THE THIRD PLACE: A MIXED-USE BUILDING FOR OFFICE WORKERS IN THE CENTRAL BUSINESS DISTRICT

Mingming Zhao

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The Third Place
A mixed-use building for office workers in the central business district
A thesis submitted in partial fulfillment of the requirements for the degree of Master of Fine Arts at Virginia Commonwealth University.

Mingming Zhao

B.A. English Studies with International Business
The University of Nottingham Ningbo China, 2015
M.F.A. Interior Environments
Virginia Commonwealth University, 2017

To the teachers who inspired and guided me:
Cristiana Cesaroni
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Jillian Chapin
Emily Smith
Hillary Fayle

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Heather Overby
Lucy Dabney

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Quang Yan
Yang Liu
Xilin Chen
Xiran Yang
Shiyang Yuan

I am so blessed to have spent the past two years with you. Truly grateful. Thank you.
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I believe that the way people live can be directed a little by architecture.” — Tadao Ando...

...I believe... less, but better.
Work-related stress is an issue of growing concern around the world. The relationship between work stress and individuals’ psychological and physical health is well acknowledged. In the survey of “stress in the workplace” conducted by American Psychological Association in 2012, two in five (41%) of employed adults report that they typically feel tense or stressed out during workday, up from 36% in 2011, while less than six in ten (58%) report that they have the resources to manage work stress.

Historically, Central Business Districts are a focal point of cities, and are occupied by a large group of office buildings and a number of retail spaces. According to Elsbach and Bechky (2007), office workers regularly leave their offices in search of more relaxed, creative environments. However, there is limited “third space” to serve office workers’ daily life in the central business district.

Most of the design research about wellness of office workers have done focus on the spaces in which people work during office hours. Consideration for office workers in the CBD after office hours is relatively rare. What else is needed to support the life of the office workers, and what kind of spaces they are looking for after hours.

Several primary research methods were adopted. First, a survey of research on how the design of traditionally planned CBD fails to support wellness of office workers was made. Then, the thesis examined what is needed to support the wellness of office workers in the CBD of Richmond. Qualitative methodologies, including interviews and video records of the daily CBD living habits were made. In addition, case studies of recently done CBDs that tackle this question.

There are three aims in this research. First, it is the design of a series of mixed-use spaces in a working building in the central business district of Richmond to support the wellness of the office workers in the CBD of Richmond, and try to redefine the CBD in a new way.

The preliminary results for this research indicate the importance of the research for office workers. The mixed-use building can significantly affect the psychological effect of the mixed-use building in reducing work stress, improving office workers’ health and enhancing wellness of office workers.
The original idea for this project is to design a mixed-use building for the office workers after office hours. In the process of researching, keep finding existing projects all over the world with the similar starting point as the original project. For example, the Shibaura House in Tokyo, which is my spirit for mixed-use spaces. Another referential project is the Hive On 16th in Denver, it has quite similar operation mode for public spaces and proposed to use for my project.

For the thesis project, it aims to change the single form of the central business district in Richmond, and improve the wellness of office workers. Therefore, the keywords for my research were mixed-use building, office workers, wellness, pressure reducing, co-working spaces, and sustainability.
The Shibaura House represents a new spirit for mixed-use spaces. It is a multistory building containing flexible workshop spaces which provide diverse areas within the various levels. It is capable of supporting a wide range of functions and activities, and individuals or groups may hold meetings, conferences, events, lectures and exhibitions within the unique interior and terraced plan arrangements. The way of mingling different programs but also making them be relatively independent is what I am looking for in the thesis project.
“What I really like, is the mix of people using the space during their lunch hours. Over here businessmen are having meetings, over there mothers converse, and in another area you find employees like us. It is wonderful to see all these things happening in one space, and it is really great that we have managed to create this in the middle of the city.”

The first floor is equipped with a kitchen and dining and eating is possible. It is a great for a party. Also it is suitable for talks and workshops. The second floor is a lounge space, when using the 1st floor for a party. It is also a fitting space for a small exhibition as there is natural light from the southern terrace. The third floor is gently divided into two spaces, by a glass window and the terrace, which is suitable for presentations and seminars.

Perspective drawing shows interconnection between floors and programs.

1st Floor - Living: Party & Dining
2nd Floor - Lounge: Small Exhibition
3rd Floor - Lounge: Small Exhibition
4th Floor - Lounge: Presentations & Seminars
5th Floor - Bird Room: Relax & Activities
The A21 house is a stylish traditional Asian studio with multilevel construct which uses natural sunlight, open spaces and skylights to create a relationship between nature and the building itself. The overall organic ambiance is amplified with simple white textured walls and hints of greenery growing indoors.

This project inspiring the way of bringing green from outside to inside, and its lack of fussy details, reuse of existing structure and surfaces, abundance of natural light, openness of spaces, integration with trees and plants, an overall relaxed style and effortless beauty in the simplicity.
I simply want our studio like a wild cage which is bathed in sunlight, inundated by rainwater, fully surrounded by non-frontier space. And we are like wild beasts in cage, stay temporary but thirst for living. The inspiration A21 house project give me is the concept of green and nature.
Oldenburg calls one's "first place" the home and those that one lives with. The "second place" is the workplace — where people may actually spend most of their time. Third places, then, are "islands" of community life and facilitate and foster broader, more creative interactions.10

Oldenburg suggests the following hallmarks of a true "third place":

- Free or inexpensive
- Food and drink, while not essential, are important
- Highly accessible (proximate for many walking distance)
- Involve regulars — those who habitually congregate there—Welcoming and comfortable
- New friends and old should be found there

After researching on workplace stress and health, wellness of office workers and the Central Business District environment, this proposed mixed-use building program will include a cafe, fitness center, work lounge, workshop rooms and a roof terrace. Most of the program supports entertainment and support spaces which help to refresh workers before and after office hours. However, the concept of the work lounge (public lounge + private offices) in this building is resmbles a living office.

Living Office is a high-performing workplace that delivers an elevated experience of work for people, it provides an updated understanding of people and their work, founded on elements that are naturally human — how we experience the world and what motivates us. Informed by this understanding, Living Office offers considerations for the arrangement of surroundings, furnishings, and tools to meet the needs of people and deliver an elevated experience of work.11 Food choices, high-quality lighting, water and air serve to create healthier, energized surroundings.

From privacy-as-a-luxury to privacy-on-demand: As work activities have become more interactive and communal, the need for privacy hasn't gone away. Private workstations or offices are no longer the way to provide this privacy. Many organizations are taking their exclusive- yet-vacant private offices and transforming them into smaller, better-equipped Haven Settings, where anyone can work.

From standard conference rooms to a variety of group settings: People doing a variety of activities throughout the day. A majority of these activities are social and collaborative in nature, like dividing and conquering work on a project, having a conversation, or co-creating an idea for a new product. Hence, it is necessary to create workplaces with a variety of settings, each specifically designed to support different people and their work.

From oversized conference rooms to precision-fit meeting spaces: Large, traditional conference rooms (think long rectangular tables with seats lining the sides) are still prevalent in many offices today, but most are underutilized: people only use two-to-four seats in spaces designed to accommodate six-to-twelve.

From required circulation to desired connection: In the past, circulation space was viewed as a necessary evil: of ces had to have it so people could comfortably move from Point A to Point B. But circulation space can be far more than a conduit for people. When purposefully planned—with people's needs, experiences, and activities in mind— it can become active connective space.

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This building was built in 1975, and is connected to the high-rise Bank of America building which was built in 1973, located in heart of downtown Richmond's financial district. It has excellent views of the Capitol and James River. The total square feet for the connector section is 28,000. The property class is Class A or B office building. The construction material is concrete, masonry, metal, and glass.

The building is bounded on the north side by East Main Street, on the east by South 12th Street, and on the south side by East Cary Street. It has a 25-story office building, a 3-story office building, a nine-story parking deck, and a pedestrian plaza.

The building was rezoned from B-6 Mixed Use Business District to B-4 Downtown Central Business District in 1999. Today, east of the building across 12th Street is zoned B-5 Central Business District. The property to north and west are occupied by high-rise office buildings.
The building is located in the Central Business District in downtown Richmond. The area of offices in downtown has transformed from a public functional district to the Central Business District of Richmond today. The CBD acts as a district connecting government, MCV campus, and James River, and also a boundary separating the downtown from the residential districts (R-6) and light industrial districts (M-1). A number of landmark high-rise buildings are located in the CBD such as the building of Bank of America, Capitol, as a landmark, play an important role to note this area.

The CBD in Richmond has grown since 1998. Today, the west boundary of the district extends to North Harrison Street as shown in the following image. And the east boundary is Interstate 95. The north boundary is E Leigh Street, and the south is the James River.

According to the labor statistics from Richmond Government Information System in 2015, the total labor population is 1,218,864.
sun study
**initial programming**

<table>
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<tr>
<th>1</th>
<th>quantities</th>
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<th>2</th>
<th>3</th>
<th>4</th>
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<td>workshop rooms</td>
<td>fitness center</td>
<td>roof terrace</td>
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<td>40</td>
<td>150</td>
<td>30</td>
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<tr>
<td>4</td>
<td>years</td>
<td>office members</td>
<td>office members</td>
<td>organizer + invite</td>
<td>office members</td>
<td>office members + free family</td>
</tr>
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</table>
| 5 | space summary | a place to eat, talk, and have a break. The work lounges provide a place to work after office hours. These are for organizing activities, or for the work area to be used by the public as a conferencing room.
| 6 | important adjacencies | | | | | |
| 7 | accessibility | yes-ADA | yes-ADA | yes-ADA | yes-ADA | yes-ADA |
| 8 | plumbing equipment | water-resistant, dirt-resistant furniture | various types of seating | movable furniture | water-resistant, dirt-resistant furniture | water-resistant, dirt-resistant furniture |
| 9 | specialized FF&E | wood tables and seats, stainless kitchen equipment | | | | |
| 10 | acoustic privacy | medium | high | medium | low |
| 11 | visual privacy | low | medium | medium | high |
| 12 | security | low | medium | high | low |
| 13 | daylight requirements | high | medium | high | low |
| 14 | others | yes | yes | yes | yes | yes |
### Code Analysis

#### Minimum Exit Requirements
- **Floor 1:** Min. 2 exits
- **Floor 2:** Min. 2 exits
- **Floor 3:** Min. 2 exits
- **Roof:** Min. 2 exits

(Based on 60% efficiency ratio, assembly 15 net occupant load factor)

#### Floor Plan

<table>
<thead>
<tr>
<th>Location</th>
<th>Floor</th>
<th>CL</th>
<th>Exit</th>
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</thead>
<tbody>
<tr>
<td>A-2 Coffee Bar</td>
<td></td>
<td>40</td>
<td>1</td>
</tr>
<tr>
<td>A-3 Study Lounge</td>
<td></td>
<td>40</td>
<td>1</td>
</tr>
<tr>
<td>A-4 Fitness Center</td>
<td></td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>A-5 Roof Mixed Use Area</td>
<td></td>
<td>40</td>
<td>1</td>
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</table>

#### Bathroom Locations

- **Women:** M       F
- **Men:** M       F

<table>
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<th>Location</th>
<th>Floor</th>
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<tbody>
<tr>
<td>Women's Restrooms</td>
<td></td>
<td>40</td>
<td>1</td>
</tr>
<tr>
<td>Men's Restrooms</td>
<td></td>
<td>40</td>
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</tbody>
</table>

### Assembly Details

- **A-2 Coffee Bar:** OL = 40
- **A-3 Study Lounge:** OL = 40
- **A-4 Fitness Center:** OL = 30
- **A-5 Roof Mixed Use Area:** OL = 40

#### Exit Summary

<table>
<thead>
<tr>
<th>Location</th>
<th>Exit Count</th>
</tr>
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<tbody>
<tr>
<td>A-2 Coffee Bar</td>
<td>1</td>
</tr>
<tr>
<td>A-3 Study Lounge</td>
<td>1</td>
</tr>
<tr>
<td>A-4 Fitness Center</td>
<td>1</td>
</tr>
<tr>
<td>A-5 Roof Mixed Use Area</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Minimum Exit Counts

- **A-2 Coffee Bar:** 1 exit
- **A-3 Study Lounge:** 1 exit
- **A-4 Fitness Center:** 2 exits
- **A-5 Roof Mixed Use Area:** 1 exit
<table>
<thead>
<tr>
<th>Type of construction</th>
<th>First floor</th>
<th>Second floor</th>
<th>Third floor</th>
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<tr>
<td>Gross area</td>
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<td>TYPE I</td>
<td>TYPE I</td>
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<tr>
<td>Required number of exits per floor</td>
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<td>3931</td>
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<tr>
<td>Occupancy classification</td>
<td>Assembly</td>
<td>Assembly</td>
<td>Assembly</td>
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<tr>
<td>Occupant load by classification</td>
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<td>15 net</td>
<td>15 net</td>
</tr>
<tr>
<td>Overall occupant load</td>
<td>153</td>
<td>153</td>
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<tr>
<td>Male/female</td>
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<tr>
<td>Number of each gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of water closets per gender</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Number of water fountains</td>
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<td>1</td>
</tr>
<tr>
<td>Number of accessible restroom fixtures per gender</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

[Visual diagram of building floor plans with color-coding for visual, acoustical, and physical privacy]
design process

conceptual
SECOND LEVEL PLAN

scale: 3/32" = 1' - 0"

Second Floor

maker space
Sections

LONGITUDINAL SECTION A - A'

scale: $\frac{1}{16}$" = 1 foot

CROSS SECTION B - B'

scale: $\frac{1}{16}$" = 1 foot

CROSS SECTION C - C'

scale: $\frac{1}{16}$" = 1 foot
Fitness Center
Work Lounge + Interior Courtyard
Opening

Thanks to the hard work of all my classmates, my professor Roberto Ventura to make this be real.

It was a memorable exhibition night.
The Third Place: A Mixed-use building for office workers in the central business district

STRESS AND HEALTH
Wellness of office workers in the CBD of Richmond, and try to define the CBD in a new way. The thesis examined what is needed to support the workers in the CBD after office hours is relatively rare. What else is needed to consider for office workers during office hours. Consideration for office workers was made. Then, the thesis examined what is needed to support the office workers after hours.

STRESS AND HEALTH
Living in the CBD of Richmond is stressful for office workers. Employment problems and family problems are stressful for office workers. Problems at work are more strongly associated with health complaints. Three-fourths of employees believe the worker has more stress after finishing a project. 25% of employees view their jobs as the number one stressor. One-fourth of employees view their jobs as the number one stressor. Lack of opportunity for growth or advancement is the number one stressor. The number one stressor is lack of opportunity for growth or advancement.

MOOD OF OFFICE WORKERS
Most of the design research about wellness of office workers have done focus on the spaces in which people work during office hours. Consideration for office workers during office hours. Consideration for office workers was made. Then, the thesis examined what is needed to support the office workers after hours.

WELLNESS OF OFFICE WORKERS
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Experimental study of stress and health in the workplace was conducted by American Psychological Association in 2012. Two in five (41%) employed adults report that they typically feel stressed during the workday, with more women (46%) than men (35%) experiencing stress. In the survey of “stress in the workplace” conducted by American Psychological Association in 2012, two in five (41%) employed adults report that they typically feel stressed during the workday. Two in five (41%) employed adults report that they typically feel stressed during the workday.

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References:
8. Images: design-why-wellness-minded-spaces-are-on-the-rise/434764/


8. Confidential and proprietary research with Fortune 500 companies conducted by Herman Miller, 2014.
