Pack & Pick in my Home

Research book 001
**BASIC**

**RESIDENCE:** 3

**AREA:** 88m²

**HEADROOM:** 2.6m

**STATUS**

Residence 1: CaiC, F, Student, 24
Residence 2: Chun Hoi, M, Student, 27
Residence 3: Li Ke, M, Student, 27

---

**Percentage of Use in 24 hours**

- **Kitchen:** 2.5/24 (10.5%)
- **Dinnsing Space:** 3.0/24 (12.5%)
- **Bathroom:** 3.0/24 (12.5%)
- **Living Space:** 6.0/24 (25%)
- **Sleeping Space 1:** 9.5/24 (39.5%)
- **Sleeping Space 2:** 7.5/24 (31%)
- **Sleeping Space 3:** 8.0/24 (33.3%)
- **Studying Space 1:** 2.5/24 (10.5%)
- **Studying Space 2:** 6.5/24 (27%)
- **Studying Space 3:** 2.0/24 (8.3%)
6.00 - 9.30

10.00 - 13.30
22.00 - 01.30

02.00 - 05.30
Inefficient Use in 24 hours

89%

[average vacancy volume of one day out of 231m³]
What if I pack my space at home?

**Basic**
- **Area:** 26m²
- **Headroom:** 2.6m
- **Time at home:** 18 hours

**Status**
- **Bed corner:** 6.5 hours
- **Study corner:** 2.5 hours
- **Living room:** 2.5 hours
- **Dinning room:** 3.5 hours
- **Kitchen:** 2 hours
- **Bathroom:** 1 hour
Space and Activities at Home

The research is questioning the inefficient use of space over 24 hours, and imagining an increase of living quality of users by packing and picking ‘Activities Space’ over time. The idea brings a change to the relationship between space configuration, boundary to the user’s demand of space, which is highly related on the 24 hours activities change and their demand of space change. With the personal experiment of packing my home, activities timeline is used to study how much we can pack base on our ‘Activities Space’ of one day in dwelling space, as result, by packing all furniture we can achieve the reduce of volume use compare to the normal unused moment of space.

---

1. Activities Space, instead of functional space/program, this project define space as spacial demand for specify activity.
Pack Volume

Bed Corner (6hr45mins)

Normal Mode
13.3m³

2450.0mm
2100.0mm
2600.0mm

Pack Mode
1.0m³

2150.0mm
950.0mm
500.0mm

Items
- 1x Quilt
- 1x Pillow

Furniture
- 1x Double Bed

Pack vs Normal: 7.5%
Pack Volume

*Studying Corner (2hr45mins)*

**Normal Mode**

*7.2m³*

**Pack Mode**

*2.0m³*

**Items**
- 1x Laptop
- 1x Table Lamp
- Books

**Furniture**
- 1x Table
- 1x Office Chair
- 1x Book Shelf

Pack vs Normal: **28%**
Pack Volume

Dinning Room (3hr15mins)

Normal Mode

12.3m³

Pack Mode

0.8m³

Pack vs Normal: 6.5%

Furniture
- 1x Table
- 5x Chairs

Items
- Dishes
- Food
Pack Volume
Living Room (2hr20mins)

Normal Mode
16.4m³

Pack Mode
1.3m³

Pack vs Normal: 8%

Items
-1x Pillow
-1x Painting

Furniture
-1x Coach
-2x Coffee Tables
Pack Volume

Kitchen (2hr00mins)

Normal Mode
12.7m³

Pack Mode
5.5m³

Furniture
- 1x Fridge
- 4x Cabinets
- 1x Kitchen Top

Pack vs Normal: 43%
Pack Volume
Bathroom (55mins)

Normal Mode
9.3m³

Pack Mode
3.2m³

Pack vs Normal: 34%
Activities Pack

Can I pack all my furniture?

<table>
<thead>
<tr>
<th>SLEEPING</th>
<th>LIVING</th>
<th>DINNING</th>
<th>STUDYING</th>
<th>COOKING</th>
<th>TOILET</th>
</tr>
</thead>
</table>

Store vs Display:

- SLEEPING: 7.5%
- LIVING: 8%
- DINNING: 6.5%
- STUDYING: 28%
- COOKING: 43%
- TOILET: 34%
Population: 1

Function:
1x Sleeping Corner
1x Study Corner
1x Living Room
1x Dinning Room
1x Kitchen
1x Bathroom

Furniture:
1x Double Bed
2x Table
6x Chair
1x Coach
2x Coffee Table
1x Book Shelf
1x Kitchen Top
4x Cabinets
1x Mirror Cabinet
1x Fridge
1x Toilet
1x Sink Cabinet
1x Shower

Items:
1x Laptop
3x Pillow
1x Quilt
1x Table lamp

How much I need for pack?

20% [Total pack volume compare to normal mode volume]
How much I need to pick space according to my activities?
Pack and Pick
Volume Use in 24 hours

39\% (highest 67\%)

[average used volume of one day out of 67.7m³]

Space in Use overlapping image of 24 hours
[5\% per image out of 48]
Pick and Pack in the Block

Research book 002
The Berlin Block

**BASIC**

**RESIDENCE:** 246

**HOUSEHOLD:** 110

1p x40, 2p x34, 3p x20, 4p x12, 5p x6

**STATUS**

**Pre-School:** 14

**Student:** 43

**Working:** 102

**Housewife:** 35

**Retired/Unemploy:** 57
What is the potential of one dwelling floor to pack?

**BASIC**
- RESIDENCE: 32
- HOUSEHOLD: 14
  - 1p x4, 2p x4, 3p x4, 4p x2

**STATUS**
- Pre-School: 2
- Student: 6
- Working: 11
- Housewife: 5
- Retired/Unemployed: 8
22.00 - 01.30
Volume: 986.2m³
20.5%
- Sleeping 1.9%
- Studying 2.5%
- Dining 0.0%
- Living 6.5%
- Kitchen 1.4%
- Change 0.8%
- Bath 4.4%
- Pack 3.0%

22.30
Volume: 991.6m³
20.7%
- Sleeping 4.8%
- Studying 2.5%
- Dining 0.0%
- Living 6.5%
- Kitchen 1.4%
- Change 0.8%
- Bath 4.4%
- Pack 3.1%

23.00
Volume: 913.8m³
19.0%
- Sleeping 6.6%
- Studying 2.5%
- Dining 0.0%
- Living 6.5%
- Kitchen 1.4%
- Change 0.8%
- Bath 4.4%
- Pack 3.3%

23.30
Volume: 1001.4m³
20.9%
- Sleeping 8.4%
- Studying 2.5%
- Dining 0.0%
- Living 6.5%
- Kitchen 1.4%
- Change 0.8%
- Bath 4.4%
- Pack 3.3%

00.00
Volume: 1030.6m³
21.5%
- Sleeping 10.3%
- Studying 2.5%
- Dining 0.0%
- Living 6.5%
- Kitchen 1.4%
- Change 0.8%
- Bath 4.4%
- Pack 3.2%

00.30
Volume: 1059.8m³
22.1%
- Sleeping 12.2%
- Studying 2.5%
- Dining 0.0%
- Living 6.5%
- Kitchen 1.4%
- Change 0.8%
- Bath 4.4%
- Pack 3.2%

01.00
Volume: 1094.2m³
22.8%
- Sleeping 12.2%
- Studying 2.5%
- Dining 0.0%
- Living 6.5%
- Kitchen 1.4%
- Change 0.8%
- Bath 4.4%
- Pack 3.3%

01.30
Volume: 1118.2m³
23.3%
- Sleeping 12.2%
- Studying 2.5%
- Dining 0.0%
- Living 6.5%
- Kitchen 1.4%
- Change 0.8%
- Bath 4.4%
- Pack 3.2%

02.00 - 05.30
Volume: 1118.2m³
23.3%
- Sleeping 12.2%
- Studying 1.3%
- Dining 0.0%
- Living 6.5%
- Kitchen 1.4%
- Change 0.8%
- Bath 4.4%
- Pack 3.2%

02.30
Volume: 1118.2m³
23.3%
- Sleeping 12.2%
- Studying 1.3%
- Dining 0.0%
- Living 6.5%
- Kitchen 1.4%
- Change 0.8%
- Bath 4.4%
- Pack 3.2%

03.00
Volume: 1147.4m³
23.9%
- Sleeping 14.0%
- Studying 0.0%
- Dining 0.0%
- Living 0.0%
- Kitchen 1.4%
- Change 0.8%
- Bath 4.4%
- Pack 3.3%

03.30
Volume: 1147.4m³
23.9%
- Sleeping 14.0%
- Studying 0.0%
- Dining 0.0%
- Living 0.0%
- Kitchen 1.4%
- Change 0.8%
- Bath 4.4%
- Pack 3.3%

04.00
Volume: 1147.4m³
23.9%
- Sleeping 14.0%
- Studying 0.0%
- Dining 0.0%
- Living 0.0%
- Kitchen 1.4%
- Change 0.8%
- Bath 4.4%
- Pack 3.3%

04.30
Volume: 1147.4m³
23.9%
- Sleeping 14.0%
- Studying 0.0%
- Dining 0.0%
- Living 0.0%
- Kitchen 1.4%
- Change 0.8%
- Bath 4.4%
- Pack 3.3%

05.00
Volume: 1147.4m³
23.9%
- Sleeping 14.0%
- Studying 0.0%
- Dining 0.0%
- Living 0.0%
- Kitchen 1.4%
- Change 0.8%
- Bath 4.4%
- Pack 3.3%

05.30
Volume: 1147.4m³
23.9%
- Sleeping 14.0%
- Studying 0.0%
- Dining 0.0%
- Living 0.0%
- Kitchen 1.4%
- Change 0.8%
- Bath 4.4%
- Pack 3.3%
Pack and Pick of One Floor
Volume Use in 24 hours

18.9%
(highest 24.8%)

[average used volume of one day out of 4800m³]
Households of One Floor

The mix of 14 households

Dwelling Volume: 4800m³

1 person Household x4
2 person Household x4
3 person Household x4
4 person Household x2
Furnitures of One Floor
Furniture mix of 14 households

Furniture Mix:
- Bed: 32
- Chair: 76
- Office Chair: 32
- Table: 48
- Book Shelf: 32
- Coach: 20
- Coffee Table: 24
- Shelf: 18
- Wardrobe: 32
- Fridge: 14
- Kitchen: 14
- Bathroom: 14

Packing Volume: 478m³

How much one floor need for pack?

10%

[Total pack volume compare to normal mode volume]
Pack of 1 Person House

Volume for furniture pack

Furniture Mix:
- Bed: 1
- Chair: 4
- Office Chair: 1
- Table: 2
- Book Shelf: 1
- Coach: 1
- Coffee Table: 1
- Shelf: 0
- Wardrobe: 1
- Fridge: 1
- Kitchen: 1
- Bathroom: 1

How much 1P household need for pack?

28.4m³

[Total pack volume compare to normal mode volume]
Pack of 2 Person House

Volume for furniture pack

Furniture Mix:
- Bed: 2
- Chair: 4
- Office Chair: 2
- Table: 3
- Book Shelf: 2
- Coach: 1
- Coffee Table: 2
- Shelf: 1
- Wardrobe: 2
- Fridge: 1
- Kitchen: 1
- Bathroom: 1

How much 2P household need for pack?

33.2m³

[Total pack volume compare to normal mode volume]
Pack of 3 Person House
Volume for furniture pack

Furniture Mix:
- Bed: 3
- Chair: 6
- Office Chair: 3
- Table: 4
- Book Shelf: 3
- Coach: 2
- Coffee Table: 2
- Shelf: 2
- Wardrobe: 3
- Fridge: 1
- Kitchen: 1
- Bathroom: 1

How much 3P household need for pack?

39.0 m³

[Total pack volume compare to normal mode volume]
Pack of 4 Person House
Volume for furniture pack

Furniture Mix:
- Bed: 4
- Chair: 10
- Office Chair: 4
- Table: 6
- Book Shelf: 4
- Coach: 2
- Coffee Table: 2
- Shelf: 3
- Wardrobe: 4
- Fridge: 1
- Kitchen: 1
- Bathroom: 1

How much 4P household need for pack?

44.0m³

[Total pack volume compare to normal mode volume]
What do they do in one day?

1P Household Activities
What do they do in one day?

2P Household Activities
What do they do in one day?

3P Household Activities
What do they do in one day?

4P Household Activities
Appendix: User Timelines

1P Households

2P Households
3P Households

**Sleeping 6hrs30mins**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1am</td>
<td>Studying</td>
<td>1hr30mins</td>
</tr>
<tr>
<td>2am</td>
<td>Breakfast</td>
<td>30mins</td>
</tr>
<tr>
<td>3am</td>
<td>Coffee</td>
<td>15mins</td>
</tr>
<tr>
<td>4am</td>
<td>Lunch</td>
<td>30mins</td>
</tr>
<tr>
<td>5am</td>
<td>Transport to School</td>
<td>30mins</td>
</tr>
<tr>
<td>6am</td>
<td>Morning Exercises</td>
<td>30mins</td>
</tr>
<tr>
<td>7am</td>
<td>Breakfast</td>
<td>30mins</td>
</tr>
<tr>
<td>8am</td>
<td>Lecture</td>
<td>2hrs</td>
</tr>
<tr>
<td>9am</td>
<td>Lunch</td>
<td>30mins</td>
</tr>
<tr>
<td>10am</td>
<td>Studying</td>
<td>3hrs15mins</td>
</tr>
<tr>
<td>11am</td>
<td>Coffee</td>
<td>15mins</td>
</tr>
<tr>
<td>12pm</td>
<td>Lunch</td>
<td>30mins</td>
</tr>
<tr>
<td>1pm</td>
<td>Working</td>
<td>3hrs</td>
</tr>
<tr>
<td>2pm</td>
<td>Lunch</td>
<td>30mins</td>
</tr>
<tr>
<td>3pm</td>
<td>Working</td>
<td>3hrs</td>
</tr>
<tr>
<td>4pm</td>
<td>Dinner</td>
<td>1hr30mins</td>
</tr>
<tr>
<td>5pm</td>
<td>Home Movie</td>
<td>1hr30mins</td>
</tr>
<tr>
<td>6pm</td>
<td>Cleaning</td>
<td>30mins</td>
</tr>
<tr>
<td>7pm</td>
<td>Sleep</td>
<td>8hrs</td>
</tr>
<tr>
<td>8pm</td>
<td>Shower &amp; Change</td>
<td>30mins</td>
</tr>
<tr>
<td>9pm</td>
<td>Sleep</td>
<td>7hrs30mins</td>
</tr>
<tr>
<td>10pm</td>
<td>Study</td>
<td>3hrs</td>
</tr>
<tr>
<td>11pm</td>
<td>Sleep</td>
<td>8hrs30mins</td>
</tr>
<tr>
<td>12am</td>
<td>Bar</td>
<td>2hrs</td>
</tr>
</tbody>
</table>

**Sleeping 7hrs30mins**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1am</td>
<td>Studying</td>
<td>1hr30mins</td>
</tr>
<tr>
<td>2am</td>
<td>Breakfast</td>
<td>30mins</td>
</tr>
<tr>
<td>3am</td>
<td>Coffee</td>
<td>15mins</td>
</tr>
<tr>
<td>4am</td>
<td>Lunch</td>
<td>30mins</td>
</tr>
<tr>
<td>5am</td>
<td>Transport to Home</td>
<td>30mins</td>
</tr>
<tr>
<td>6am</td>
<td>Morning Exercises</td>
<td>30mins</td>
</tr>
<tr>
<td>7am</td>
<td>Breakfast</td>
<td>30mins</td>
</tr>
<tr>
<td>8am</td>
<td>Working</td>
<td>3hrs</td>
</tr>
<tr>
<td>9am</td>
<td>Lunch</td>
<td>30mins</td>
</tr>
<tr>
<td>10am</td>
<td>Working</td>
<td>3hrs</td>
</tr>
<tr>
<td>11am</td>
<td>Lunch</td>
<td>30mins</td>
</tr>
<tr>
<td>12pm</td>
<td>Working</td>
<td>3hrs</td>
</tr>
<tr>
<td>1pm</td>
<td>Lunch</td>
<td>30mins</td>
</tr>
<tr>
<td>2pm</td>
<td>Working</td>
<td>3hrs</td>
</tr>
<tr>
<td>3pm</td>
<td>Lunch</td>
<td>30mins</td>
</tr>
<tr>
<td>4pm</td>
<td>Dinner</td>
<td>1hr30mins</td>
</tr>
<tr>
<td>5pm</td>
<td>Home Movie</td>
<td>1hr30mins</td>
</tr>
<tr>
<td>6pm</td>
<td>Cleaning</td>
<td>30mins</td>
</tr>
<tr>
<td>7pm</td>
<td>Sleep</td>
<td>8hrs</td>
</tr>
<tr>
<td>8pm</td>
<td>Shower &amp; Change</td>
<td>30mins</td>
</tr>
<tr>
<td>9pm</td>
<td>Sleep</td>
<td>7hrs30mins</td>
</tr>
<tr>
<td>10pm</td>
<td>Study</td>
<td>3hrs</td>
</tr>
<tr>
<td>11pm</td>
<td>Sleep</td>
<td>8hrs30mins</td>
</tr>
</tbody>
</table>

**Sleeping 7hrs30mins**
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>00h</td>
<td>Sleeping</td>
</tr>
<tr>
<td>01h</td>
<td>Breakfast</td>
</tr>
<tr>
<td>02h</td>
<td>Shower &amp; Change</td>
</tr>
<tr>
<td>03h</td>
<td>Class</td>
</tr>
<tr>
<td>09h</td>
<td>Lunch</td>
</tr>
<tr>
<td>10h</td>
<td>Playground</td>
</tr>
<tr>
<td>17h</td>
<td>Class</td>
</tr>
<tr>
<td>18h</td>
<td>Dinner</td>
</tr>
<tr>
<td>00h</td>
<td>Sleeping</td>
</tr>
<tr>
<td>01h</td>
<td>Breakfast, Change</td>
</tr>
<tr>
<td>02h</td>
<td>Class</td>
</tr>
<tr>
<td>05h</td>
<td>Lunch</td>
</tr>
<tr>
<td>10h</td>
<td>Playground</td>
</tr>
<tr>
<td>17h</td>
<td>Class</td>
</tr>
<tr>
<td>18h</td>
<td>Dinner</td>
</tr>
<tr>
<td>00h</td>
<td>Sleeping</td>
</tr>
<tr>
<td>01h</td>
<td>Breakfast, Change</td>
</tr>
<tr>
<td>02h</td>
<td>Walking Park</td>
</tr>
<tr>
<td>04h</td>
<td>Internet</td>
</tr>
<tr>
<td>05h</td>
<td>Lunch</td>
</tr>
<tr>
<td>10h</td>
<td>Shopping</td>
</tr>
<tr>
<td>17h</td>
<td>Reading</td>
</tr>
<tr>
<td>18h</td>
<td>Dinner</td>
</tr>
<tr>
<td>00h</td>
<td>Sleeping</td>
</tr>
<tr>
<td>01h</td>
<td>Breakfast, Change</td>
</tr>
<tr>
<td>02h</td>
<td>Office Working</td>
</tr>
<tr>
<td>09h</td>
<td>Lunch</td>
</tr>
<tr>
<td>10h</td>
<td>Dinner</td>
</tr>
<tr>
<td>00h</td>
<td>Sleeping</td>
</tr>
<tr>
<td>01h</td>
<td>Breakfast, Change</td>
</tr>
<tr>
<td>02h</td>
<td>Office Working</td>
</tr>
<tr>
<td>09h</td>
<td>Lunch</td>
</tr>
<tr>
<td>10h</td>
<td>Dinner</td>
</tr>
<tr>
<td>00h</td>
<td>Sleeping</td>
</tr>
<tr>
<td>01h</td>
<td>Breakfast, Change</td>
</tr>
<tr>
<td>02h</td>
<td>Office Working</td>
</tr>
<tr>
<td>09h</td>
<td>Lunch</td>
</tr>
<tr>
<td>10h</td>
<td>Dinner</td>
</tr>
<tr>
<td>00h</td>
<td>Sleeping</td>
</tr>
</tbody>
</table>