A Modern Craftsman Revival

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MANIFESTO

Craft and design are directly related. An environment is not one entity but a collection of individual elements that are perfectly composed into a harmonious work. The designer’s material sensibility should be evident in each individual component, both macro and micro, or he will be alienated from the creative process. To compose the grand symphony he must never abandon intent and write with one calculated phrase after another. A craftsman’s hands should find the opportunity to manipulate all components and ensure harmony to ensure the elements of the space connect with no discord. When the designer and craftsman are one, creativity will be apparent.
<table>
<thead>
<tr>
<th>CONTENTS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>7</td>
</tr>
<tr>
<td>ARTICULATION</td>
<td>9</td>
</tr>
<tr>
<td>SITE HISTORY</td>
<td>10</td>
</tr>
<tr>
<td>SITE ANALYSIS</td>
<td>14</td>
</tr>
<tr>
<td>PROGRAM</td>
<td>16</td>
</tr>
<tr>
<td>PRECEDENTS</td>
<td>30</td>
</tr>
<tr>
<td>CONCEPT DEVELOPMENT</td>
<td>55</td>
</tr>
<tr>
<td>DESIGN PROCESS</td>
<td>69</td>
</tr>
<tr>
<td>MODULARITY</td>
<td>74</td>
</tr>
<tr>
<td>MATERIAL APPLICATIONS</td>
<td>88</td>
</tr>
<tr>
<td>AGING IN PLACE</td>
<td>92</td>
</tr>
</tbody>
</table>
ABSTRACT

The modern Craftsman movement is an attempt to break the contemporary mold, that is, a desire to introduce a younger generation to a level of interior detail that has been lost in contemporary construction and material usage. Components such as drywall tend to envelop all contemporary residential surfaces leaving little room for tectonic expression and opportunities for detailing. Further, a modern revival would re-establish the goals of the original movement and ensure the hand was present in the design of the home, as discussed by Winter & Vertikoff, “all versions were meant to counter the excesses of the Victorian period by returning to a preindustrial past when handicrafts displayed personal involvement in the products of a laborer’s work” (31). A craftsman by definition is very skilled in a particular trade (Merriam-Webster, 2014). Gustav Stickley, a key founder of The American Craftsman architectural movement, describes a Craftsman style home as being rooted in specific principles that define the home itself. He states, “These principles are simplicity, durability, fitness for the life that is to be lived in the house and harmony with its natural surroundings” (Stickley, 11). To accomplish this ideal the movement required craftsman from many disciplines, such as masonry and carpentry, to create hallmarks of this style in each home such as handcrafted stone facades and custom built-in cabinetry that were very functional while also very beautiful. While these elements were typically time consuming and expensive, reviving the concepts in modern application is possible. By reducing waste and manipulating materials quickly and accurately, certain forms of modern technology such as 3D printing, laser cutting, water jet cutting and CNC construction can provide a cost efficient and time saving process of material manipulation. The original Craftsman movement utilized bungalow kit homes to bring the cost and accessibility of the style to more homeowners, much like what technology could do for a modern Craftsman revival. Beginning in the early 1900s, the popularity of the bungalow grew immensely as a “helped fulfill many Americans’ wish for their own home” and “symbolized for many the best of the good life” (Winter & Vertikoff, 9). The affordability of the kits (some only 1900 trade two area and architecture manuals, in a local of A. S. Aladdin Homes manufactured), modern applications designed by Craftsman architects. While mass produced to make the homes accessible to any, the company took immense pride in the quality of the homes, offering the customer’s money back for any blemishes found in the finished product (23). Introducing concepts of Craftsman kit construction to the interior, as well as modern technology to lessen the cost of handcrafted details, opens the possibility to new methods of modular design in which interior units are configured around structural skeletons and central base points that provide supply lines to residential units. One example is Dutch design firm Minale-Maeda’s keystones, a 3D printed connector that holds together any necessary components, like furniture. These keystones can be 3D printed at home and saved time and the need to obtain anything but essential components (website). The design firm works to create an ongoing awareness of the possibilities of both mass production and skilled craftsmanship” (Euro Baleno, 2014). Another interesting example is Dutch design brand Fraaiheid’s Minimal Waste Table, which is created from one piece of laminated plywood with a CNC milling machine which makes for extremely minimal waste (Williamson, 2013). These examples of automation require a craftsman’s hand and mind to create the concept but introduce a modern approach to reducing waste, time and cost. Richmond’s Fan District provides an appropriate target demographic for the introduction of residential models that are efficient and economical means of residential development. Within the Fan, 40% of residents are ages 20-34, 37% of residents have a bachelor’s degree, and 51% of households are renting (US Census Community Survey, 2012). Sensible materials, local artistry and modern technology form a residential model that is suited for craft patrons and young adults such as the demographics living in the District. Evidence of the population’s support and appreciation for art and craft is found in the presence of craft fairs, festivals, studios and museums that have thrived in the area for years. Evidence of the demographics’ need for affordable housing lies in the significant number of renters who are unwilling to buy or unable to afford the style of housing they desire.
A MODERN CRAFTSMAN REVIVAL

This thesis investigates the parallels between contemporary residential life and that of the original Craftsman movement. It explores a modern craftsmen revival that preserves the characteristics of the original movement in technology such as 3-D printing, laser cutting, and water jet cutting along with eco-friendly materials to create affordable housing while preserving craft and technique.

TOPIC
This thesis investigates the parallels between contemporary residential life and that of the original Craftsman movement. It explores a modern craftsman revival that preserves the characteristics of the original movement in technology such as 3-D printing, laser cutting, and water jet cutting along with eco-friendly materials to create affordable housing while preserving craft and technique.

PERSONAL RELEVANCE
My undergraduate fine arts degree drives an appreciation for that which escapes commoditization. A recent craft history course deepened my interest further, and brought the idea for the exploration of craft preservation in residential application to light. While affordability and design seemed to be something I thought to always be at odds, I found through researching the American Craftsman movement that they can be one. Many of my friends who are starting their careers have shared concerns about finding well designed, affordable housing. I am interested in exploring how to bridge the gap between these two issues while integrating principles of the Craftsman style.

LOCAL RELEVANCE
Fox Elementary is located in Richmond’s historic Fan District, a fine art and crafts community. The Fan is home to a number of fine arts and crafts galleries, artist studios, and community facilities, such as the Visual Arts Center of Richmond, that form close relationships with the local populations, both professionally and academically. Virginia Commonwealth University, home to the top public arts school in the country according to U.S. News and World Report (2012), is only a short bike ride away. The building is also in close proximity to the Virginia Museum of Fine Art, the Virginia Center for Architecture, the Science Museum of Virginia, and the Virginia Historical Society. The building’s location within the educational and creative community allows dwellers to develop a close relationship with the fine art and crafts community.

GLOBAL RELEVANCE
The investigation of the parallels between the facets of contemporary society and the original Craftsman movement may articulate a new template for affordable residential housing. Sustainable materials, local artistry and modern technology could combine to create a residential model that is suited for craft patrons, particularly between their late 20s and 40s. Technology of the modern craftsman era can create a globally relevant, advantageous formula for affordable living, by reducing waste and manipulating materials both quickly and accurately; these forms of modern technology provide a cost efficient method of material use. Artistic detailing, events, and spaces that are often lost within modern residences due to cost, time or skill level required can be adapted and preserved with new technology.
Children leaving Fox Elementary in September 1955
© Richmond Times-Dispatch
William Fox Elementary was built in 1911 and was one of the many buildings in Richmond, Virginia designed by regional architect Charles M. Robinson. The building is located in the heart of the Fan District, an historic neighborhood that dates back to 1806 and is one of the oldest in the city. The Fan is known for its Victorians, Victorians, Victorians (V3), and one of the earliest examples of the Arts and Crafts movement in Richmond. The building has remained as a school and one of the only examples of the Arts and Crafts movement in the city for over 100 years (Robinson, 2014). The Fan area is young (40% of residents are 20-34), highly educated (37% with a bachelor’s degree or higher), and has a thriving rental market (51% of households) (U.S. Census, 2012). The district’s proximity to universities, dining, art and entertainment have also contributed to rising property values in recent years. Re-purposing buildings like Fox Elementary for residential purposes strikes a balance between what residents of the Fan value and what they need.

According to the Richmond Public Schools Survey Report, Fox Elementary showcases the rare instance of the influence of the arts and crafts movement among Richmond’s architecture (Robinson, 2014). The building attraction has multiple existing features that are conducive for the creation of residential units, providing a large amount of natural light, green space, high ceilings, and a large atrium with multiple existing features. The building boasts a large atrium and spacious common areas with the existing structure providing an excellent opportunity for residential units, including a lounge, media room, and reception area. The building’s location within the heart of the Fan district of Richmond, an area with a high concentration of young, educated residents, makes it an ideal location for re-purposing the building for residential use. The building selection process includes an evaluation of the building’s characteristics, including architectural features, energy efficiency, and proximity to amenities.
BUILDING SECTIONS

1 North Facing Section

2 East Facing Section

Basement

First Floor

Second Floor
INTERIOR VIEWS

Floor Plan Level 1

Floor Plan Level 2

SEE PAGE 20 FOR LOCATIONS WITHIN FLOOR PLANS © Photos taken by E. Michael Rader
INITIAL PROGRAM

**TYPE**

| Reception | Office | Conference Room | Media Room | Staff Office | Main Building Entrance | Main Center Stairwell | Large Main Atrium
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**DESCRIPTION**

**INITIAL MAIL STAFF CONDOS**

- Approximately 100 gross sq ft
- Approximately 150 gross sq ft
- Approximately 200 gross sq ft

**Condos**

- Large: (3+) (1,000-1,500 sq ft)
- Small: 1 Bedroom (500-800 sq ft)

**Total number of apartments**

- Approximately 12,816 gross sq ft

**AREA NEEDED**

- **CORE PROVISIONS**
  - **Primary Core Provisions**
    - Core provisions for access
    - Core provisions for privacy
    - Core provisions for safety
  - **Secondary Core Provisions**
    - Secondary provisions for access
    - Secondary provisions for privacy
    - Secondary provisions for safety
  - **Tertiary Core Provisions**
    - Tertiary provisions for access
    - Tertiary provisions for privacy
    - Tertiary provisions for safety

**USBS**

- **Primary Users**
  - **Building Residents**
  - **Property Manager**
  - **Maintenance**
  - **Deliverers**
  - **Staff**

- **Secondary Users**
  - **Assistant to Property Manager**
  - **Assistant to Maintenance**
  - **Administrative Work**
  - **Relatives, Friends and Visitors**
  - **Public for special functions**

- **Tertiary Users**
  - **Maintenance**
  - **Maintenance**
  - **Maintenance**

**ACCESSIBILITY**

- **Public**
  - Provides degree of security (in close proximity to entrance and staff office)
  - Provides degree of security (in close proximity to main building entrance)

- **Building Residents**
  - Provides degree of security (in close proximity to main building entrance)
  - Provides degree of security (in close proximity to entrance and staff office)

**PRIVACY / SECURITY**

- **Public**
  - Provides degree of security (in close proximity to entrance and staff office)
  - Provides degree of security (in close proximity to main building entrance)

- **Building Residents**
  - Provides degree of security (in close proximity to main building entrance)
  - Provides degree of security (in close proximity to entrance and staff office)

**OCUPANCY / OCCUPANT LOAD**

- **Public**
  - Provides degree of security (in close proximity to entrance and staff office)
  - Provides degree of security (in close proximity to main building entrance)

- **Building Residents**
  - Provides degree of security (in close proximity to main building entrance)
  - Provides degree of security (in close proximity to entrance and staff office)

**ADJACENCIES**

- **Public**
  - Provides degree of security (in close proximity to entrance and staff office)
  - Provides degree of security (in close proximity to main building entrance)

- **Building Residents**
  - Provides degree of security (in close proximity to main building entrance)
  - Provides degree of security (in close proximity to entrance and staff office)
PROGRAM / CODE ANALYSIS

BUILDING TYPE: TYPE III-B

REQUIRED FIRE SEPARATIONS:
- Stair Wells: 1 HR
- Elevator Shaft: 1 HR
- Elevator Equipment: 1 HR
- Exterior Walls: 2 HR
- Storage Rooms: 1 HR

OCCUPANCY TYPE: R-2
(Residential Occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature.)

OCCUPANT LOAD FOR RESIDENTIAL UNITS:
- 200 ft² gross (includes wall thickness)

GROSS SQUARE FOOTAGE:
- First Floor: 13,723 ft²
- Second Floor: 13,753 ft²
- TOTAL: 27,476 ft²

NET SQUARE FOOTAGE:
- 27,476 ft² × 65% (0.65)
- TOTAL: 17,866 ft²

ACCESSIBLE SPACES:
- Media Room
- Lounge
- Mail Room

LIVABLE SPACES:
- Residences / Condominiums

GRAPHIC PROGRAM

FLOOR PLAN LEVEL 1
SCALE: 1/32" = 1'
PROGRAM / ADJACENCY + CRITERIA MATRIX

SPECIAL EQUIPMENT (MARKED “Y”) AS FOLLOWS:

MAINTENANCE
- cleaning equipment, repair tools, replacement parts

RECEPTION
- phone, desktop computers (2), small storage space, desk / counter area, task chairs (2)

STAFF OFFICE
- task chairs (2), 6-8 chairs (formal / informal meetings), printer, fax machine, coffee maker, mini fridge / kitchenette, file storage, desk / counter area (2)

LOUNGE
- kitchen, Ridge Owen, microwave, cabinet storage, dishwasher, sink, toaster oven, dining area for casual, tables and chairs, general: plush, comfortable furniture, entertainment: large screen televisions, media room

MEDIA ROOM
- large format scanner, large format printer, plasma TV, desk / counter area, task chairs (4), digital projector, task chairs

CONDOMINIUMS
- kitchen: sink, fridge, stove, microwave, oven, dishwasher
- bath: sink(s), tub / shower
- general: washer / dryer

MEDIUM
- front entrance
- main atrium
- second floor common area
- central hallway, first floor
- central hallway, second floor
- main stairwell
- perimeter windows
- maintenance
- self storage
- west stairwell / elevator
- reception
- staff office
- mail room
- lounge
- media room
- double condominium unit
- triple condominium unit
- condominium family unit

HIGH
- 100 ft
- 150 g f
- 1,800 ft
- 3,000 ft
- 5,000 ft

LOW
- 500-800 ft
- 800 ft
- 1,000 ft

NO
- 1,500 ft

Y
- 2,000 ft

YES
- 2,500 ft

NEED FOR ADJACENCY
- 3

MARKED
- 5

SHOWN
MIDDLETON INN
ARCHITECT: CLARK and MENEFEE
LOCATION: CHARLESTON, SC

HIGHLIGHTS:
Great example of modular configuration. Each modular unit can be reflected about a common axis. Rooms are tied together using a central spine that provides a fire place to each reflected layout.

RELATIONSHIP:
Modular units have the potential to reflect the implementation and configuration of prefabrication craftsman interiors.

As depicted in the plan, small windows on either side of the spine allow for the penetration of natural light while providing viewpoints to either side of the structure.

The rooms also incorporate a wooden shutter system that can manipulate natural light.

Large windows used in Fox will be extremely important in dictating the layout of individual condominiums.

SOURCE:
Units are mirrored about central axis/spine that house chimney plumes and placement/powers for refrigerators.

Units are stacked 3 high against an earth barrier. 2 units are above ground level to right while the bottom units rest on the ground level of the central courtyard to the left.
DIAGOON HOUSES

ARCHITECT: HERMAN HERTZBERGER
LOCATION: DELFT, THE NETHERLANDS

HIGHLIGHTS:
Presented with “an incomplete framework” or “skeleton” that
“is a half-product which everyone can complete according to
his own needs.”
Easily customized for the individual client.
The design utilizes panelized systems and unit masonry that
can be configured in seemingly endless ways.
Small changes can be made to quickly and affordably change
the use of individual spaces within the residences.
Units can be configured based on the number of occupants
and can be reconfigured to accommodate a growing family.
Central cores serve as the spines of the houses and the center
for configurations.

RELATIONSHIP:
Ability to customize and reconfigure residences may prove to
be important within the modern craftsman era.
Residences that are easily customized, utilizing prefabrication
techniques, draw on the prefabricated nature of many
traditional craftsman homes.

SOURCES:
Row Houses: A Housing Typologie, Volume 2
By Günter Pfeifer, Günter Pfeifer (architect.), Per Brauneck

Multiple Configurations of Diagoon Houses
Hertzberger’s diagrams
Site Plan
Front facade of houses

© Images provided by A + C Arquitectura
Meeting of the modules at a central point

View of Interior (Modular divisions are visible)

Floor joists within the modular units

© Images provided by Skylab Architecture

HOMB MODULAR PREFAB (TAFT RESIDENCE)

ARCHITECTS: Skylab Architects

LOCATION: Portland, OR

AREA: 4,000 ft²

COMPLETION: 2013

HIGHLIGHTS:

Prefabricated modular units create one cohesive interior based on 100 ft² triangular modules that can be infinitely configured and expanded upon.

Units can span from an 800 ft² residence to 40,000 ft² mixed use structures (spanning from residential to commercial).

Units are arranged in connection geometrically.

Units are ready to assemble on site.

Triangular modules add additional element of interest within overall geometry of residence.

Sharp angles and different configurations among levels create unique building facades that break conventional flat planes.

RELATIONSHIP:

Concepts from Skylab's prefab units can be implicated in Fox Elementary to create an interior method of joining residential units.

SOURCE:

skylabarchitects.com

The Oregonian
Gensler Architects’ Bangkok office draws on inspiration from local craftsmanship and utilizes local materials. Traditional Thai screens were constructed using a strong geometric pattern to help divide the space without impeding the penetration of natural light and completely closing off sub-spaces. According to Gensler, most all of the materials were locally sourced. This includes the locally sourced silk used for the screens and fabrics from a local silk marker. The local culture is reflected in the space.

Relationship:
This is a good case study involving the architectural reflection of local culture, craftsmanship, and materials, all of which are extremely important to my thesis. Each decorative element also serves a function and has a practical quality. The space is responsible in its use of local resources. This may serve as a model for the practice of integrating local craft culture into an interior dwelling. The use of screens to divide spaces is something that I am extremely interested in as well.

Source:
Contract Design Magazine.
MATERIAL + TECHNOLOGY PRECEDENTS
MINIMAL WASTE TABLE

DESIGNER: FRAAIHEID
LOCATION: AMSTERDAM, THE NETHERLANDS

HIGHLIGHTS: A good example of how CNC technology can help tremendously with reducing woodworking related waste. Here, CNC has provided perfect joinery among furniture pieces with minimal waste of materials.

The table has been cut using a CNC machine from one piece of laminated plywood.


© Images provided by Fraaheid

3D PRINTED KEYSTONES

DESIGNER: MINALE MAEDA
LOCATION: ROTTERDAM, THE NETHERLANDS

HIGHLIGHTS: 3D printed connectors such as these could play a roll in constructing furniture for the modern craftsman revival. These plastic connectors could drive down the price of various interior components and hardware.

Connectors provide a cheap, quick and efficient means of joinery that can be printed on any 3D printer when construction specs are purchased by the supplier.


© Images provided by Minale-Maeda
ARCHITECTS: ATELIER PETER EBNER AND FRIENDS
LOCATION: OBEROSTERREICH, AUSTRIA
AREA: 800 ft²
HIGHLIGHTS: The concept is based on the conservation of the available space using one central spine-like mass to delineate space within the confines of a small residential unit. Components of the central spine can be shifted, pivoted, and rotated to serve multiple rooms and spaces within the apartment.


ARCHITECTS: SMITH-MILLER & HAWKINSON
LOCATION: NEW YORK, NY
AREA: 1,200 ft²
COMPLETION: 1989
HIGHLIGHTS: This project exhibits the concept of using a central spine-like mass to delineate space within the confines of a small residential unit. Components of the central mass can be shifted, pivoted, and rotated to serve multiple rooms and spaces within the apartment.

CHELSEA LOFT

ARCHITECTS: SCOTT MARBLE & KAREN FAIRBANKS
LOCATION: NEW YORK, NY
COMPLETION: 1994

HIGHLIGHTS:
The pivoting door component that is used in the space, exemplifies a successful method of dividing space while allowing the user to adjust the partitions’ transparency.

The door panels are constructed using a combination of natural and synthetic materials, each serving a different structural and functional purpose while combining to create one uniform aesthetic.

Pivoting doors provide an approach to delineating space within a small footprint.

The size and scale of these pivoting doors can be changed to adjust for privacy concerns, need for natural light, and acoustical needs.

SOURCE:
Column doors open to expose interior flesh

Column on place of existing axis within space

Column doors closed along hallway

© Images provided by Catherine Bogert

PRIVATE RESIDENCE
WITH 13 CABINETS

ARCHITECTS: WESLEY WEI ARCHITECTS

LOCATION: PHILADELPHIA, PA

COMPLETION: 1995

HIGHLIGHTS:
The project utilizes a number of introduced storage columns to the apartment.

Storage units surround existing columns and service lines and also create new faux columns to enhance the existing structural grid and provide extra storage space.

The inner tectonics or flesh of the columns provide a great aesthetic all their own. Painted ash veneer clad the majority of columns while the interiors are composed of wood, aluminum, bronze, acid-etched zinc plate, and glass mirrors.

Storage columns surrounding existing structure and mechanical chases leave room for future adjustments and additions.

“The columns, also functioning as cabinets, visually support the weight of the ceiling while engaging the imagination through the intimate spaces of their cavities” (Oscar, 1997).

SOURCE:

© Images provided by Catherine Bogert
The concept of the apartment explores two main architectural systems: the closed system considers the existing space that is traditionally defined by secure walls which dictate volumes and the abstract system that is superimposed on the closed system, defining space without the use of columns, windows, and conventional walls (Oscar 248).

The abstract system is composed of large L-shaped elements that articulate the vertices that create inferred corners and subconsciously divide the interior.

The L-shaped elements are constructed using a plywood substructure with a layer of expanded metal nailed to the plywood. Metal edging is embedded within seven outer layers of hand sanded, dyed plaster finish (248).

Elements such as these can be used to divide space within small residential condominiums without the use of generic, drywall partitions.

SOURCE:
CONCEPT COLLAGES
INVESTIGATING A CENTRAL SPINE: BUILDING OFF OF A FOCAL POINT OR HUB
CONCEPT STUDIES
INVESTIGATING A CENTRAL SPINE:
BUILDING OFF OF A FOCAL POINT OR HUB
CONCEPT MODELS

INVESTIGATING A CENTRAL SPINE: BUILDING OFF OF A FOCAL POINT OR HUB
CONCEPT MODELS

A standard spine is utilized in each model. The geometric volumes acting on these spines may vary accordingly.
DESIGN PROCESS
Natural light analysis suggests that chase walls and supply lines are best positioned between the existing series of glass facades.

Individual residential units divided into triangular modules at center points.

Units divided into large triangular modules opening into hallways.

Residential wings depicted in green.
Modules are bought and sold among residents, contributing to expansion and contraction of individual units.

Given the rectilinear nature of the structure, existing partition walls are used to create central spines.

Spines, or central chases (depicted in red), are introduced upon which bathrooms (depicted in green) and kitchen areas are reflected.

Main axes depicted in blue, sub axes depicted in green.
Introducing concepts of Craftsman kit construction to the interior, as well as modern technology to lessen the cost of handcrafted details, opens the possibility to new methods of modular design in which interior units are configured around structural skeletons and central base points that provide supply lines to residential units. Standardized modules are introduced to the residential units to create a reflection about the geometry of the existing classrooms.

Central spines are implemented to allow kitchen and bathroom areas to share a common 8” chase wall while residential units are individually divided. Once individual units are combined as resident’s needs change, spines, along with movable partition walls are utilized to create entirely new environments.

MODULARITY USING A SYSTEM OF SPINES

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Movable Panels attach from a floor grid to a matching coffered ceiling grid that is larger in width and depth.
Skeletal panels are constructed of 1" tubular aluminum and are light enough for one individual to carry and two individuals to set in place vertically.

Panels attach to a floor grid consisting of common 3/4" x 1 1/2" lumber and to a coffered ceiling that brings the panel’s total attachment height to approximately 12’ from grid to coffered ceiling.
STAGGERED PANELS CREATE FINGER JOINTS

Panels are shifted on the aluminum frame according to the thickness of cladding that is used. This assures a flush corner when partitions are attached perpendicularly.

CLADDING POSSIBILITIES
The spine, or central chase allows for more drastic movements and customization within the living unit. The distance that the spine protrudes from the existing wall maintains increments of 3’ to accommodate standard kitchen appliances. From there, storage solutions are fully mobile and can be rearranged as desired. Standard datum lines are established on the kitchen facing wall to assure appropriate counter and clearance heights. Storage above is interchangeable using an attachable grid along the spine’s face. This method of attachment is articulated on the face of the spines to enhance the idea of tectonic expression.

Central Spines are divided horizontally into 3’ increments (9 total) to allow for custom configuration of appliances below. The spines may be expanded to allow kitchens to grow. The interchangeable parts acting on the spines may be raised and lowered to accommodate the resident’s needs.
**Project: Assemble Studio**  
Architects: Assemble  
Location: Northcote, VIC, Australia  
The main feature of the space is the ceiling which is inspired by triangular origami folds. The geometric pattern can be repeated infinitely while allowing for adequate sound absorption.

**Work:**  
Concrete Installation at Malmö Konsthall gallery  
Designer: Mike Nelson  
This project focuses on large scale, architectural installations such as this geometrical work made of concrete. These precast designs are monumental in presence and form.

**Product:**  
Adjustable Wall Mounted Storage System  
Designer: Kerf Design - Seattle Washington  
The system uses only plywood and plastic laminate to create a storage system that can be infinitely configured.

**Project: Prefab Cottage**  
Architect: Michael Fitzhugh  
Described as a “Modular, Modern Prefab Structure” this home uses unique concealed storage, predominantly under the flooring.

**Product:**  
Geometric Wall Covering System  
Architecture Firm: Correia / Ragazzi  
Architect: Azulejo Czech  
These geometric tiles can be endlessly configured to create unique surface textures, patterns and movement.

**Project: The Versatile Collection - Axis tiles**  
Designer: Yigit Özer  
These tiles create unique senses of depth and interesting interaction with light. Individual pieces can be configured in a number of directions for custom configurations.

**Product:**  
Geometric Wall Pattern  
Designer: John Houshmand  
Wall tiles are constructed from wood. These geometric tiles have the ability to be back-lit, illuminating the interior.

**Project: Book Case Screen Wall**  
Architect: Iwamoto Scott  
The architecture book case acts as a partition that can also direct light.

**Product:**  
Macedonia Space Divider  
Manufacturer: Freedom of Design  
Designer: Janne Kyttänen  
A modular space dividing system composed of glass filled propylene.

**Project: Sipopo Congress Center**  
Location: Malabo, Republic of Equatorial Guinea  
Architect: Tabanlıoğlu Architects  
Adjacent planes creating geometric rhythm have the opportunity to shift slightly in order to add an element of light within the interior.

**Product:**  
Modular Wall Covering System  
Manufacturer: Granorte  
This concept could easily be adapted to use on floors as well. The visual presence of depth within the floors can add another layer of geometry to the space.

**Product:**  
RoboFold—“Sartorial Tectonics” Facade System  
Designer: Andrew Saunders  
Machine fabricated modular facade system that can be configured in a number of shapes, sizes and densities.
CUSTOMIZATION THROUGH INTERCHANGEABLE SKINS

3/4” Interchangeable floor panels are comprised of a 1/4” synthetic rubber base, 1/2” foam spacer, and a 1/4” top layer that can take on a number of finishes and materials.
EXPANSION AND CONTRACTION OF RESIDENTIAL UNITS

A NEW APPROACH TO AGING IN PLACE DESIGN

In addition to reviving Craftsman-era principles, this design also allows for unique flexibility in providing aging-in-place design solutions. Through the use of spines and movable partitions, residents have the opportunity to expand and contract their living spaces while also having customizable material finishes.

UNIT A
floor plan: first and second floors
SOURCES CITED


