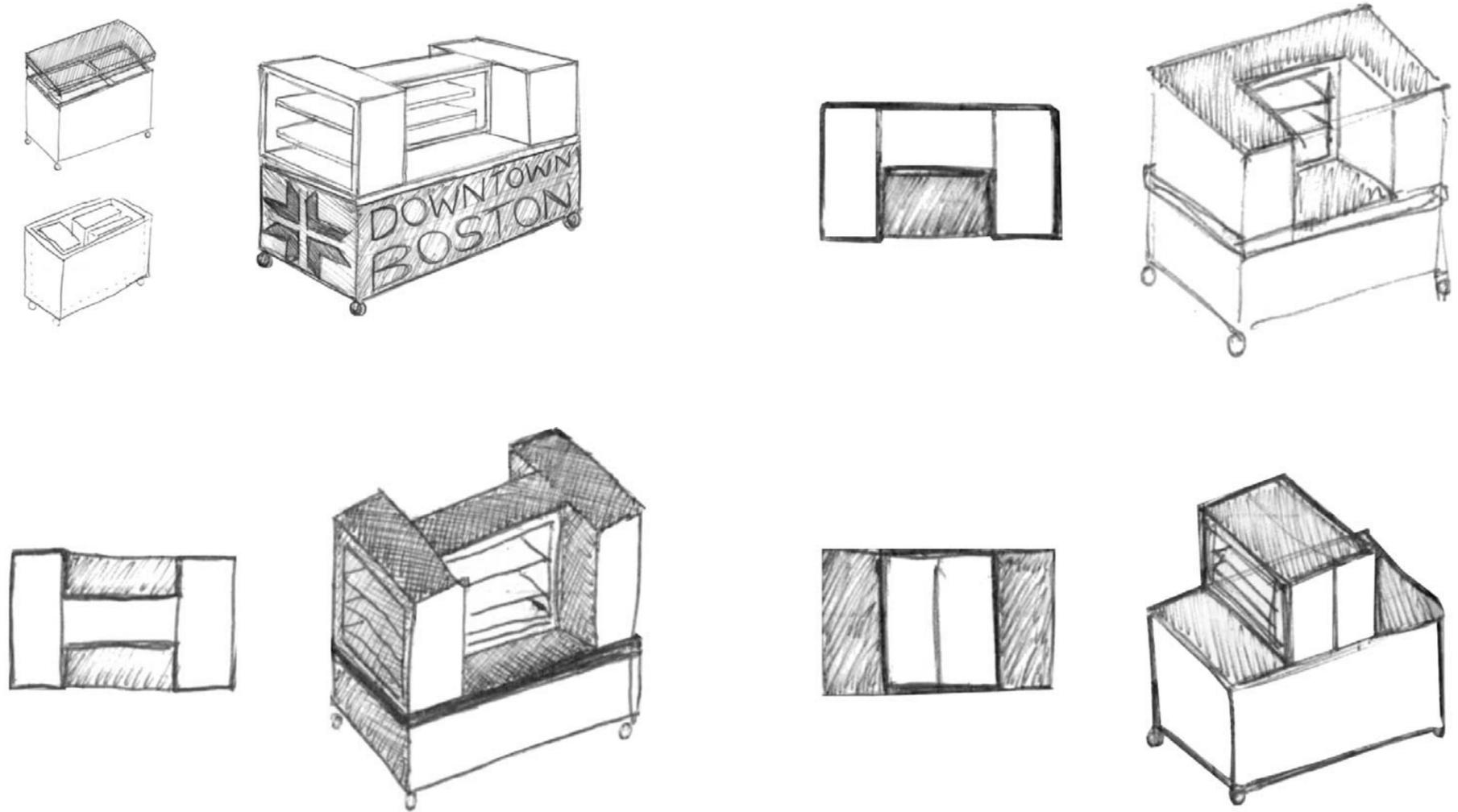
- ✘ vendor cannot add display elements to fit their preferred merchandise style
- ✘ does not provide shelter for vendor or buyer
- ✘ does not actively protect merchandise from theft
- ✘ merchandise exposed to potential weather damage
- ✘ large and/or not compact pushcart design

PACK

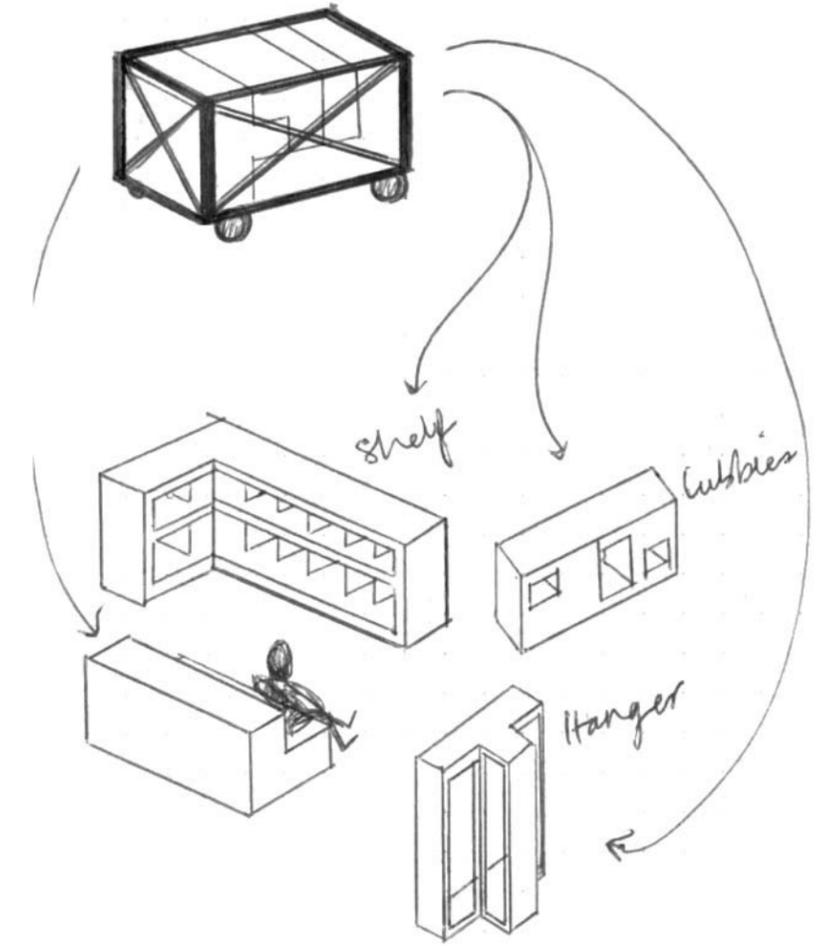
SKETCHES



POSSIBLE CONFIGURATIONS

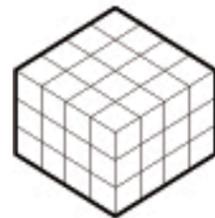


PACKAWAY MODULES

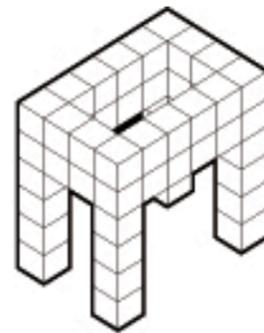


STACK

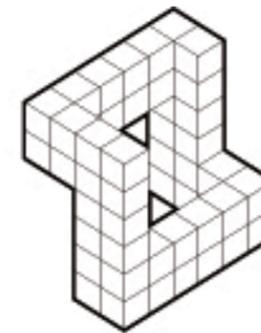
modular stacking display components give the vendor the power to easily change the look and functionality of their pushcarts



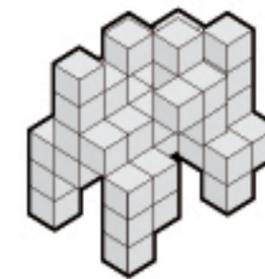
MODULES



STACK



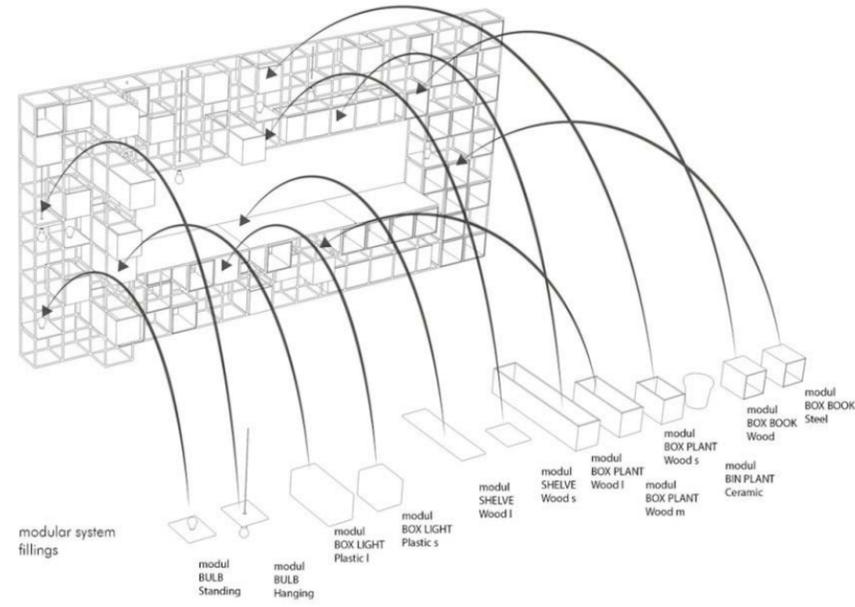
STACK AGAIN



...AND AGAIN

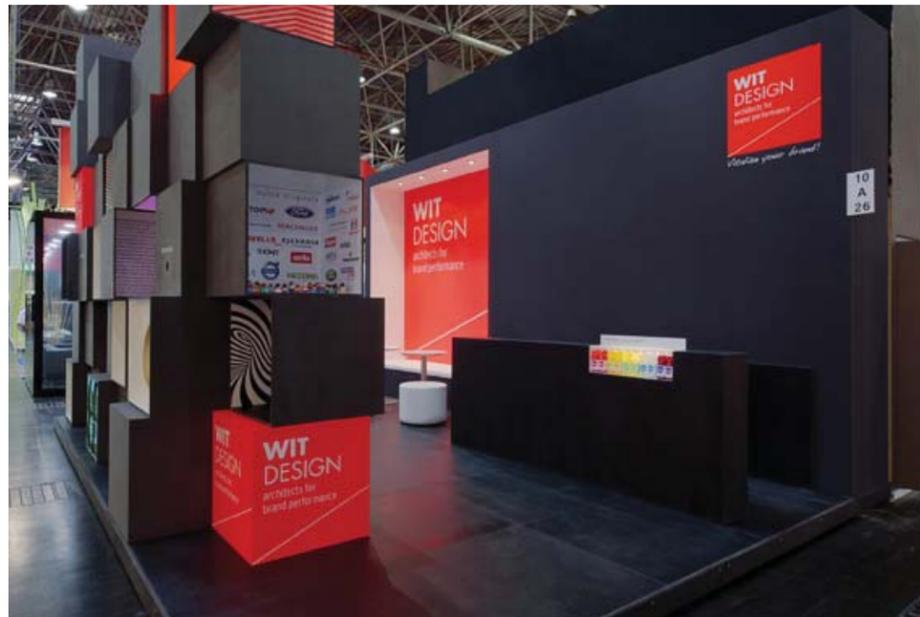
STACK

HOME CAFE_PENDA



STACK

STAND WIT DESIGN



STACK

STEEL STOOL_NOON STUDIO

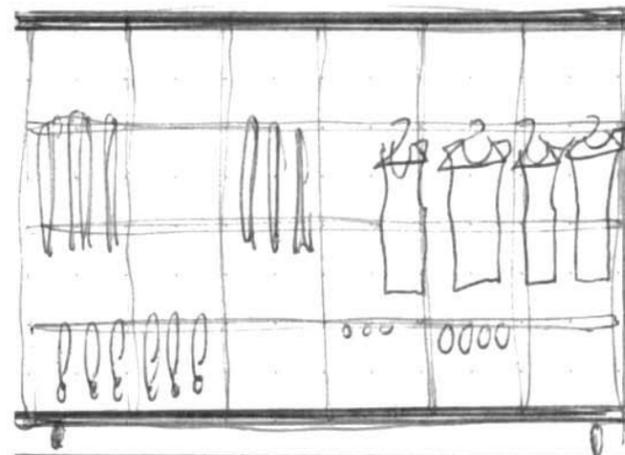
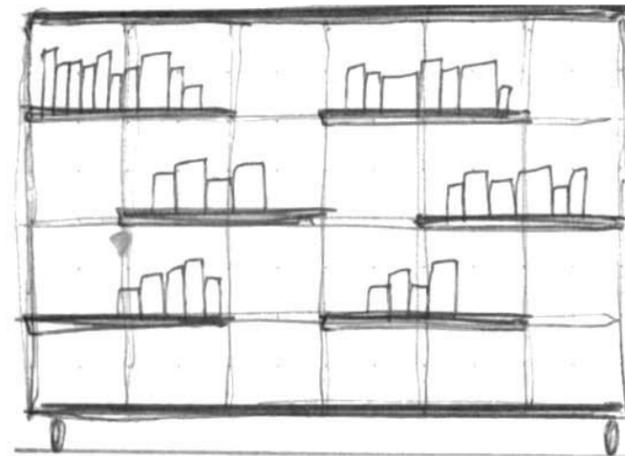
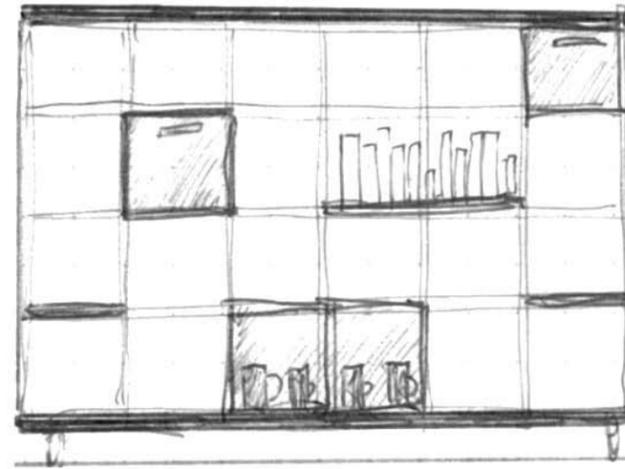
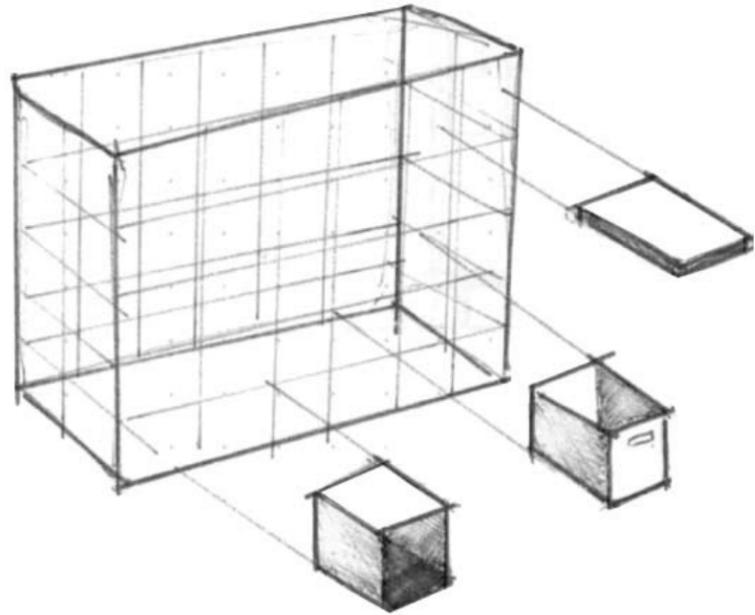


STACK

SKETCHES

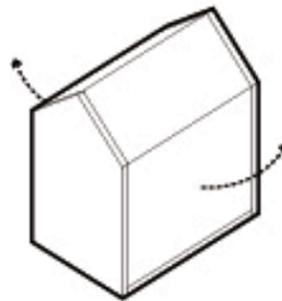


POSSIBLE CONFIGURATIONS

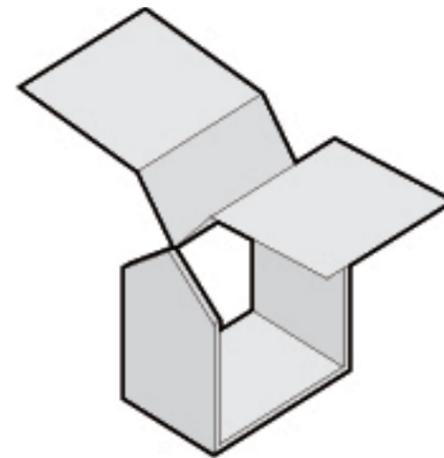


CANOPY

when closed, enclosure keeps merchandise secure from theft;
when open, enclosure becomes a canopy sheltering merchandise and vendor



RAISE CANOPY



OPEN

CANOPY

MILWAUKEE ART MUSEUM_SANTIAGO CALATRAVA



CANOPY

MOBILE RETAIL CART_MVU



PROS

- ✔ provides shelter for vendor or buyer
- ✔ shelters merchandise in order to prevent potential weather damage
- ✔ extendable table surface
- ✔ includes cashier drawer integrated into design
- ✔ integrates cd, radio, and speakers
- ✔ lights incorporated into design
- ✔ potential to use any surface for branding and marketing materials
- ✔ fully lockable after operating hours

CONS

- ✘ vendor cannot add display elements to fit their preferred merchandise style
- ✘ does not provide an abundance of display area
- ✘ does not actively protect merchandise from theft
- ✘ does not include compact foldable seating for vendor or buyers
- ✘ cold/hard surfaces are unwelcoming in the shopping experience
- ✘ length potentially impedes visibility of brick and mortar retail behind pushcart
- ✘ large and/or not compact pushcart design

PRECEDENT RESEARCH

PENGUIN POP-UP STORE



PROS

- ✓ very compact design, occupies little space
- ✓ includes compact foldable seating for vendor or buyers
- ✓ provides shelter for vendor or buyer
- ✓ potential to use any surface for branding and marketing materials
- ✓ fully lockable after operating hours
- ✓ potential to transform area around pushcart to activate street

CONS

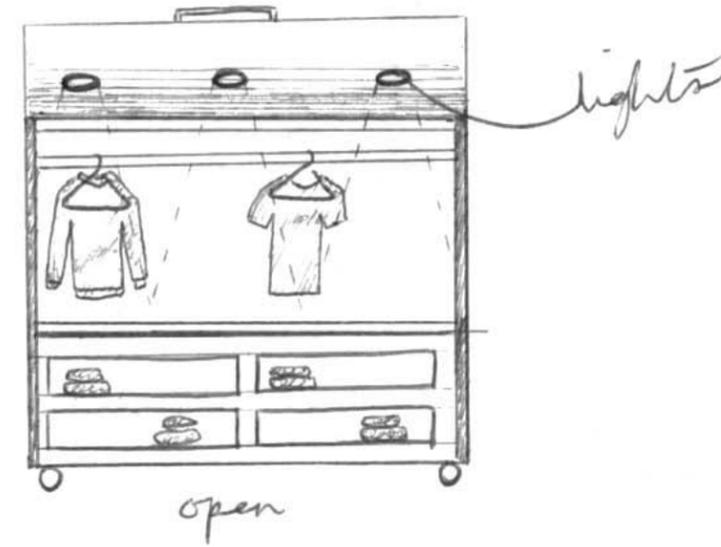
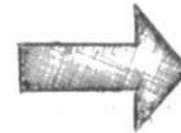
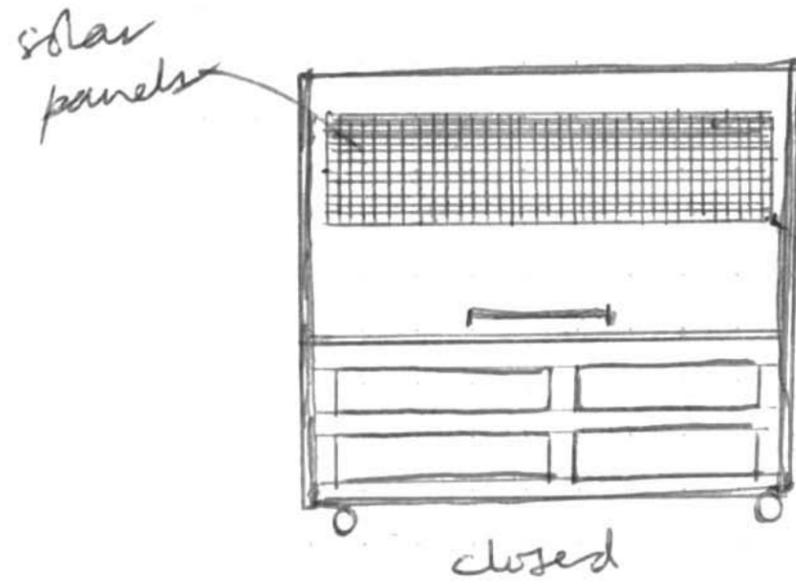
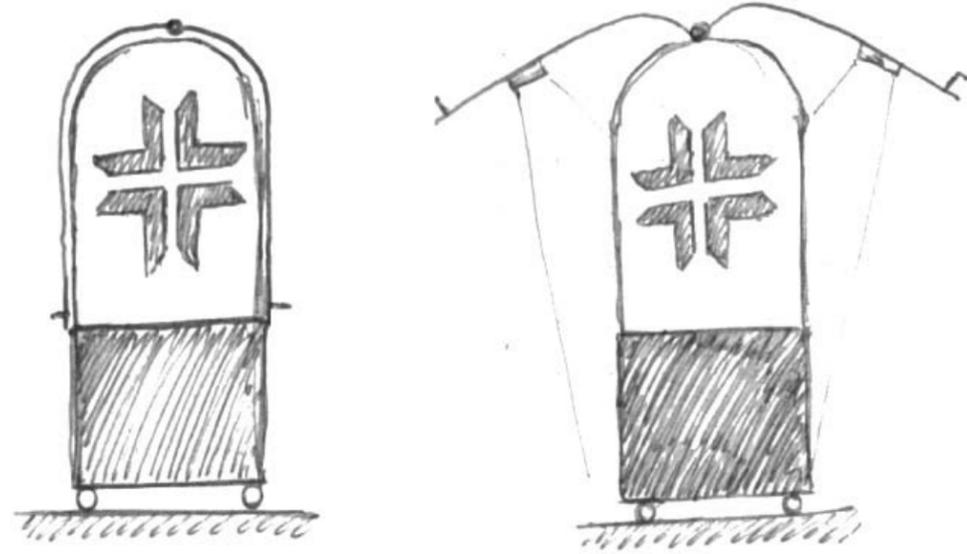
- ✗ vendor cannot add display elements to fit their preferred merchandise style
- ✗ does not actively protect merchandise from theft
- ✗ merchandise exposed to potential weather damage
- ✗ cold/hard surfaces are unwelcoming in the shopping experience

CANOPY

SKETCHES

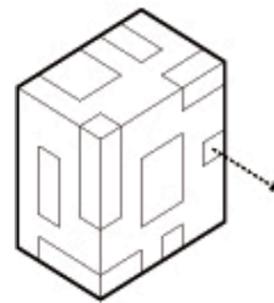


OPEN VS CLOSED

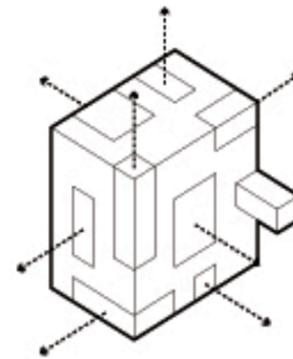


POP-OUT

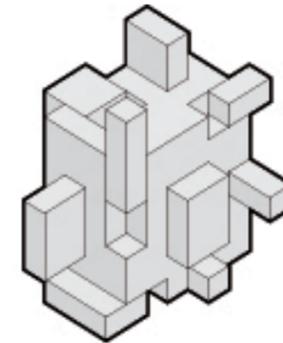
pushcart incorporates pop-up display elements that can tuck away discreetly when not in use



PULL ONCE



PULL EVERYWHERE



OPEN

POP-OUT

SHRINE_SIGURD LARSON



POP-OUT

DRAWER HOUSE_NENDO



POP-OUT

COS POP-UP STORE_CHMARA.ROSINKE



PROS

- ✔ flexible design with several possible configurations
- ✔ very compact design, occupies little space
- ✔ provides a variety of display options that could accommodate a number of different types of merchandise
- ✔ includes compact foldable seating for vendor or buyers
- ✔ extendable table surface
- ✔ warm, soft wood surfaces are welcoming in the shopping experience

CONS

- ✘ does not provide an abundance of display area
- ✘ does not incorporate marketing/display signage
- ✘ does not provide shelter for vendor or buyer
- ✘ does not actively protect merchandise from theft
- ✘ merchandise exposed to potential weather damage
- ✘ vendor cannot add display elements to fit their preferred merchandise style

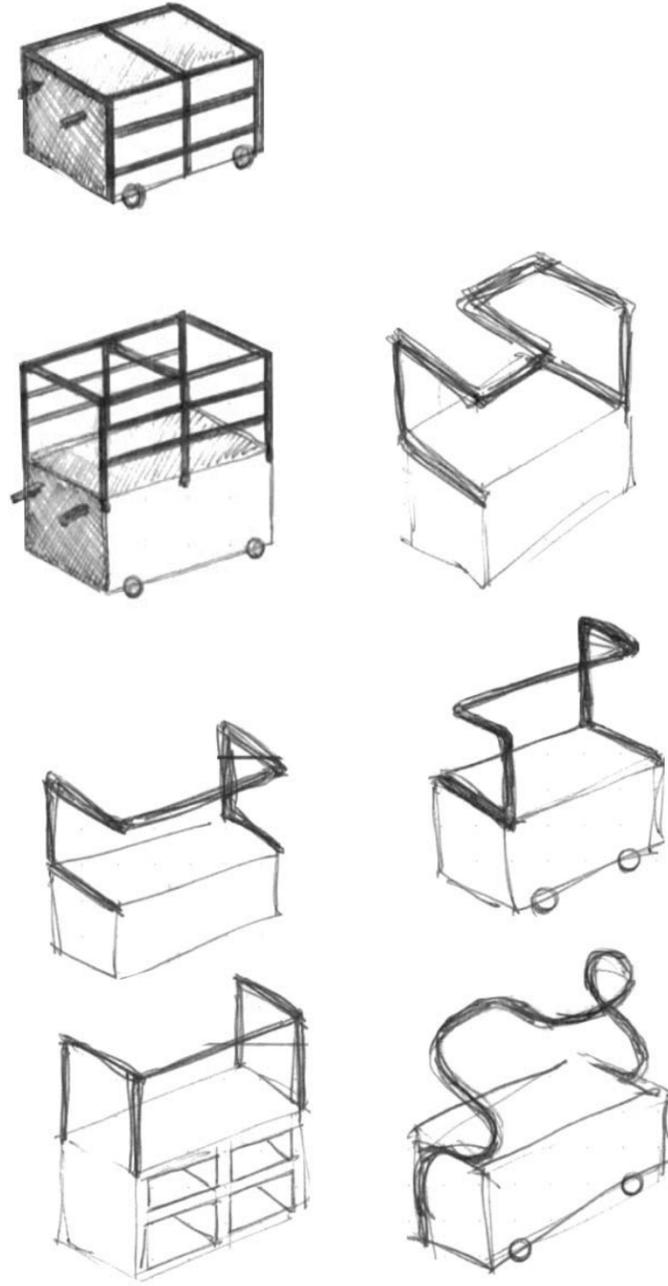
POP-OUT

SKETCHES

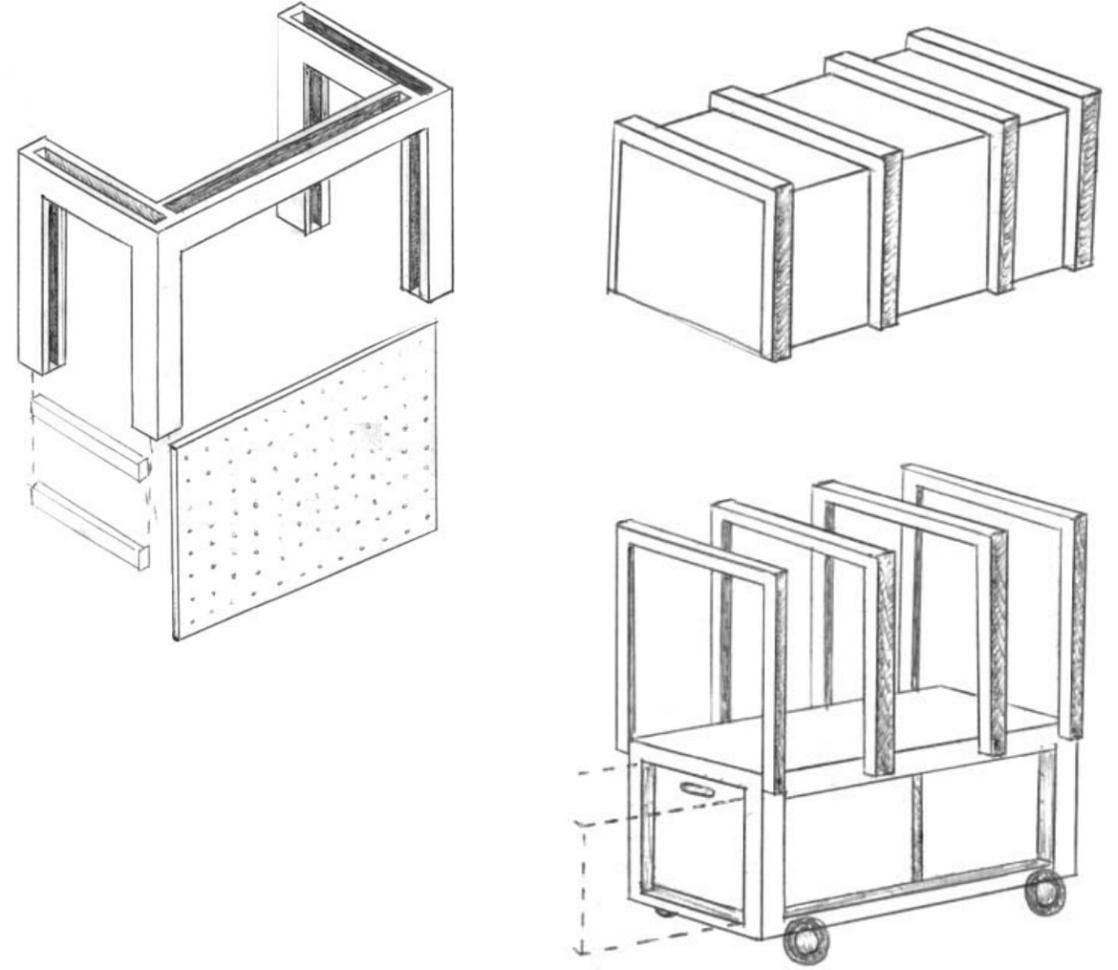
OPEN VS CLOSED



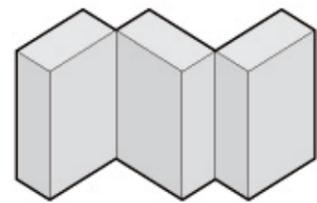
POSSIBLE CONFIGURATIONS



ARTICULATION



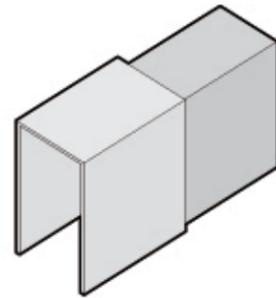
CONCEPTS SUMMARY



HINGE



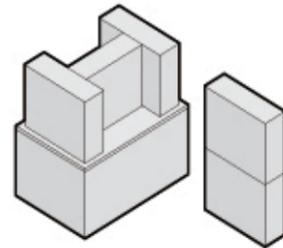
a flexible system in which modular display elements hinge together in order to easily expand and collapse



SLIDE



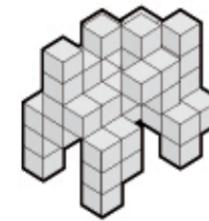
operable shelter slides out to create secondary space adjacent to pushcart while also protecting merchandise after operating hours



PACK



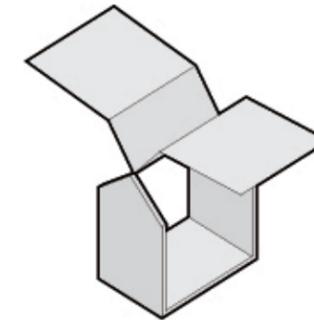
offers vendors customizability of merchandise displays and easy portability as an added bonus



STACK



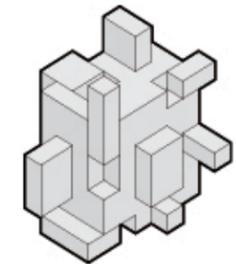
modular stacking display components give the vendor the power to easily change the look and functionality of their pushcarts



CANOPY



when closed, enclosure keeps merchandise secure from theft; when open, enclosure becomes a canopy sheltering merchandise and vendor



POP-OUT



pushcart incorporates pop-up display elements that can tuck away discreetly when not in use