HOME AS WORKPLACE

A spatial reading of work-homes

PART -B

Lead Authors:
Nidhi Sohane

Contributing Authors:
Ruchika Lall, Ashwatha Chandran, Rasha Hasan Lala, Namrata Kapoor, Harshal Deepak Gajjar

Reviewer:
Gautam Bhan

Editing and Production Support:
Sofia Juliet Rajan, IIHS Word Lab

Design and Layout:
IIHS Design Team

SUGGESTED CITATION:
Sohane, N., Lall, R., Chandran, A., Lala, R., Kapoor, N., Gajjar, H. (2021). Home as Workplace: A spatial reading of workhomes. Indian Institute for Human Settlements (IIHS) and Women in Informal Employment: Globalising and Organising (WIEGO).

DOI: 10.24943/HWSRWH10.2021

Available at: https://doi.org/10.24943/HWSRWH10.2021

Table of Contents

Introduction

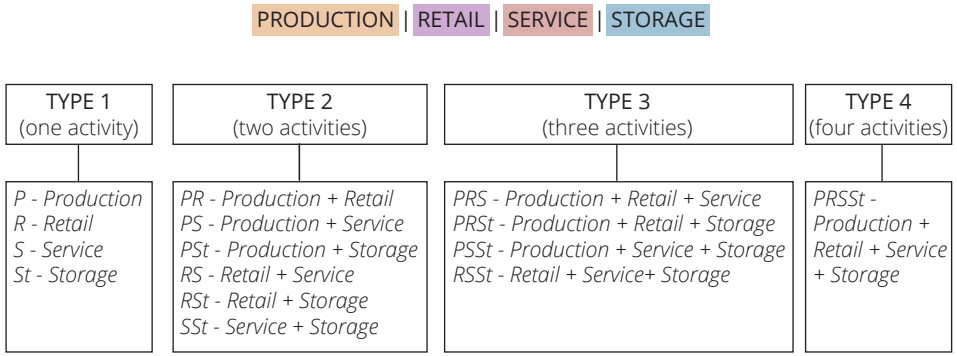
This document makes Part B of this two-part report on work-homes. An inventory of spatial analysis of work-homes across the Global South, it is designed to be read alongside Part A of the report. These cases are not a primary study but a representation of secondary cases from across the globe, analysed with the framework established in part A in as far as possible through a secondary study. The cases are across a combination of scales, viz. Individual work-homes, work-homes in buildings, streets, neighbourhoods and settlements. The word 'intervention' is used to recognise the active agency of users in adapting the space to serve as work-homes. This may be done by the many ways of maneuvering the work-home boundary as has been discussed in detail in Section 3 of Part A. The study has tried to look at the following parameters as far as possible across all cases:

Type of case and spatial configuration

Cases have been categorised into five types, viz.

S.no.	Types of cases		Number of cases
1	Single activity work-homes	Production (SP)	13
2		Retail (SR)	6
3		Service (SS)	7
4		Storage (SSt)	4
5	Multi-activity work-homes	(M)	21

Each case has a unique code signifying its type. They are named SP1, SP2; SR1, SR2, and so on. In multi-activity work-homes there is a combination of different kinds of productive activities occurring together. These have been tagged with a code signifying number of activity types and the kind of activities. All single activity cases are tagged Type 1P, Type 1R, Type 1S, and Type 1St as relevant. Multi-activity cases can have a wide range of mixes and have been tagged such. For instance, a case tagged as Type 2PR has two kinds of productive activities, viz. Production and Retail. While the study does not cover examples of each type, the figure below shows all possible combinations of productive activities in work-homes.



Location and industry

Cases have been represented from across the Global South and various industries. Annexure B enables a quick glance at geographies and industries covered.

Type of intervention

Across the cases, work-homes can be seen as adapted for productive activities either by users themselves or by other actors. These have been distinguished as 'user intervention' and 'intervention by other actors' respectively. In certain cases, like Case SR6, there is a combination of intervention made by other actors, as well as users themselves.

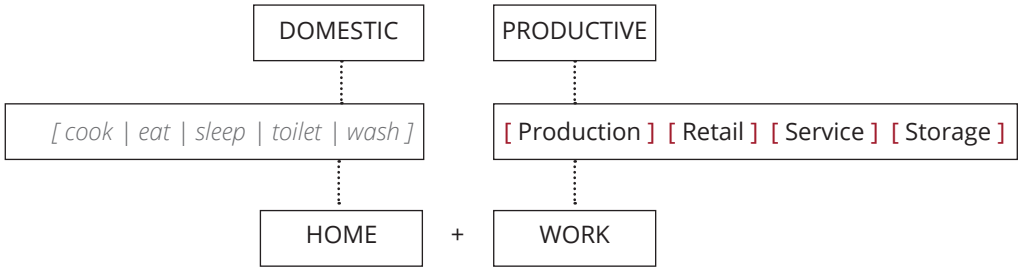
Scale and kind of intervention, and tenure situation

Some interventions are carried out at the scale of the work-home, others in scales like the street or neighbourhood. An important aspect to note in these is whether these interventions are made within the unit, or adjacent

to the unit. The tenure conditions of the work-home become particularly relevant in this respect. The floor on which said work-home is located plays a crucial part in the amount of space available adjacent to the unit, and the claims a resident is able to make.

Activity mapping

Activities carried out in the work-home are mapped to read how different spaces are used for domestic and productive activities. This is typically accompanied by architectural drawings, sketches or photographs of the space where productive activities are carried out. Activities have been distinguished into the framework of production, retail, service and storage. While storage remains pervasive across most cases, and is often taken as a given with other activities, viz. P, R and S, storage has been marked separately when especially occupying significant space or articulated specifically, happening in conjunction to productive activities that are not carried out in the work-home or when interventions have been made specifically for storage.



Built form and spatial characteristics

The material qualities of the work-home and the kind of access to physical infrastructure are of particular importance to understand the quality of space that is available for work. As also established in part A, the quality of space impacts productivity, and also indicates possible conflict in time or space between the domestic and productive spheres. This may be explored by looking at the quality of access to physical infrastructure.

Context and spatial schematic

In line with Section 2 of Part A, a spatial impact of the work-homes and its context on each other is explored in as many cases as possible. This is done by looking at the built fabric in the vicinity through aerial imagery, and readings of spatial patterns in the immediate vicinity, street, or in the neighbourhood through images, drawings and sketches. A spatial schematic highlighting morphology of the work-home viz.a.viz its vicinity has been drawn for as many cases as possible, to understand the relationship work-homes have to space adjacent to the unit.

Annexure B tabulates all 51 cases covered in Part B for a quick comparative reading across types, locations, industries, type of interventions, tenure and infrastructure.

Single activity work-homes:

Production (SP)

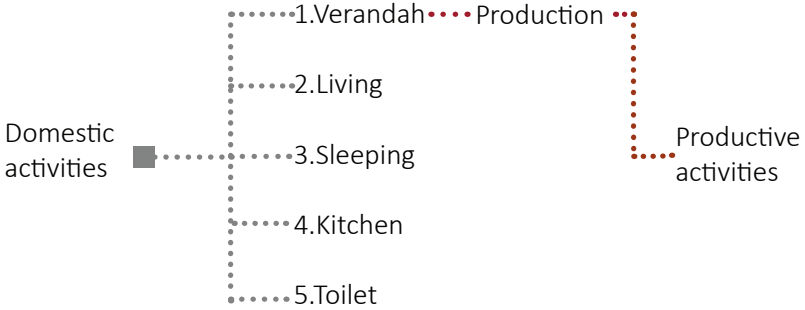
CASE SP1 |CRIT & JJ College of Architecture, 2010

Type 1 P

Home + Production

Name : Kunchikorve Nagar
Location : Kalina, Mumbai
Tenure : Occupant-made dwellings on govt and private land.
Industry : Broom making
Type of practie : User Intervention.

Activity Mapping



The main occupation of the women in Kunchikorve Nagar is broom-making. Verandahs and internal spaces of work-homes are used for productive activities.

Scale: Building

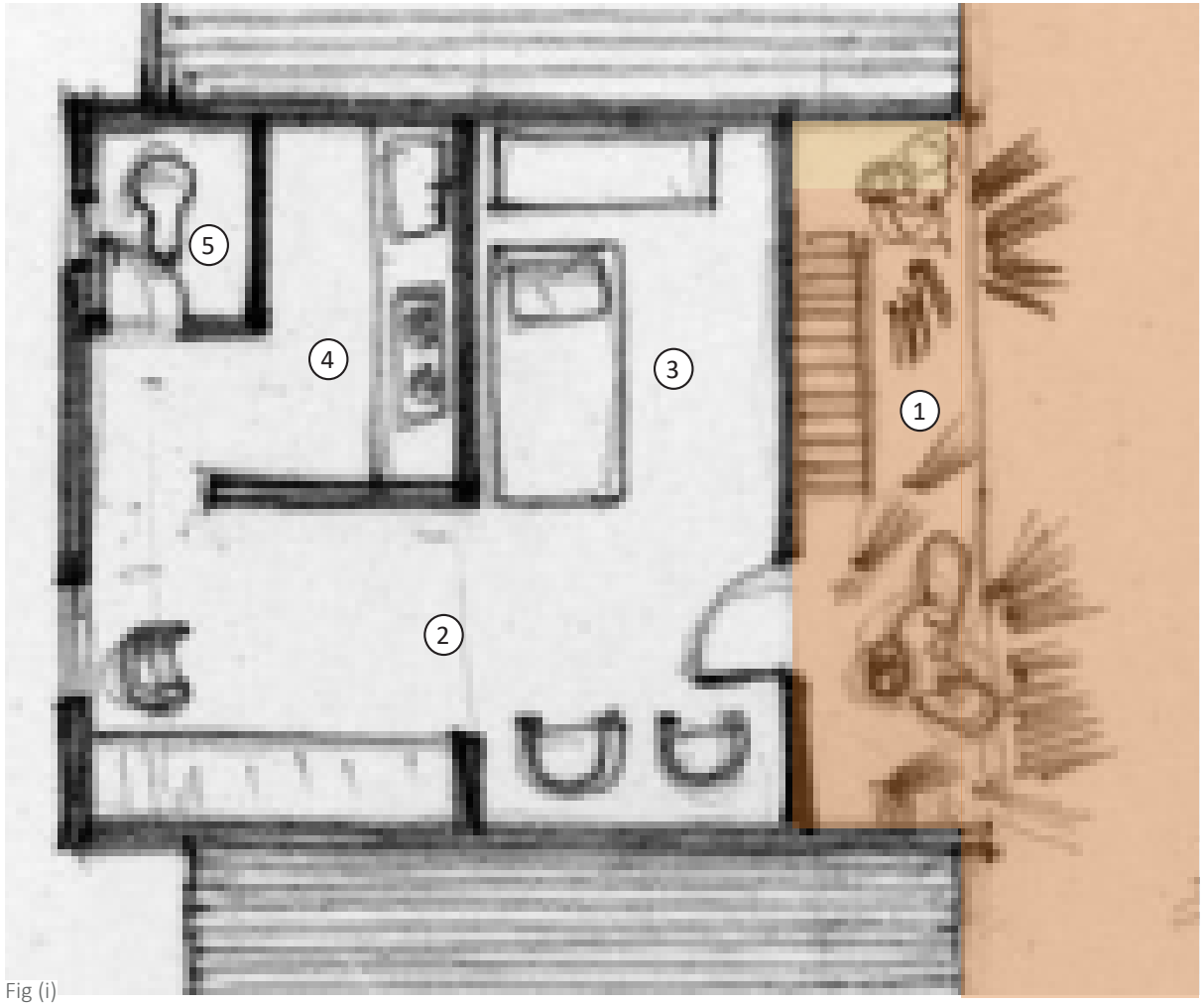


Fig (i)

Floor plan mapping productive activities in a typical work-home.

(i) Base image : from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf.

Scale: Street

Semi-covered verandahs of work-homes along internal streets are used for productive activities.

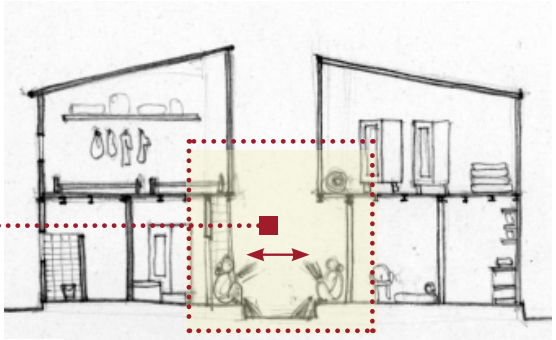


Fig (ii)

Fig (iii)

A section(ii) and a plan(iii) of a typical street in Kunchikorve Nagar.

Scale: Neighbourhood

Physical Infrastructure

Water-The settlement has municipal water supply with individual meters. The people also obtain water from bore wells dug at various locations.

Sewage-Waste water flows in channels along houses, covered at places with concrete slabs.

Toilet-There are three public toilets in the area. About 15% houses have their own toilets.

Electricity-Unclear

Access- present means of access unclear

(ii), (iii) Base images : from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf.

Information on physical infrastructure and spatial location derived from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf.

Built form and spatial characteristics

Fig (iv)

Single storeyed work-homes are typically built with brick walls and tin sheet roof. These have two to three homes, sometimes with a verandah.

Two storeyed work-homes are typically built with steel frames and tin sheet roofing. These units generally have a single room on each storey.

Fig (v)

Concrete plinth through the street that becomes the extension of the unit entrances.

Steel frame staircases used to access upper floors which are generally rented.

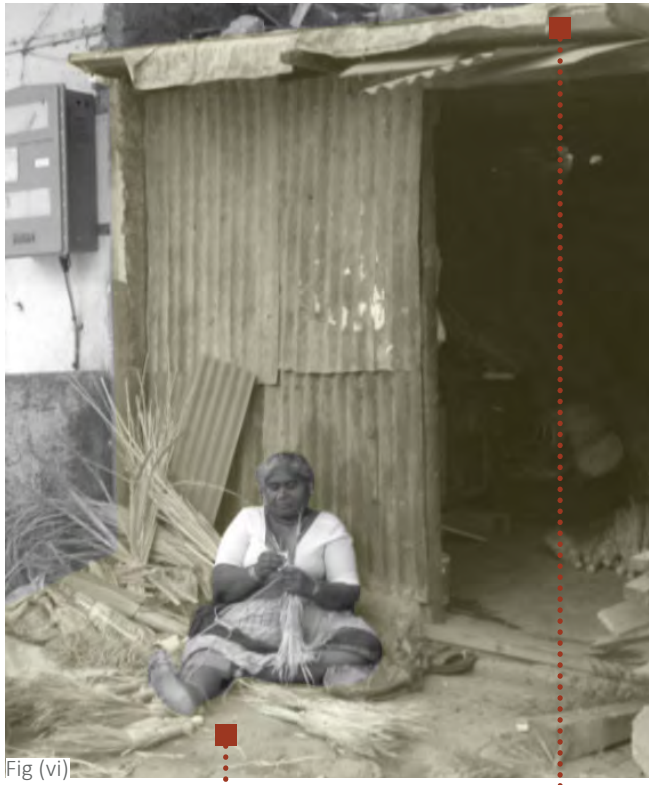


Fig (vi)

Verandah outside the work-home.

Tin sheets and wooden rafters are often used along the walls and roofs of these dry structures.

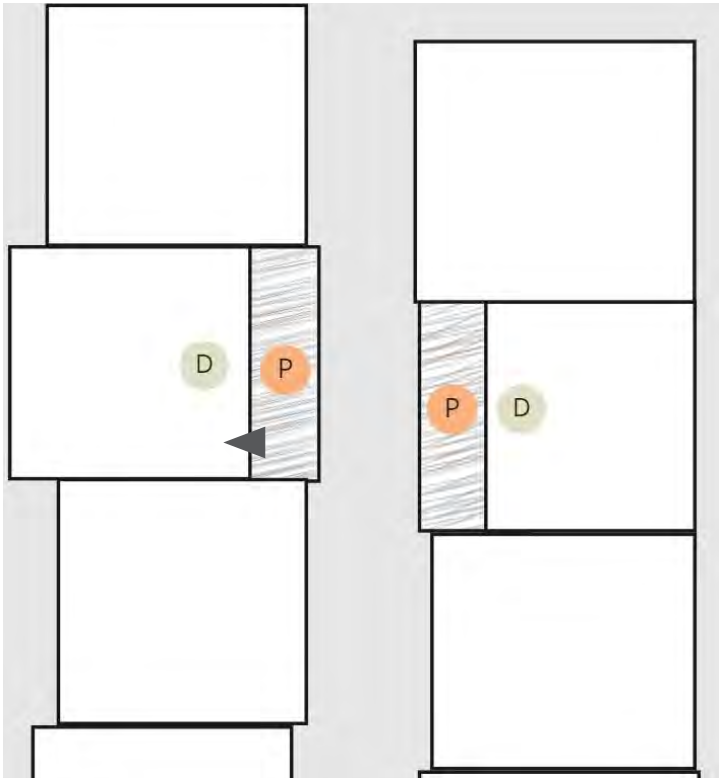
(iv), (v), (vi) Base images : from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf.

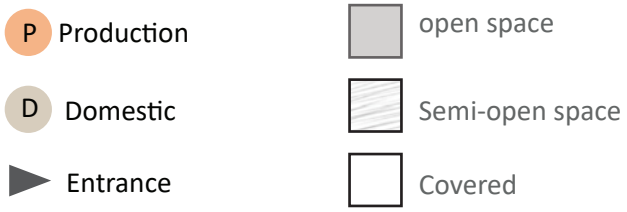
Built form and spatial characteristics

Fig (vii)

Space adjacent to the units along the streets is used to store items used for the production of brooms.

Spatial schematic





(vii) Base image : from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf.

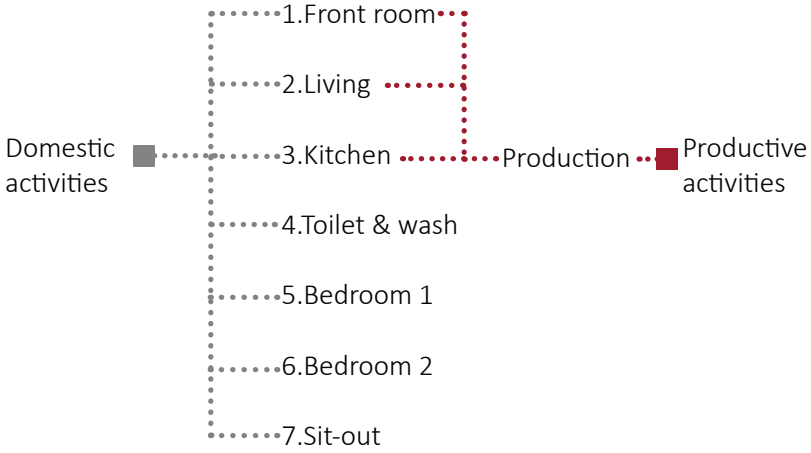
CASE SP2 |Bhadja, 2019

Type 1 P

Home + Production

Name : Kanubhai Patel
Location : Chirakut society, Memnagar, Ahmedabad.
Tenure : Owner occupancy
Industry : Sweet making
Type of practice : User Intervention

Activity Mapping



Domestic and the productive activities overlap in the front room and kitchen. The front room is used by customers, family members and to entertain guests. The kitchen is used for cooking for the household as well as making sweets. The overall area of the work-home is around 63 sq.m.

Scale: Building

Fig (i)

The floor plan mapping the productive activities within Kanubhai's home.

(i) Base image : Dwg.2.2.3.3 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314 .

Scale: Building

Original layout of the apartment.

The unit was expanded and changed by Kanubhai to accomodate production of sweets and have access from the road.

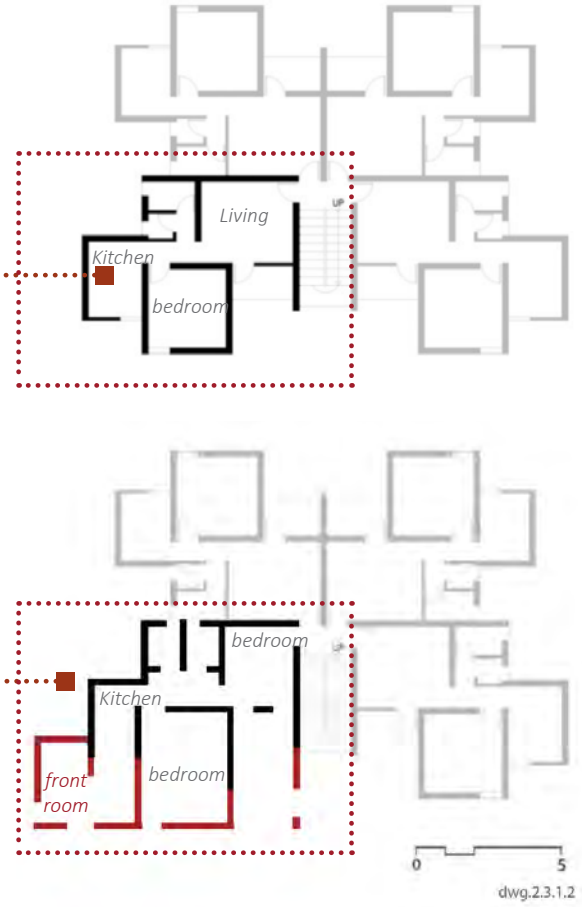


Fig (ii)

Ground floor plan of Kanubhai's apartment mapping changes made to original layout. Being on the ground floor allows Kanubhai to make significant changes to the access and configuration of the work-home. .

Scale: Neighbourhood

Physical Infrastructure

Water- unclear

Sewage-Unclear

Toilet- Toilet indicated in the floor plan.

Electricity- unclear

Access- Unclear

(ii) Base image : Dwg.2.2.3.2 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

Information on physical infrastructure and spatial location derived from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

Built form and spatial characteristics

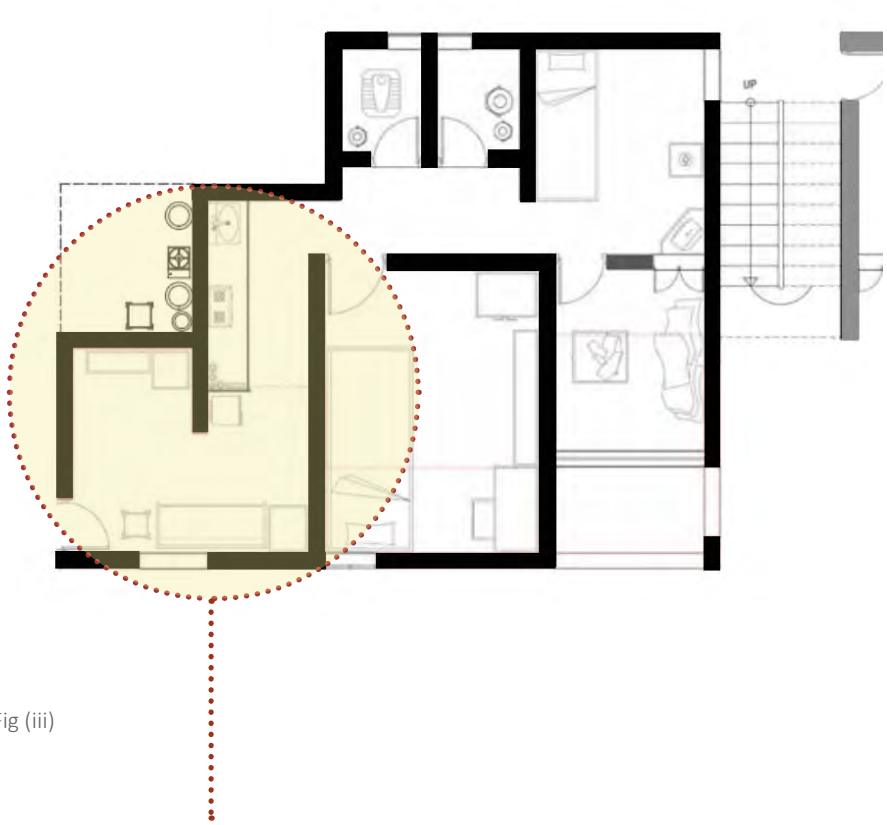


Fig (iii)

The front room is the room which serves as the entrance to the house. Its proximity to the kitchen is cited as the reason to carry out productive activities here. This room opens to the adjoining road.

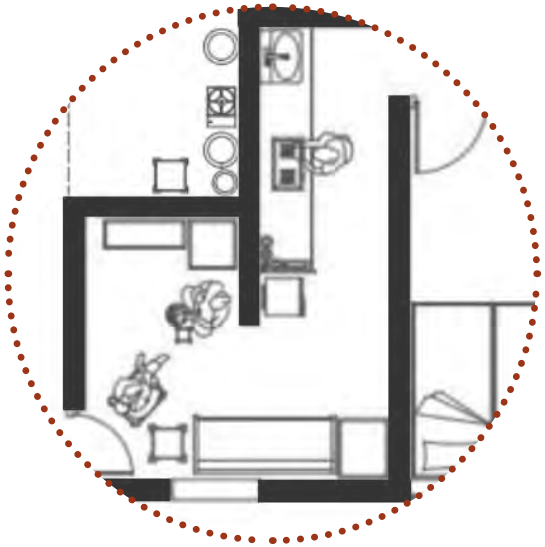


Fig (iv) Working

"Guests and customers are allowed only in the front room. One can see in the kitchen but not beyond the kitchen."

Fig (v) Eating

"My wife works in the living room only and guests are also entertained in the living room. All the other spaces have their independent functions and do not overlap."

(i), (iii) Base image : Dwg.2.2.3.3 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

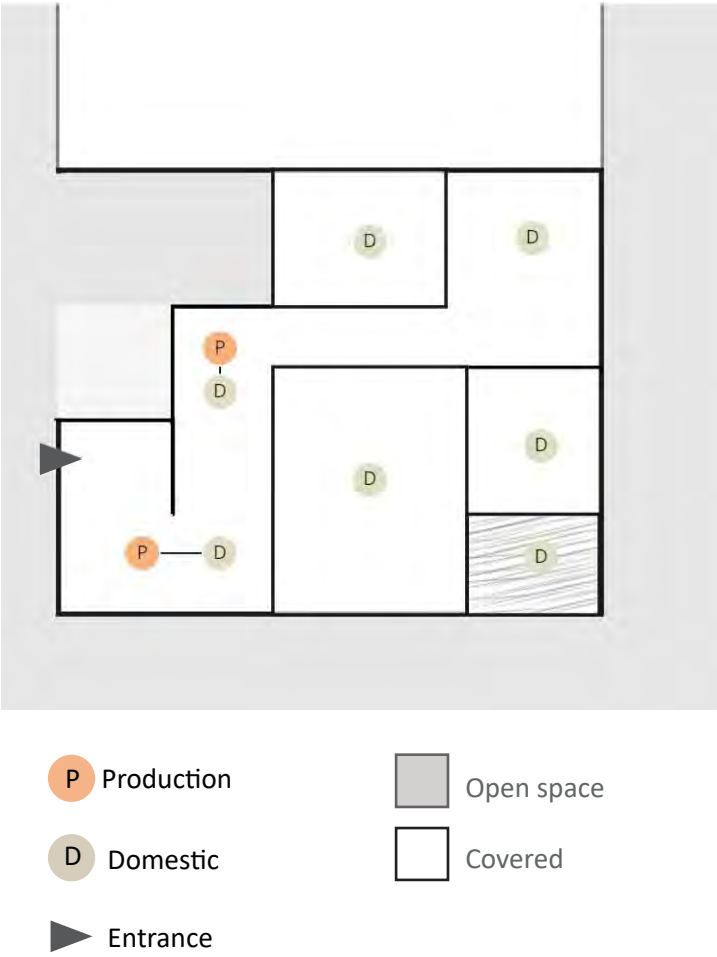
(ii) Base image : Dwg.2.2.3.2 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

Built form and spatial characteristics

Fig (vi)

Kanubhai's work-home is part of a muti-storey apartment complex. The image above maps lighting in different spaces.

Spatial schematic



(iv) Base image floor plan drawing : Dwg.2.2.3.4 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

CASE SP3 |Dennis, 2018

Type 1 P

Home + Production

Name : Godavari Parulekar Housing Scheme
Location : Kumbhari, Solapur, Maharashtra
Tenure : Owner occupancy
Industry : Beedi making
Type of intervention : Intervention by Centre of Indian Trade Unions' (CITU).

This mass housing scheme is an excellent example of work-homes for a particular trade, facilitated by a trade union. It is also noteworthy that basic services viz. electricity and water supply were brought it by the State because of union intervention. Productive activities take place wihin and adjacent to the work-homes in this housing scheme.

Scale: Building

Fig (i)

A view of women carrying out productive activities in a work-home in the housing scheme.

(i) Base Image : from Dennis, S. (2018, April 17). *How women beedi workers set up Asia's largest housing cooperative.* Open Democracy. https://www.opendemocracy.net/en/tc-solapur-housing-beedi-workers/

Scale: Neighbourhood

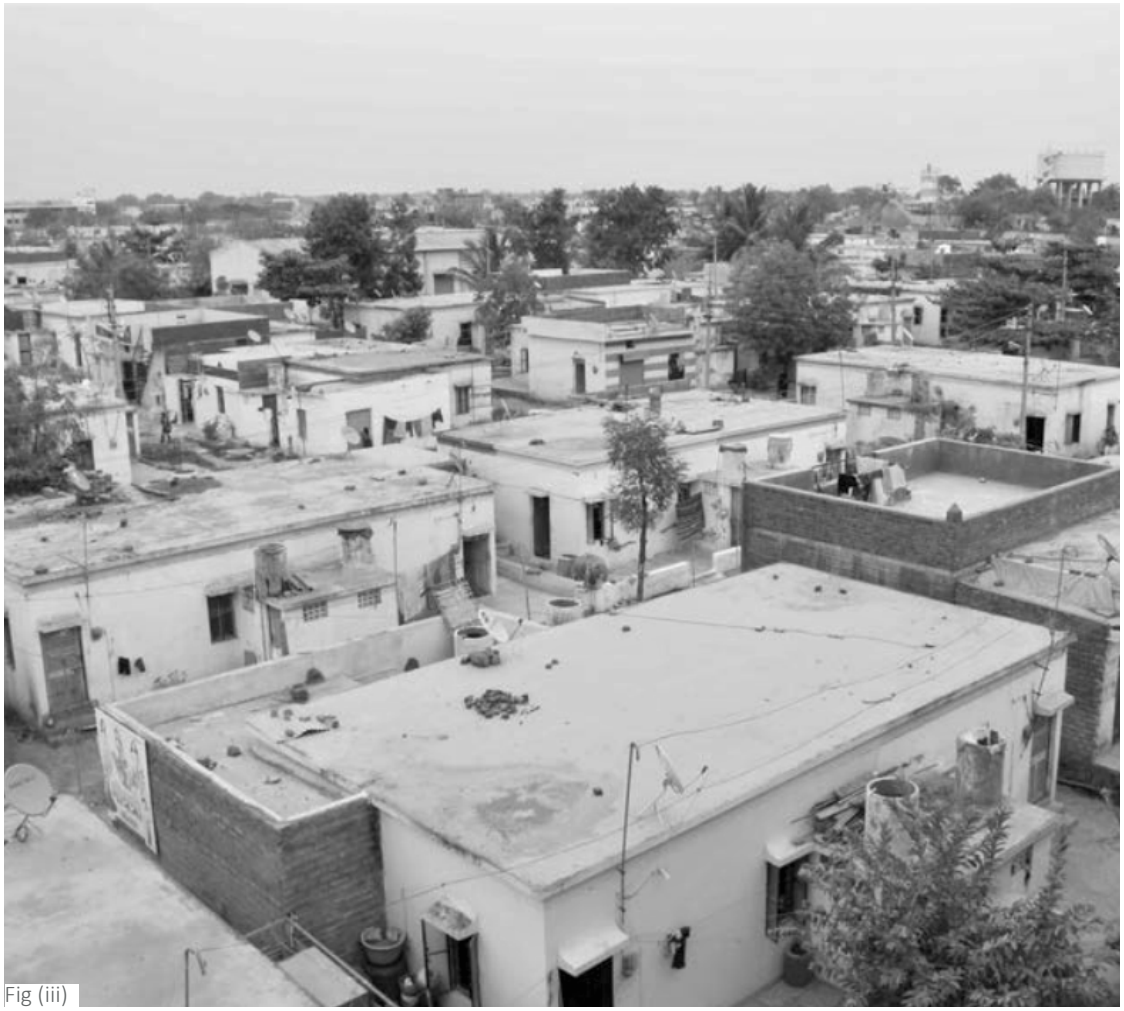


Fig (iii)

A view of the housing scheme.

Physical Infrastructure

Water- Supply provided by Municipal Corporation of Solapur

Sewage- Unclear

Toilet- Unclear

Electricity- Lines installed by the State.

Access- Unclear.

(ii) Base Image : from Dennis, S. (2018, April 17). *How women beedi workers set up Asia's largest housing cooperative.* Open Democracy. https://www.opendemocracy.net/en/tc-solapur-housing-beedi-workers/

Information on physical infrastructure derived from Dennis, S. (2018, April 17). *How women beedi workers set up Asia's largest housing cooperative.* Open Democracy. https://www.opendemocracy.net/en/tc-solapur-housing-beedi-workers/ and Tricontinental. (2018). *The Story of Solapur: where housing cooperatives are building a workers' city.* Tricontinental. https://www.thetricontinental.org/wp-content/uploads/2018/07/180704_Dossier-6_EN_Final.pdf

Built form and spatial characteristics

Fig (iv)

An image of the housing scheme while under construction. Wet-construction techniques were employed.

Fig (v)

Women using the open space outside their work-homes for beedi-making.

"Earlier we used stay in a small hut in a slum in Shastri Nagar, Solapur city. When it rained, the hut used to leak, and there wouldn't be a single dry patch inside. We had to continuously bail out the water when it rained."

(iii) Base Image : from Tricontinental. (2018). The Story of Solapur: where housing cooperatives are building a workers' city. Tricontinental. https://www.thetricontinental.org/wp-content/uploads/2018/07/180704_Dossier-6_EN_Final.pdf

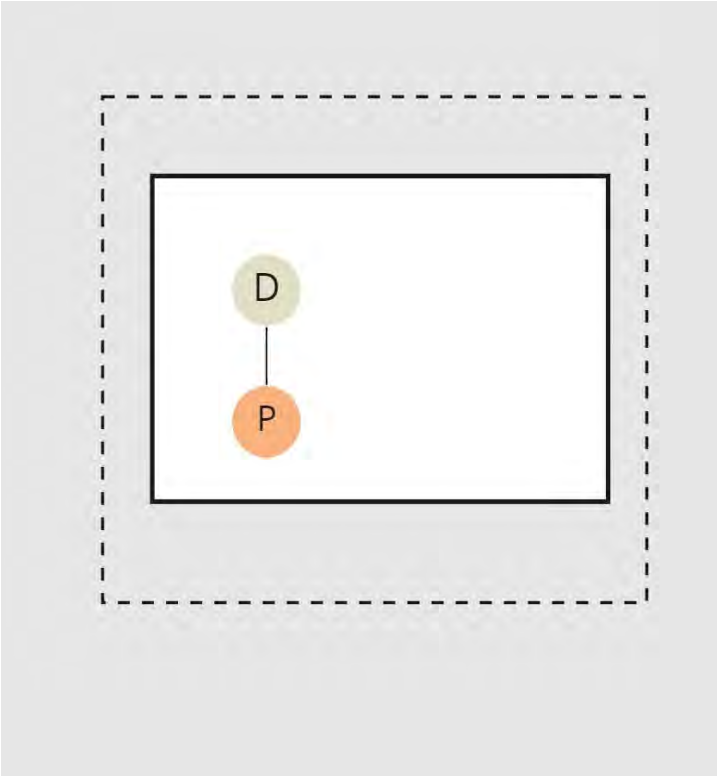
(iv) Base Image : from Dennis, S. (2018, April 17). *How women beedi workers set up Asia's largest housing cooperative.* Open Democracy. https://www.opendemocracy.net/en/tc-solapur-housing-beedi-workers/

Built form and spatial characteristics

Fig (vi)

A typical unit in the scheme measures around 555 sq. ft.
The project is spread across 182 hectares.

Spatial schematic



(vi) Base Image : from Dennis, S. (2018, April 17). *How women beedi workers set up Asia's largest housing cooperative*. Open Democracy. https://www.opendemocracy.net/en/tc-solapur-housing-beedi-workers/

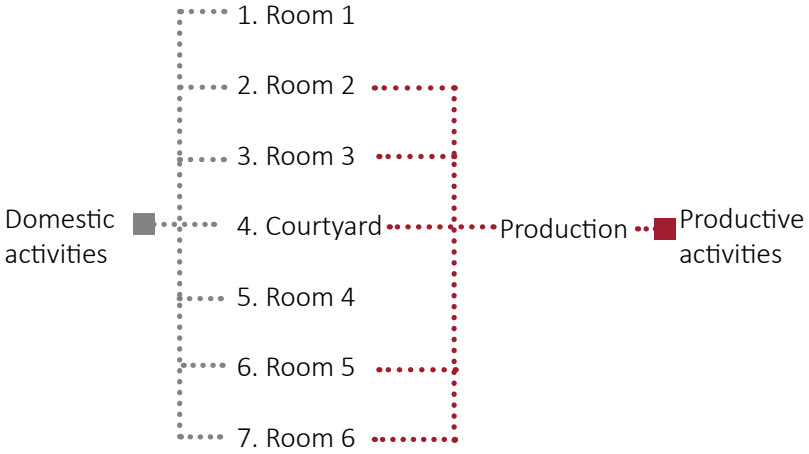
CASE SP4 |Mathankar, Karsoliya & Siva, 2018

Type 1 P

Home + Production

Name : Mason's house
Location : Chanderi, Madhya Pradesh
Tenure : Owner occupancy
Industry : Beedi making, handloom
Type of Intervention : User Intervention.

Activity Mapping



Productive and domestic activites are both carried out in most rooms of the work-home. Rooms 1, 2, 3, 4 and 6 are used for beedi production. Room 3 is also used for handloom weaving.

Scale: Building

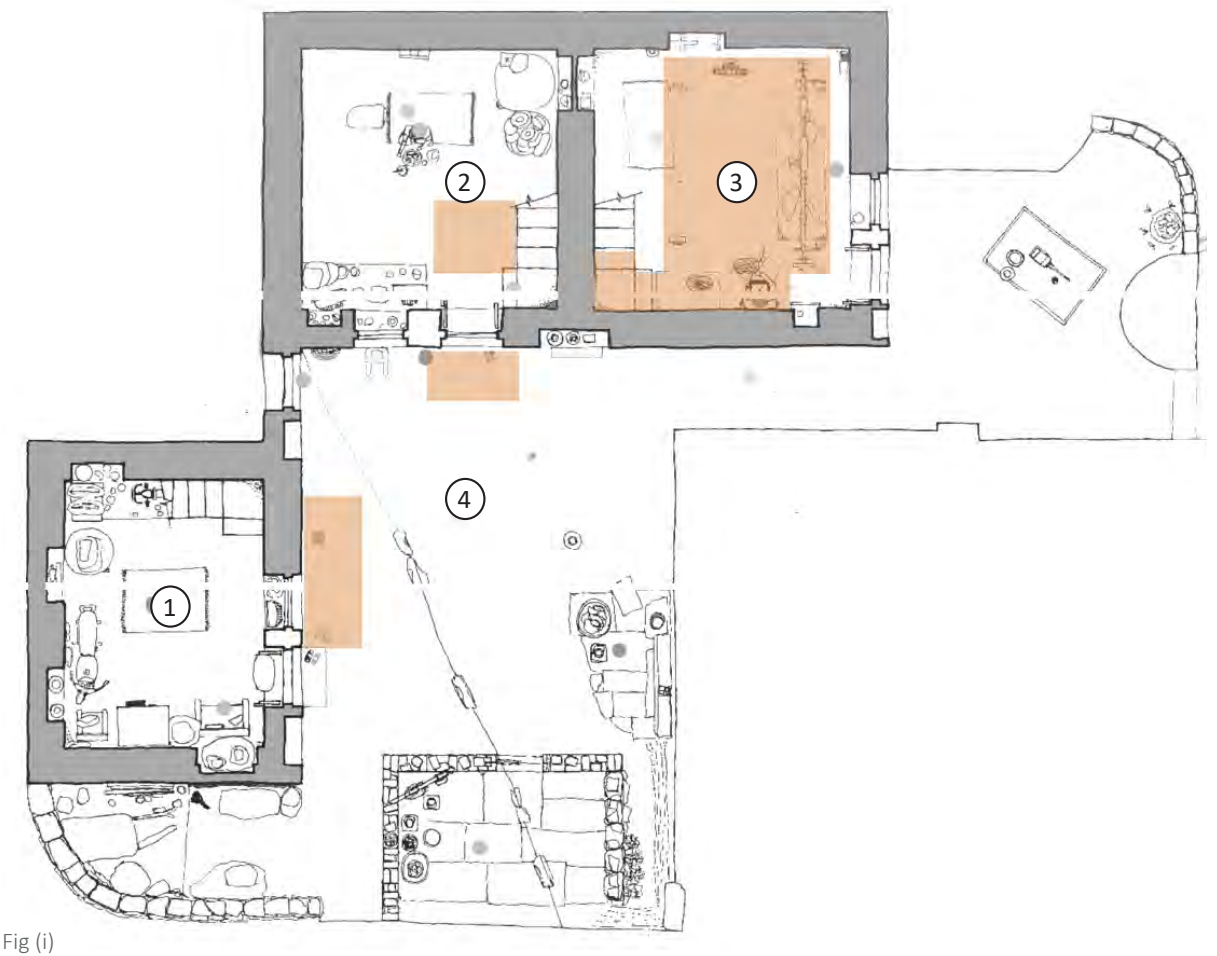


Fig (i)

The ground floor plan mapping the productive activities within Mason's house.

(i) Base layer : from Mathankar, R., Karsoliya, M., & Siva, ESS. (2018). *Dwelling Study: The Ghosi Residence* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Scale: Building

Fig (ii)

First floor plan mapping the productive activities within Mason's house.

Physical infrastructure

Water- Unclear

Sewage- Unclear

Toilet- Bath and toilet on both levels.

Electricity- Unclear

Access- Present means of access unclear.

(ii) Base layer: from Mathankar, R., Karsoliya, M., & Siva, ESS. (2018). *Dwelling Study: The Ghosi Residence* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Information on physical infrastructure derived from Mathankar, R., Karsoliya, M., & Siva, ESS. (2018). *Dwelling Study: The Ghosi Residence* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

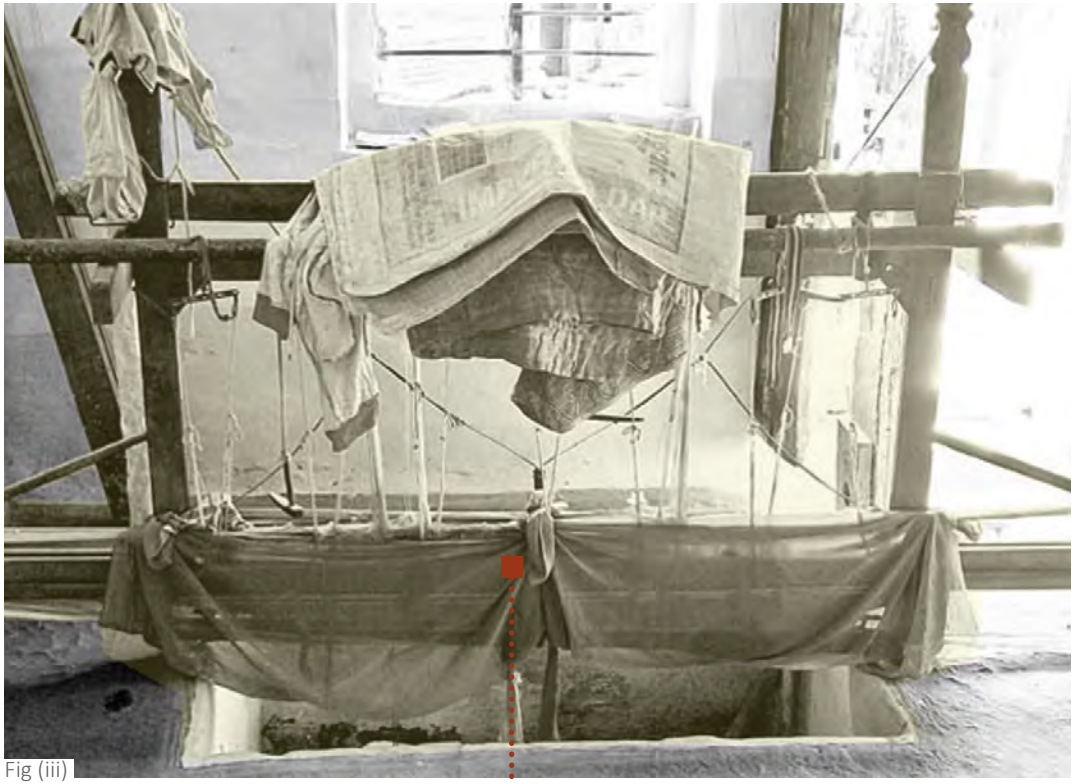


Fig (iii)

Room 3 is used for two types of productive activities viz. handloom weaving and beedi making.

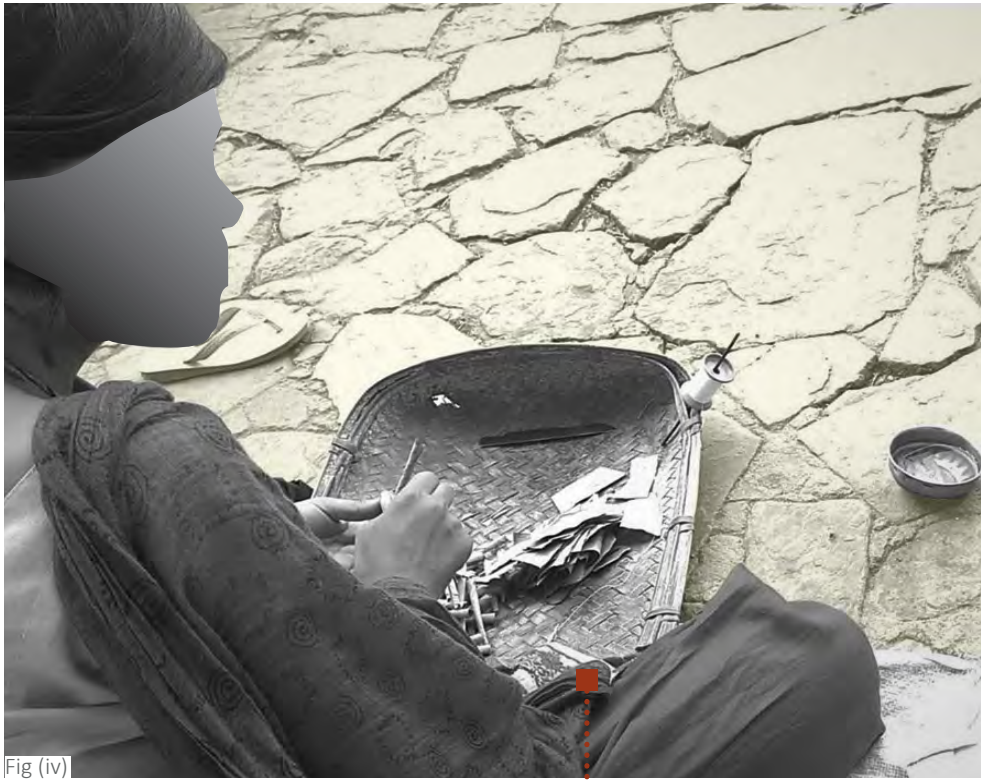


Fig (iv)

Beedi making being carried out in the courtyard.

(iii) and (iv) Base layer : from Mathankar, R., Karsoliya, M., & Siva, ESS. (2018). *Dwelling Study: The Ghosi Residence* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Built form and spatial characteristics

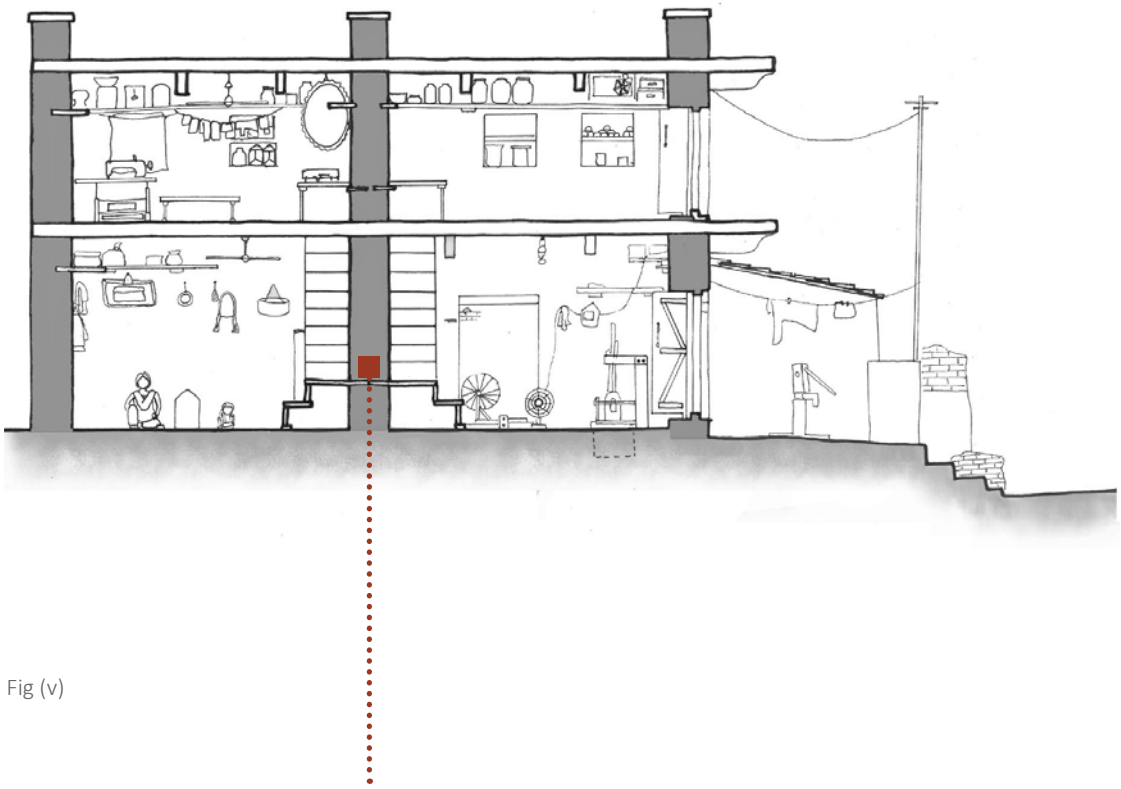
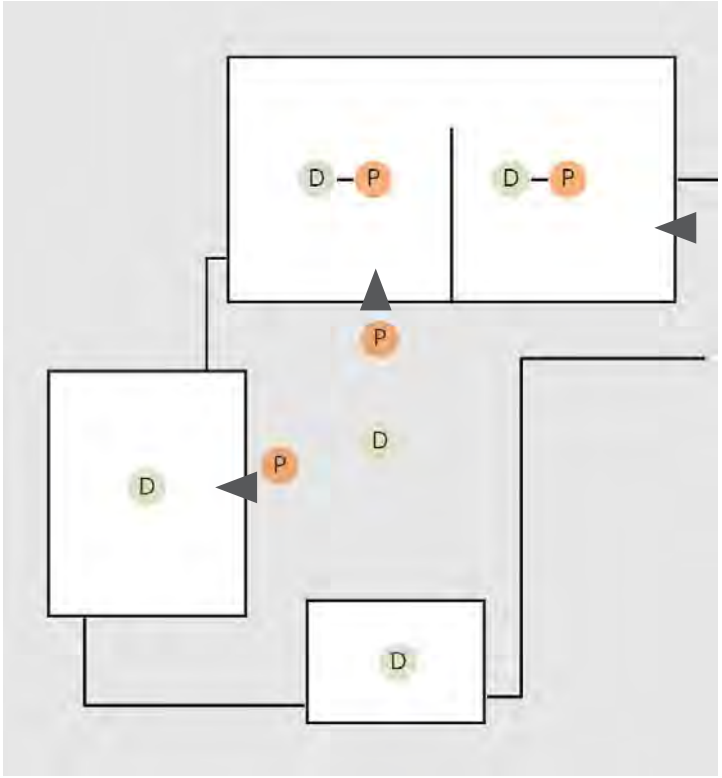
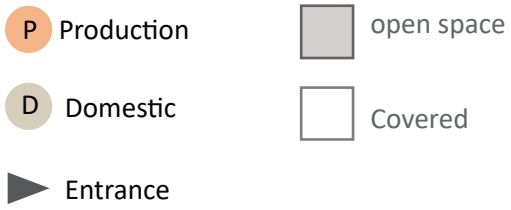


Fig (v)

The structural system employs load-bearing stone walls.

Spatial schematic





(v)Base layer : from Mathankar, R., Karsoliya, M., & Siva, ESS. (2018). *Dwelling Study: The Ghosi Residence* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

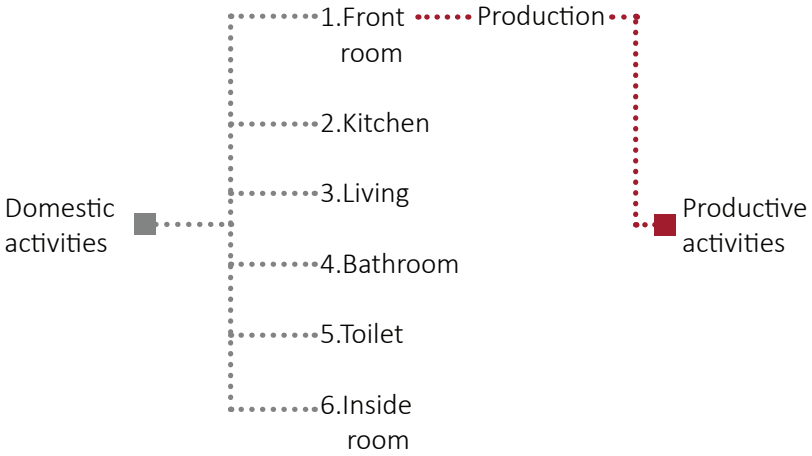
CASE SP5 |Bhadja, 2019

Type 1 P

Home + Production

Name : Bharatbhai Bokolia
Location : Amee Apts, Memnagar, Ahmedabad
Tenure : Owner occupancy
Industry : Mochi
Type of practice : User Intervention

Activity Mapping



The front room is used for cutting shoe soles and drying the leather sheets. The room is also used for sleeping during the night. Other areas of the house remain largely dedicated for domestic activities. The overall area of the work-home is 51 sq.m, and the working hours are from 12pm to 6pm.

Scale: Building

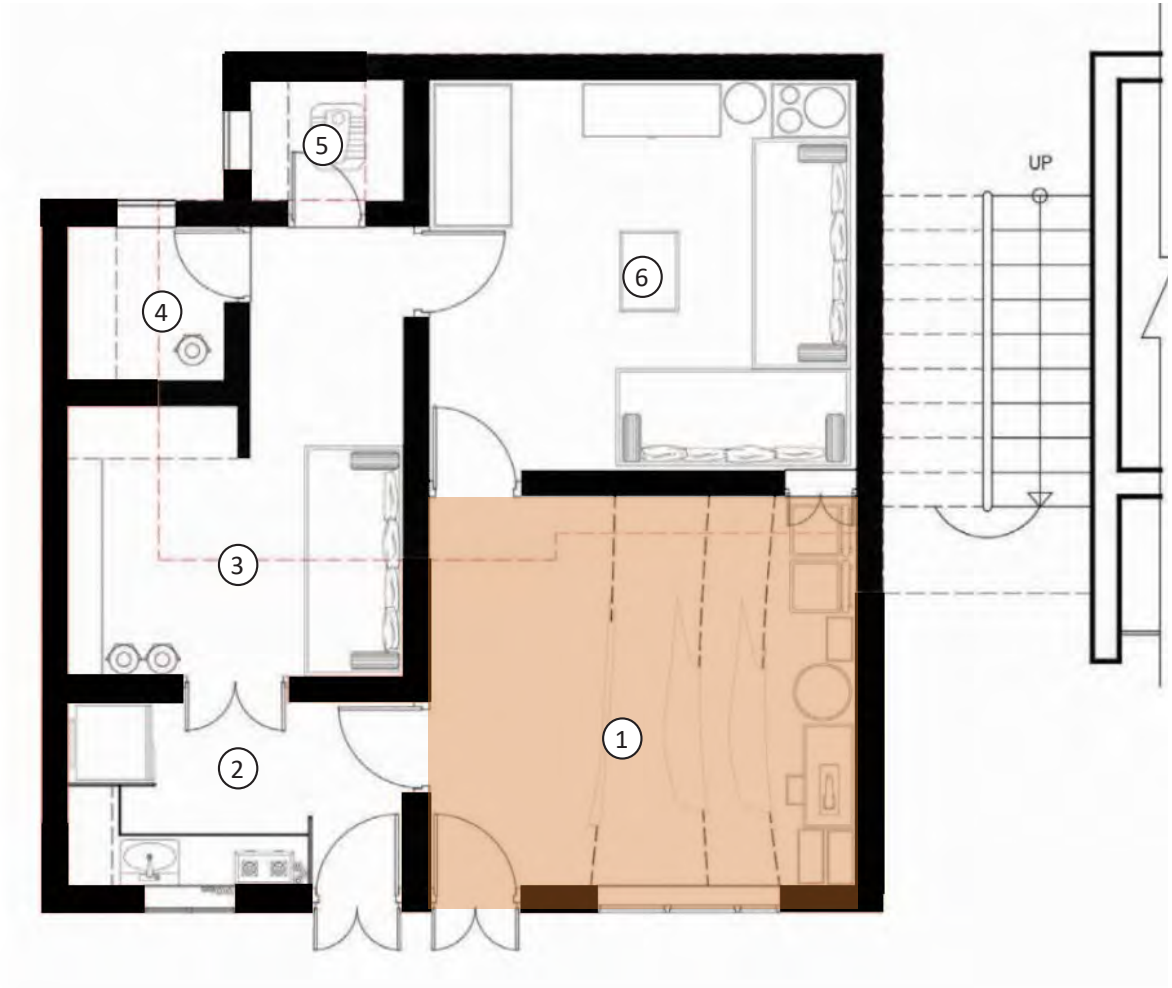


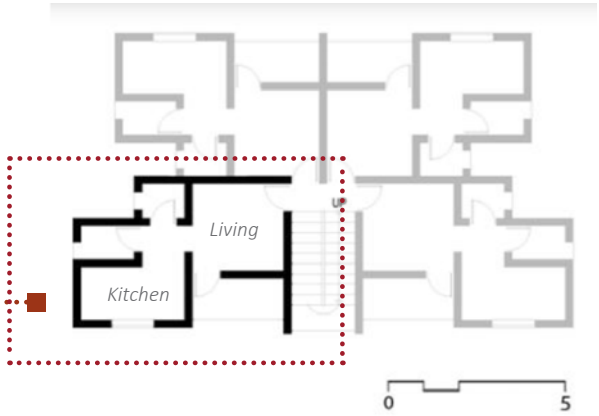
Fig (i)

Ground floor plan mapping productive activities within Bharatbhai's house.

(i) Base image : from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314

Scale: Building

Original layout of the apartment.



The unit as expanded and changed by the owner to accomodate productive activities.

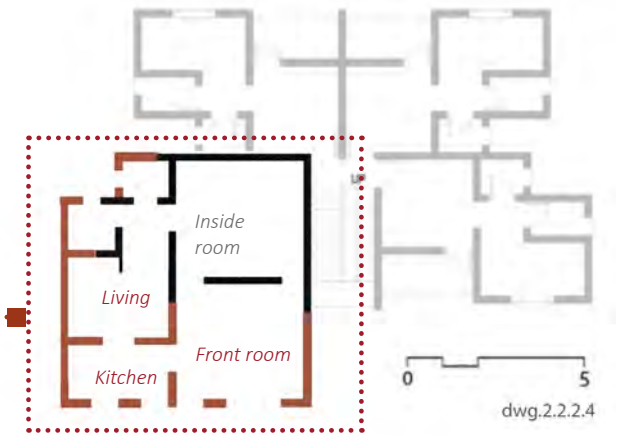


Fig (ii)

Ground floor plan of Bharatbhai's work-home mapping changes made to original layout.

Scale: Neighbourhood

Physical Infrastructure

Water- Unclear

Sewage-Unclear

Toilet- Toilet indicated in the floor plan.

Electricity- Unclear

Access- Present means of access unclear.

(ii) Base image : Dwg.2.2.2.2 from : from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314

Information on physical infrastructure and spatial location derived from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/

Built form and spatial characteristics

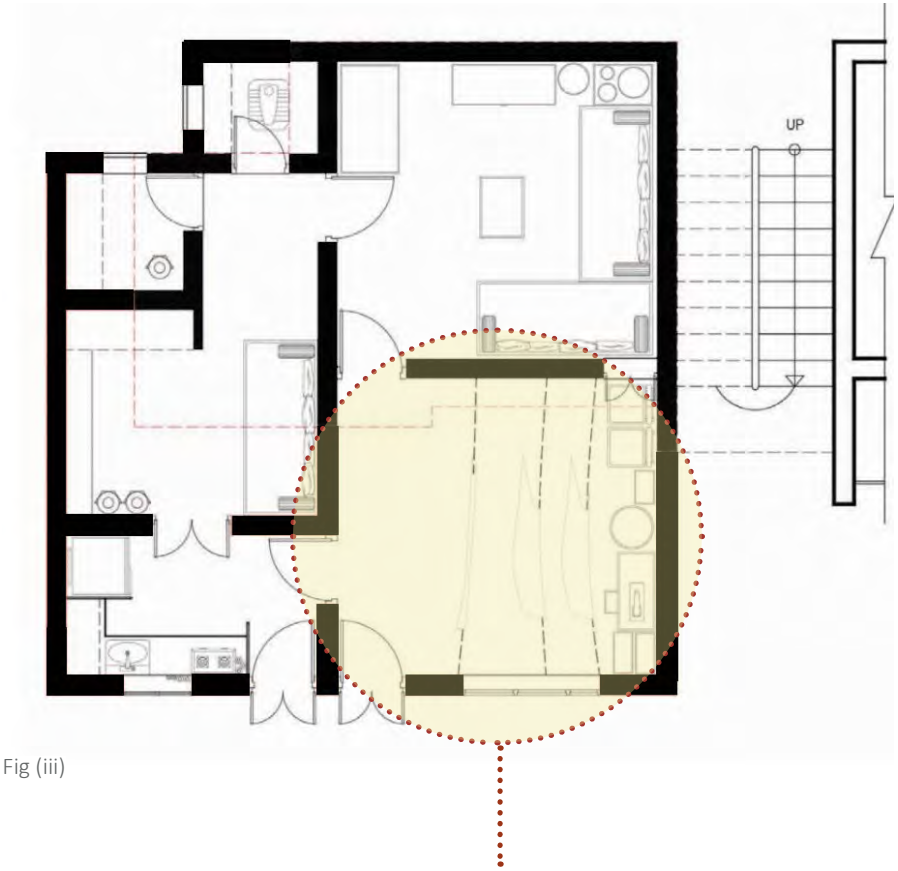


Fig (iii)

The front room is used for both domestc and productive activites. Only women use the entry through the kitchen, while the entry through the front room remains open to anyone. The front room is better lit and therefore chosen for work.

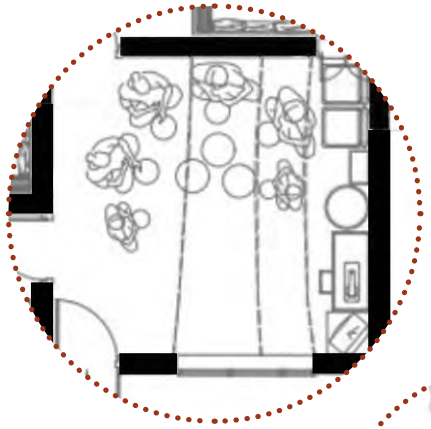


Fig (iv) Eating

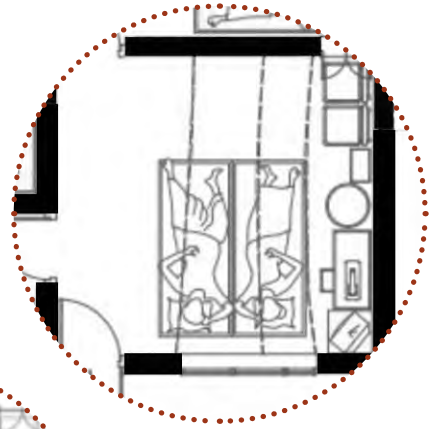


Fig (v) Sleeping

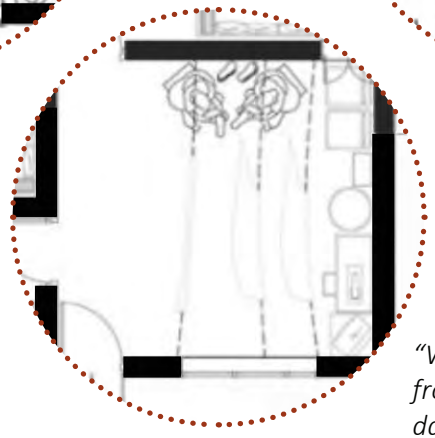


Fig (vi) Working

"I am working in the front room and guests also will be entertained in that room only. So I have to stop my work and engaged with the guests."

"I always work in the front room, whoever is free in the house they join me for the work according to their convenience. We have hanged strings in the front room. So, that we can hang the leather sheets."

"We have enough light in the front room. Inside room is very dark and kitchen is well lit. So, we chose to work in the front room."

(iii), (iv), (v), (vi) Base image floor plan : Dwg.2.2.2.3, Dwg.2.2.2.5, Dwg.2.2.2.6, Dwg.2.2.2.4 respectively from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/

Built form and spatial characteristics

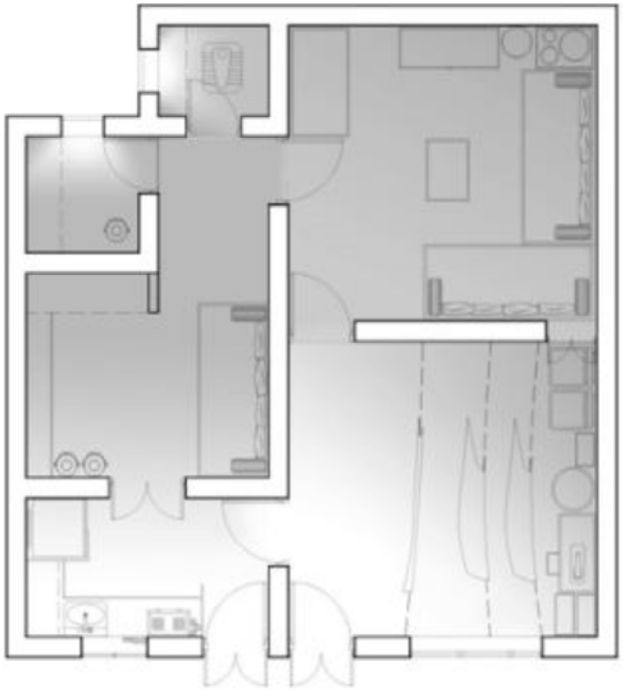
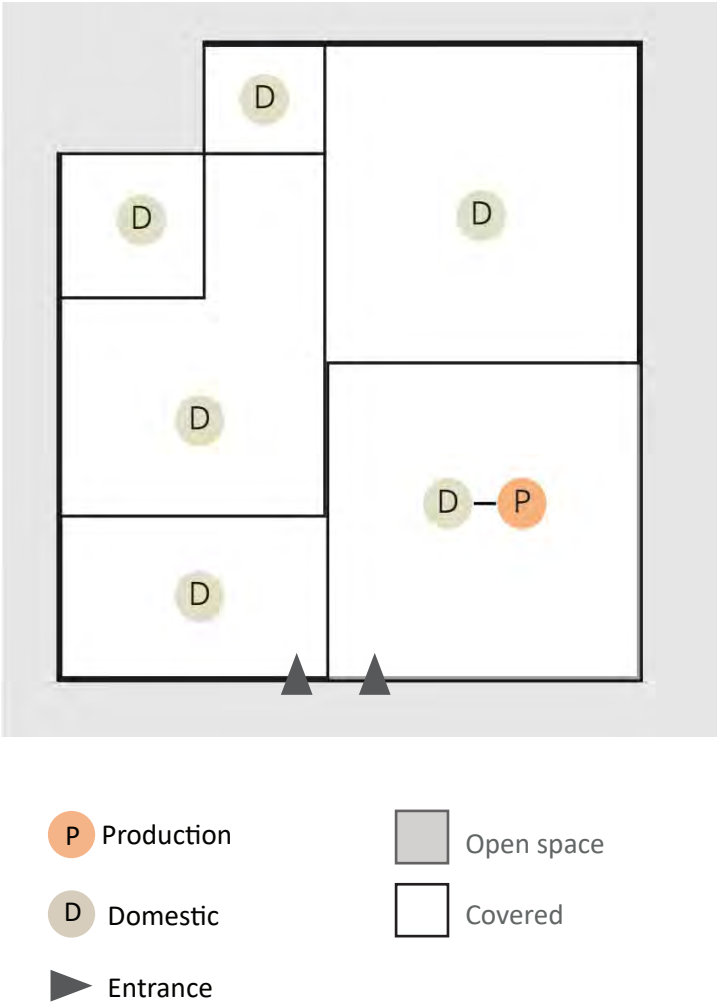


Fig (vii)

"The fornt room is very small for six of us to do most of the activity.The inside room has two single beds. So, living activities can be accommodate. Right side inside room is mainly for men and left inside room is mainly for women. Sometimes house become so mess, and this leather is stink for some time so it is very hard to get things up."

Bharat bhai's unit is one the ground floor of a multi-storey apartment complex. The above image shows the ground floor plan of the house mapping the light and shadows.

Spatial schematic



(vii) Base image floor plan : Dwg.2.2.2.11 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/

CASE SP6 |Bhadja, 2019

Type 1 P

Home + Production

Name : Maheshbhai Sathiya
Location : Nanranpura, Parasnagar Society, Ahmedabad.
Tenure : Owner occupancy
Industry : Flower garland making (Fulhaar)
Type of practice : User Intervention

Activity Mapping

The foyer at the entrance of the work-home is used for domestic and productive activities. The rest of the work-home is mostly used for productive activites. The overall area of the work-home is about 69 sq.m. The working hours are from 7am to 12pm.

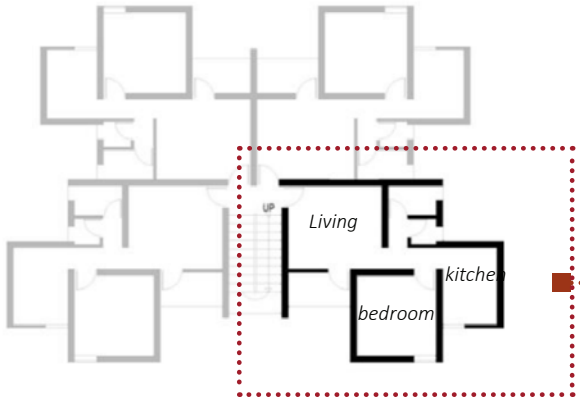
Scale: Building

Fig (i)

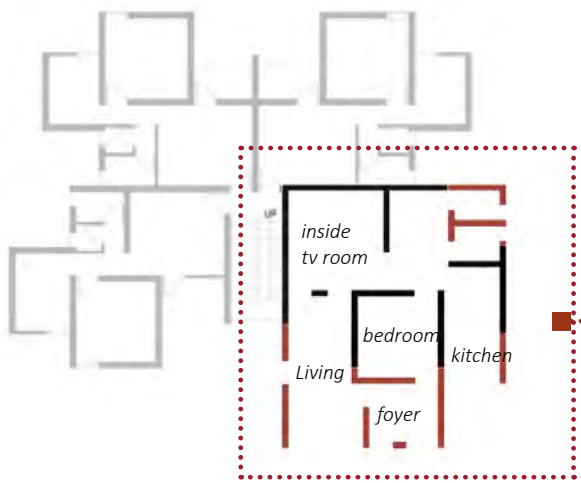
A floor plan mapping the productive activities within Maheshbhai's house.

(i) Base image floor plan : Dwg.2.4.1.3 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/

Scale: Building



Original layout of the apartment.



The unit as expanded and changed by the owner to accomodate productive activities.

Fig (ii)

Ground floor plan of Maheshbhai's work-home mapping the changes that were made.

Scale: Neighbourhood

Physical Infrastructure

Water- Unclear

Sewage-Unclear

Toilet- Toilet indicated in the floor plan.

Electricity- Unclear

Access- Pressent means of access unclear.

(ii) Base image floor plan : Dwg. 2.4.1.2 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/

Information on physical infrastructure and spatial location derived from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/

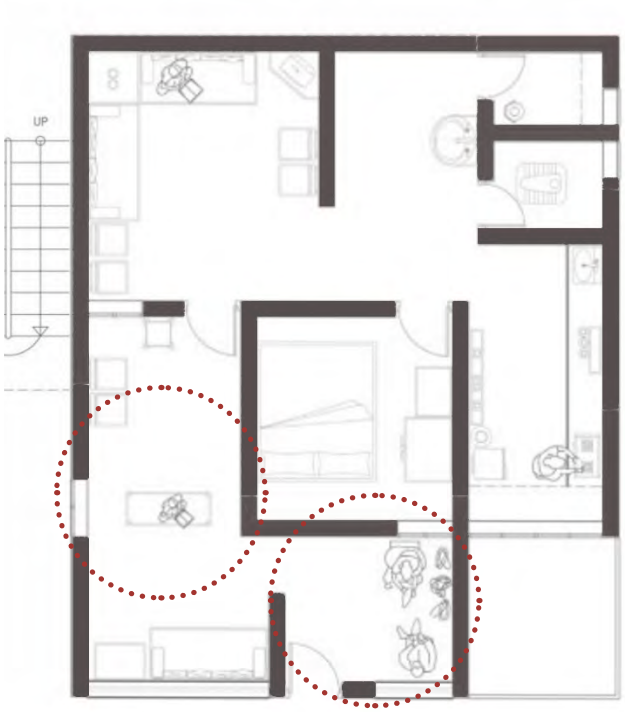


Fig (iii)

The foyer serves as the entrance to the house. It is also used for productive activites of garland-making.

"Me and my mother, work in the foyer. The following space is a formal living room where guests and customers are entertained."

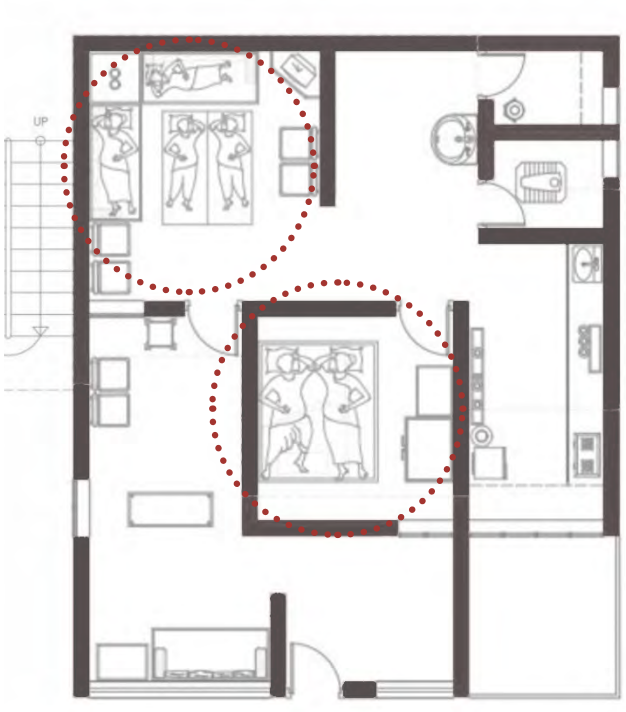


Fig (iv)

"Guests and customers are only welcomed in the entrance foyer and living room, while they are restricted to enter beyond that space."

"I work in the entrance foyer and guests are entertained int he folloeing living space. So, I have to pause my work and engage with the guests."

Fig (v)

The living room is the most used spaced throughout the day. This is where the family eats and sleeps, and is also where is the TV is.

(iii), (iv), (v) Base image floor plan : Dwg. 2.4.1.4, Dwg. 2.4.1.6, Dwg. 2.4.1.5 respectively from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/

Built form and spatial characteristics

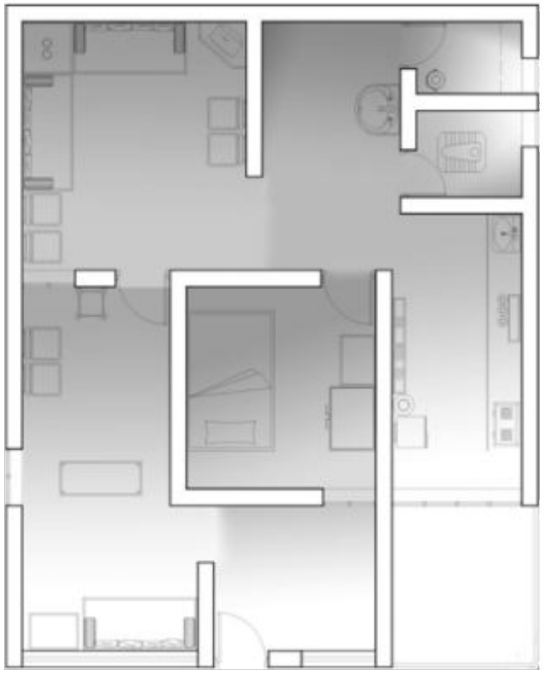
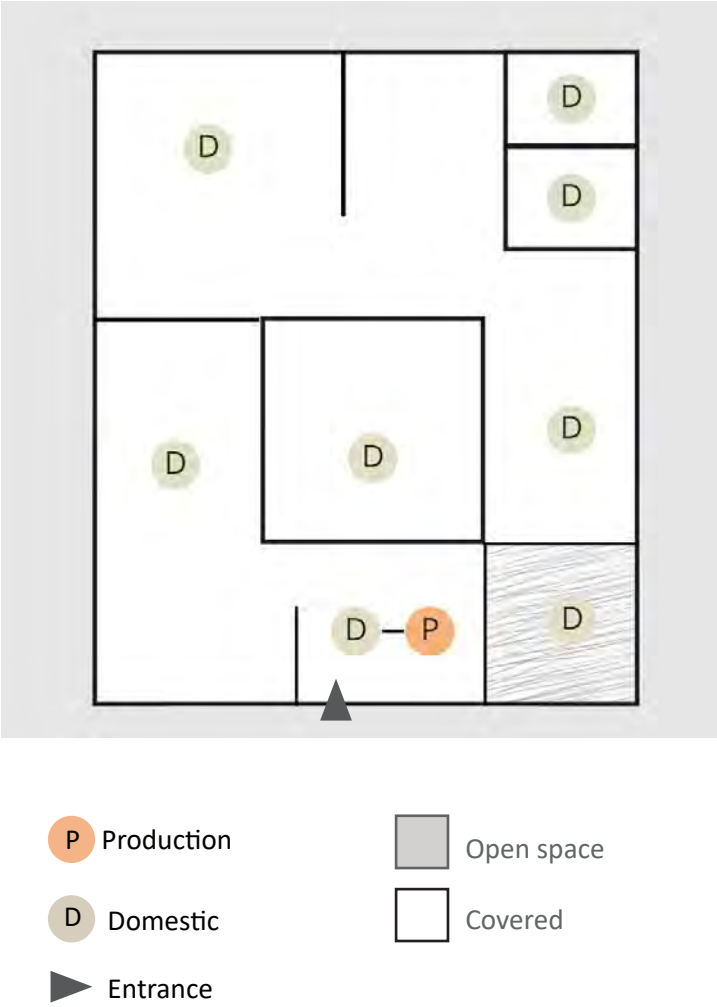


Fig (vi)

"Flower garland making requires constant indirect day light that does not affect the flowers. Hence in our house this light only directs in the entrance foyer only."

Maheshbhai's work-home is on the ground floor of a multi-storey apartment complex. The above image maps lighting in the work-home. The foyer is preferred as workspace because it is the best-lit room of the work-home.

Spatial schematic



(vi) Base image floor plan : Dwg. 2.4.1.11 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/

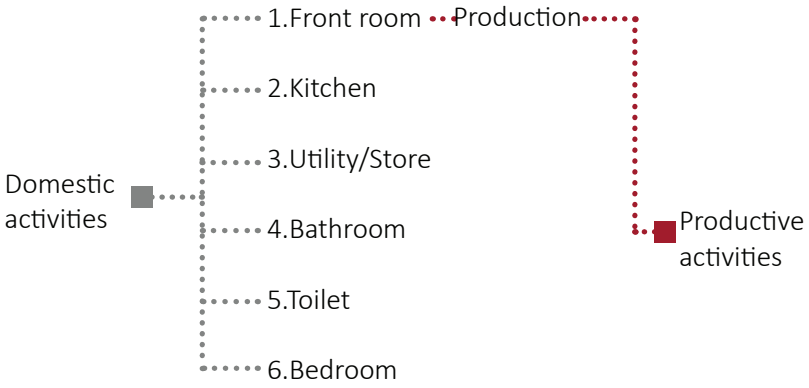
CASE SP7 |Bhadja, 2019

Type 1 P

Home + Production

Name : Vipulbhai Vadodariya
Location : Lakshmi Krupa, Vibhag 1, Ahmedabad.
Tenure : Owner occupancy
Industry : Tea masala and other masala making
Type of practice : User Intervention

Activity Mapping



The front room is used for carrying out productive activities between 2pm and 6pm. This room is also used for other domestic activities by different users of the work-home.

Scale: Building

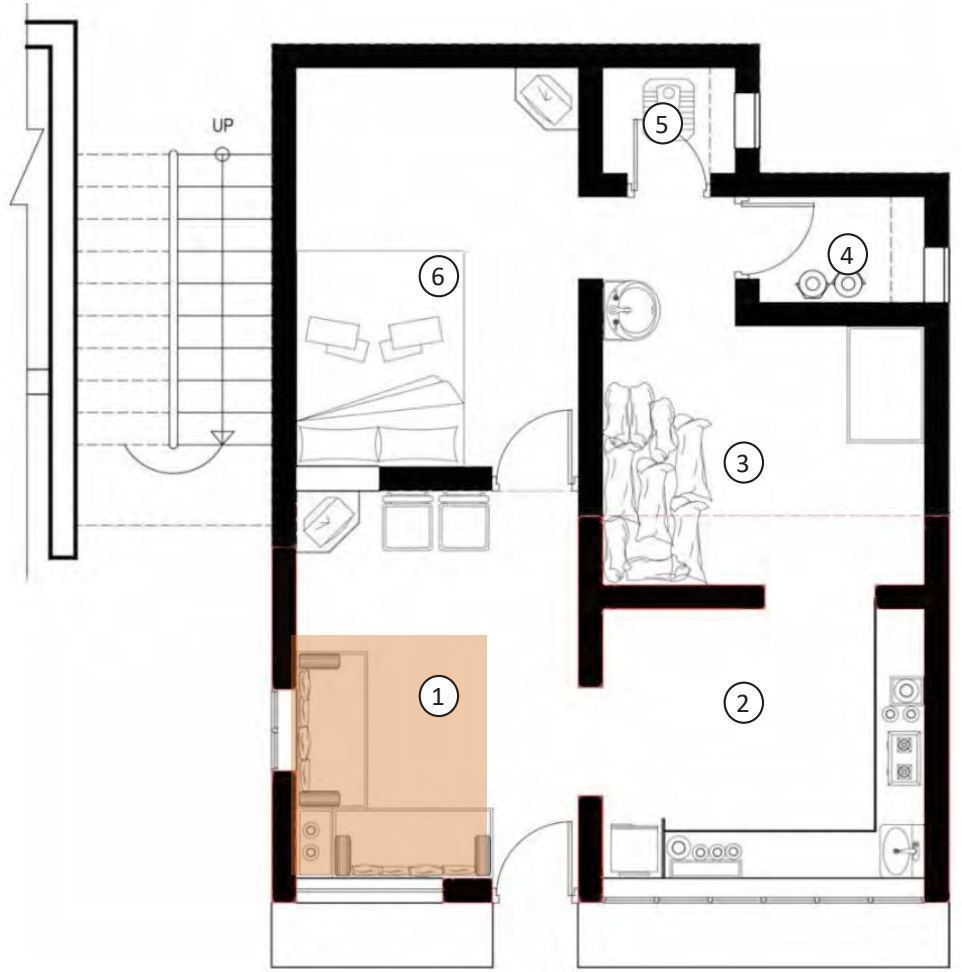
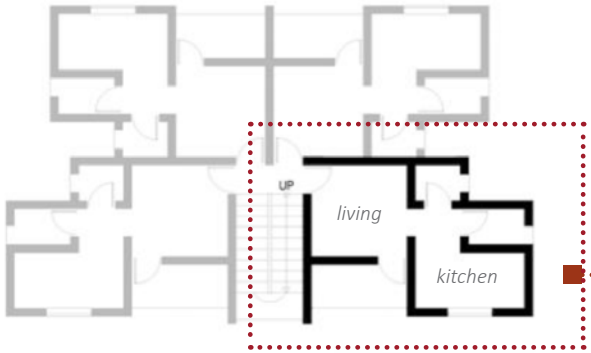


Fig (i)

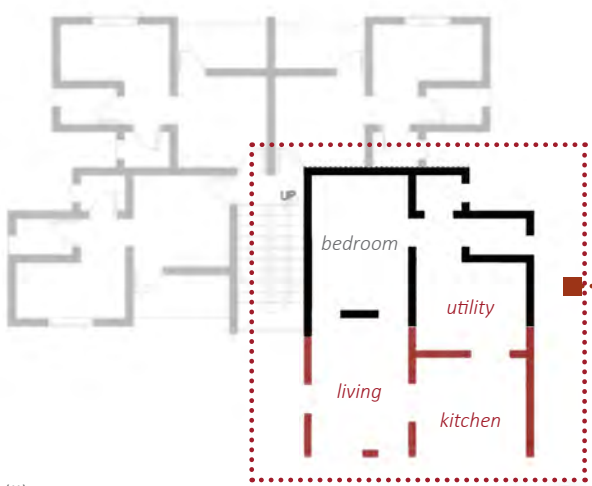
Floor plan mapping productive activities within Vipulbhai's house.

(i) Base image floor plan : Dwg.2.4.3.3 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/

Scale: Building



Original layout of the apartment.



The unit was expanded and changed by the owner to accomodate productive activities.

Fig (ii)

Ground floor plan of Vipulbhai's work-home mapping changes made to original layout.

Scale: Neighbourhood

Physical Infrastructure

Water- Unclear

Sewage-Unclear

Toilet- Toilet indicated in the floor plan.

Electricity-Unclear

Access- Present means of access unclear.

(ii) Base image floor plan : Dwg.2.4.3.2 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/

Information on physical infrastructure and spatial location derived from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/

Built form and spatial characteristics

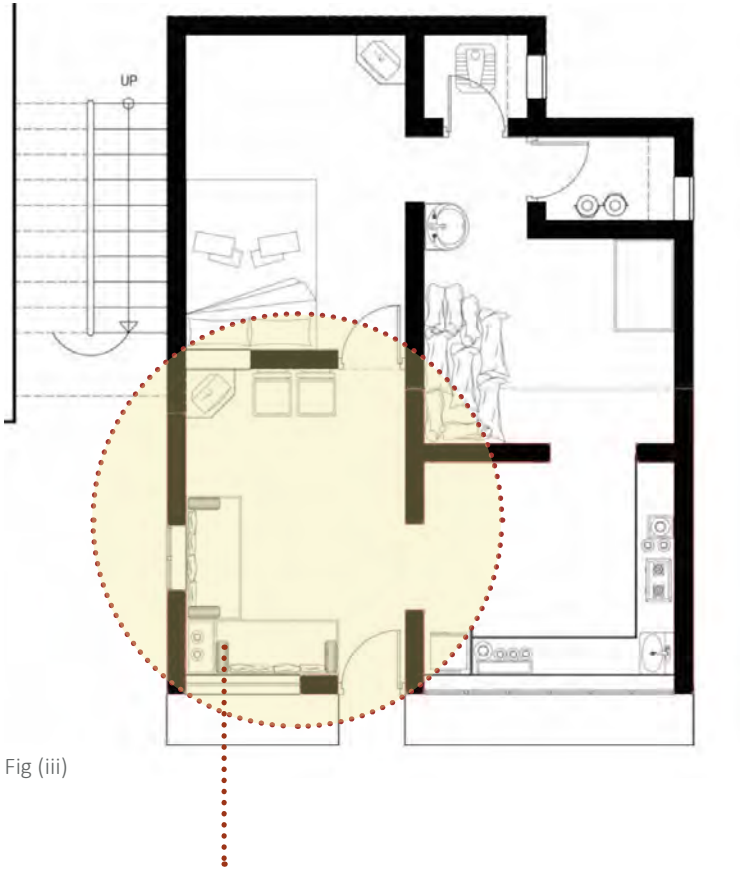


Fig (iii)

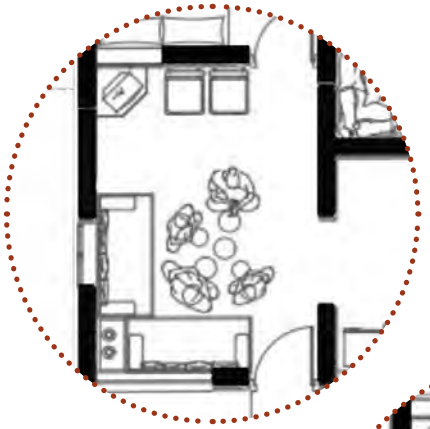


Fig (iv) Eating

Fig (v) Sleeping

Fig (vi) Working

The front room is used as a masala production area by Vipulbhai's wife and as a study space by the children of the family. It is used as sleeping and eating spaces at other times of the day.

"My wife always works in the front room. My daughters watch TV everyday after their school gets over. All the activities are held in the front room only."

"The bed in the front room is used for seating when guests come. My daughters do home work on that bed and my children always sleep there at night."

(iii), (iv), (v), (vi) Base image floor plan : Dwg.2.4.3.3, Dwg.2.4.3.5, Dwg.2.4.3.6, Dwg.2.4.3.4 respectively from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/

Built form and spatial characteristics

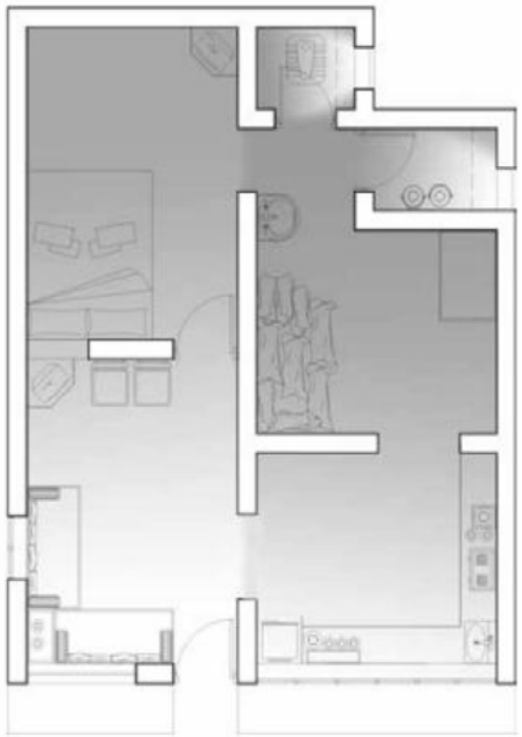
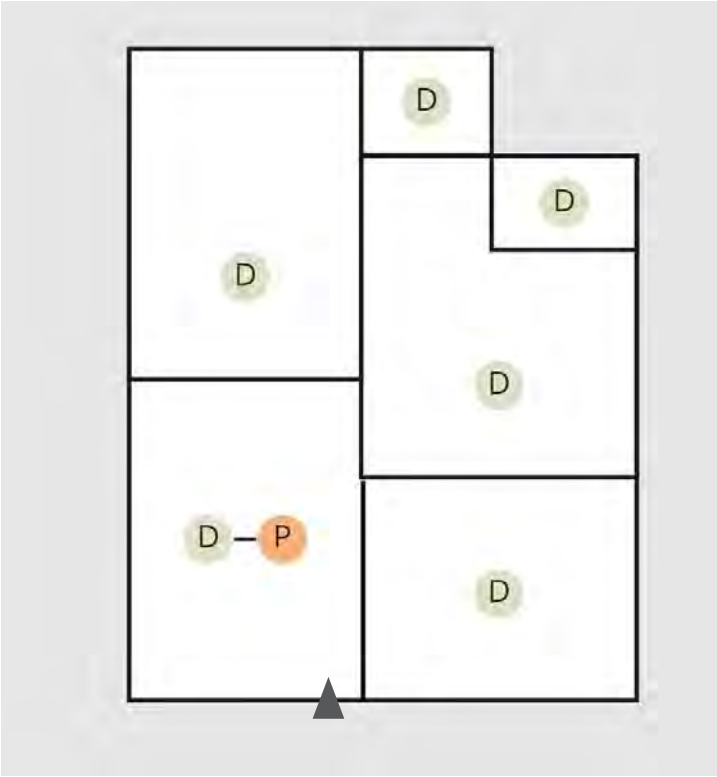


Fig (vii)

Vipulbhai's work-home is on the ground floor of a multi-storey apartment complex. The floor plan above maps lighting conditions.

Spatial schematic



P Production

D Domestic

Entrance

Open space

Covered

(vii) Base image floor plan : Dwg.2.4.3.11 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/

CASE SP8 |Girmay, 2015

Type 1 P

Home + Production

Name : Mrs. Elfinesh Tadesse
Location : Addis-Ketema, Ethiopia
Tenure : Tenancy (kebele* house)
Industry : Traditional clothing cotton preparation
Type of Intervention : User Intervention

Activity Mapping

Domestic activities ■ ·····1. Living room ···· Production ···· ■ Productive activities

Built form and spatial characteristics

The work-home has a single room, and occupies 18.5 sq.m. The furniture within the room is moved around to accomodate the cloth preparation machine. Fig (i) and (ii) show the same corner of the room used for domestic activities such as cooking as well as productive activities such as cloth making.

Mrs. Elfinesh has made an attic as a vertical extension to the house, to accommodate both work and home in the limited space. She also separated the room into sleeping area and a multi-purpose room using a curtain as partition, as can be seen in fig (i).

Fig (i)

Fig (ii)

(i) & (ii) Base Images : from Girmay, A. (2015). *Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full

*'Kebele' means local government. It is forbidden for tenants to undertake any renovation or repair in kebele houses, unless the situation is life threatening (Girmay, 2020).

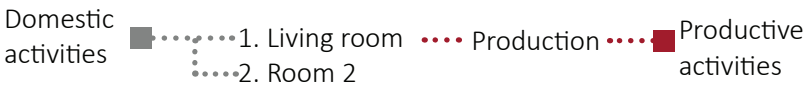
CASE SP9 |Girmay, 2015

Type 1 P

Home + Production

Name : Mrs. Senait Kerissa
Location : Addis-Ketema, Ethiopia
Tenure : Tenancy (kebele* house)
Industry : Traditional clothing cotton preparation
Type of Intervention : User Intervention

Activity Mapping



Built form and spatial characteristics

The work-home has two rooms and measures 20.4 sq.m.The machine is set up in the corner near the entrance of the living room. The furniture around the workspace are used as temporary storae areas for the raw materials. The furniture in the main room has to be covered to protect it from the dust particles from the cotton.

Mrs. Senait cleans the area and sets up the machine on the floor. She says she moves the machine to the sofa when she has to perform domestic actvities. Fig (i),(ii)and (iii) show the same corner of the room used for productive activities.

"Accommodating this job at home is a bit not convenient. I have to clean the house now and then, since the dust particles blowing from the machine are spread all over the living room. However, when I think off the income I gain from this and the feeling of being an employed women makes me compromise to these side effects of this HBE."


Fig (i)


Fig (ii)


Fig (iii)

(i),(ii)& (iii) Base Images : from Girmay, A. (2015). *Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full

*'Kebele' means local government. It is forbidden for tenants to undertake any renovation or repair in kebele houses, unless the situation is life threatening (Girmay, 2020).

CASE SP10 | Girmay, 2015

Type 1 P

Home + Production

Name : Girmanesh Semerga
Location : Addis-Ketema, Ethiopia
Tenure : Tenancy (kebele* house)
Industry : Injera selling
Type of Intervention : User Intervention

Fig (i)

Fig (ii)

Fig (iii)

Built form and spatial characteristics

The work-home measures 22 sq.m. and has two rooms, with a separate kitchen which is used for injera prepration. The work-home quite often gets filled with smoke due to lack of proper ventilation.

Fig(i) shows corner of the living space used by Girmanesh to store the flour and the injera before she sells it to her customers. Fig(ii) shows a view of the adjacent streets where Girmanesh stores the raw material. Fig(iii) shows Girmanesh making injera.

(i),(ii)& (iii) Base Images : from Girmay, A. (2015). *Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full

CASE SP11 | Datta, 2008

Type 1 P

Home + Production

Name : Shanta
Location : Madipur widow colony, West delhi
Tenure : Owner occupancy
Industry : Box making and decoration
Type of Intervention : User Intervention

Built form and spatial characteristics

The work-home is a double storey structure located in the middle of the courtyard module in the colony. Shanta's son demolished and reconstructed the house expaning vertically and covering the front and back porches. Shanta uses the park and courtyard adjacent to her work-home as 'extensions to domestic realm'.

Shanta leverages the good relations she has with her neighbours to engage them in the box producing business her son has, seasonal as it may be. The additional labour from her neighbours enables her to make good profit while delivering large orders on time. She stores these boxes in her sister's unoccupied house next door.

Fig(i) shows the the courtyard module where Shanta's work-home is located.

Spatial schematic

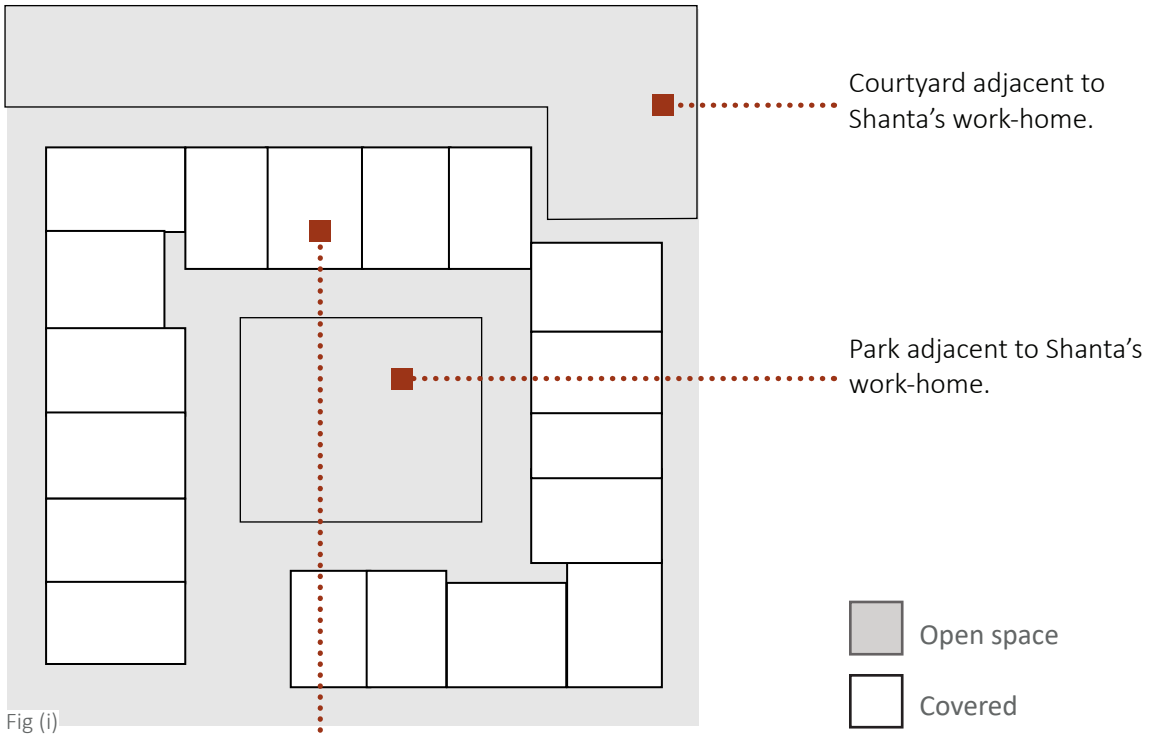


Fig (i)

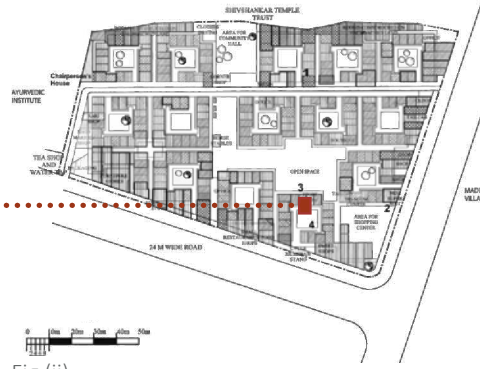


Fig (ii)

(i), (ii) Base images : from Datta, A. (2008). Architecture of low-income widow housing: "spatial opportunities" in Madipur, West Delhi. *Cultural Geographies, 15*(2), 231–253.

CASE SP12 |Herlekar et al., 2021

Type 1 P

Home + Production

Name : Meenaben Soni
Location : Vishwas Nagar, Ahmedabad
Tenure : Owner occupancy
Industry : Tailoring dresses and bags
Type of Intervention : User intervention + intervention by MHT.

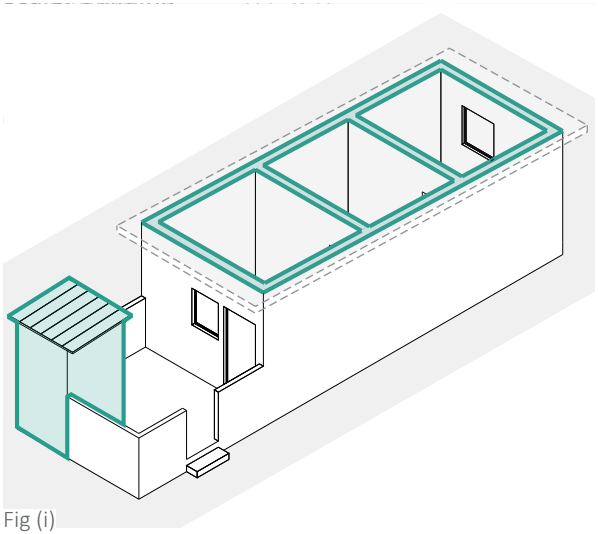


Fig (i)

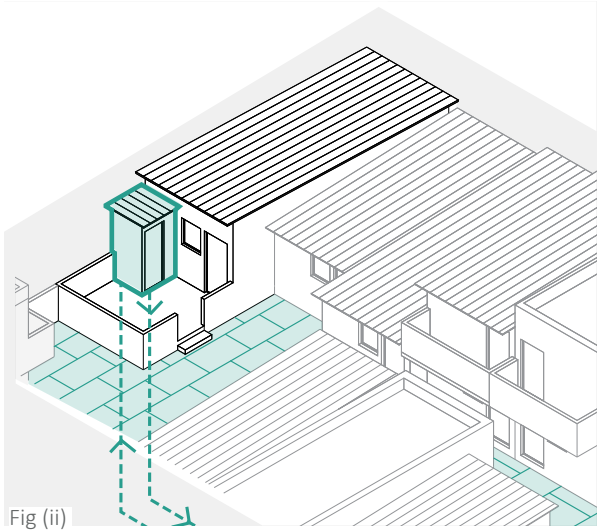


Fig (ii)

Built form and spatial characteristics

Meenaben purchased her one room semi-pucca house in 1997.

In 2003 she renovated and expanded her work-home adding a living room, kitchen, storeroom (specifically for work) and toilet with an an underground water tank, shown in fig (i)

.

In 2007, with MHT support she reconstructed the toilet and also got access to water and drainage connection under the Slum Networking Program, as shown in fig (ii).

In 2012 she installed Modroof on her unit with MHT support, and in 2019 installed solar panels and improved on her Modroof, illustrated in figures (iii) and (iv) respectively.

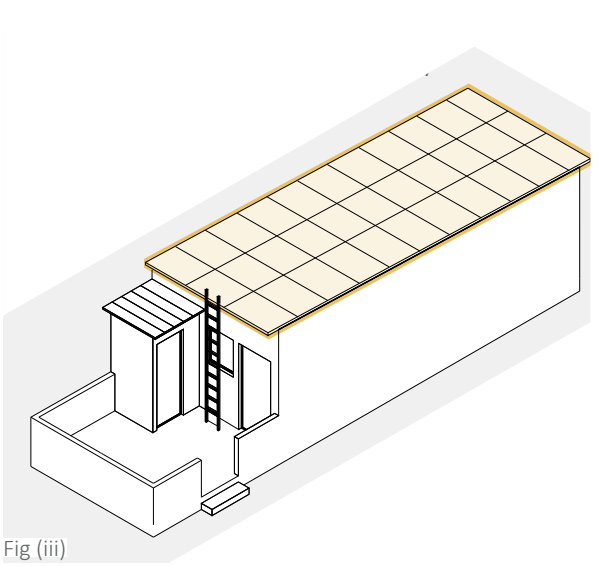


Fig (iii)

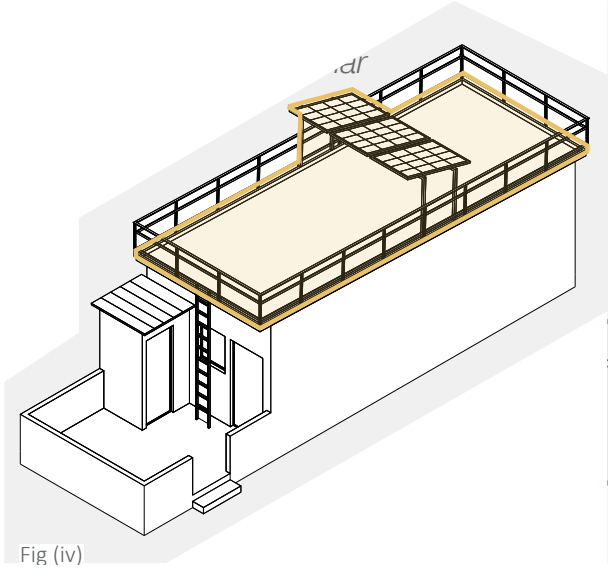


Fig (iv)

(i), (ii), (iii), (iv) images : from Herlekar, V., Lashkari, T., & Devanarayanan, A. (2021). M*aking home-based work environments safer, healthier and productive: Case Study (1).* Brief No. CS1. WIEGO

CASE SP13 | KRVIA, 2016

Type 1 P

Home + Production

Name : Ganagubhai's home
Location : Dharavi, Maharashtra
Tenure : Owner occupancy
Industry : Broom making
Type of Intervention : User Intervention

Activity Mapping

Boom making is carried out in the front room which is also used as an eating space.

Scale: Building

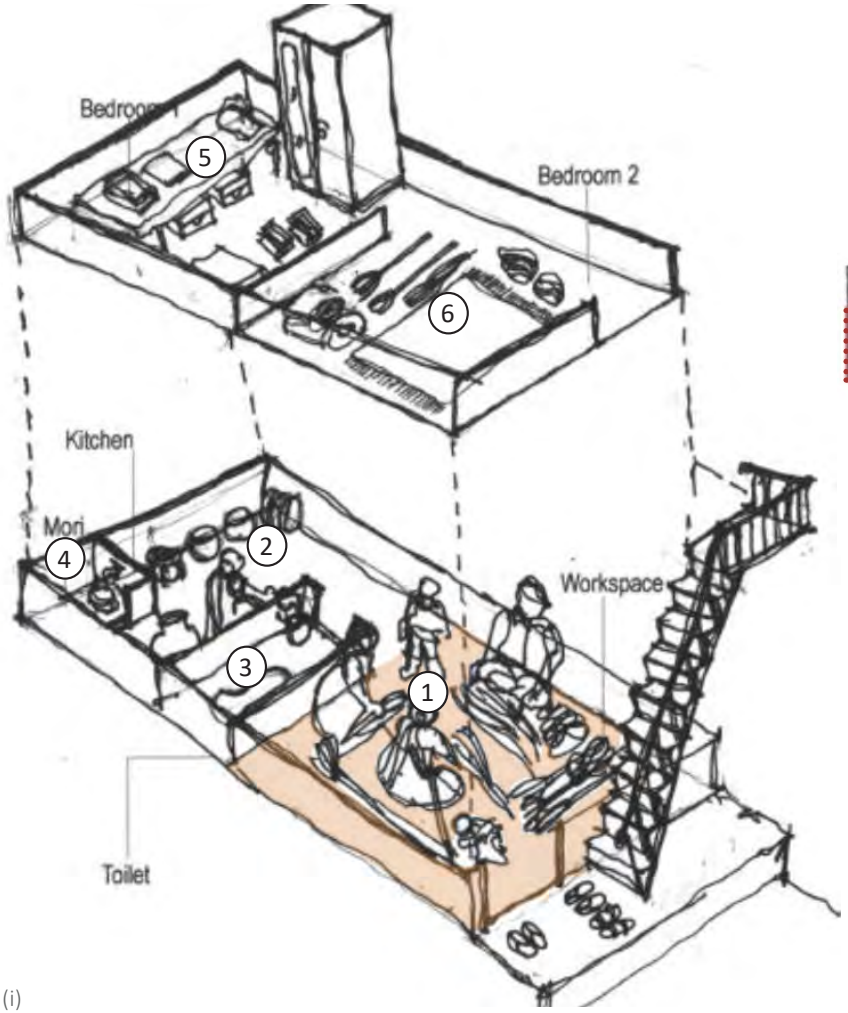


Fig (i)

Fig (ii)

A view mapping productive activities within Gangubhai's work-home with a key-plan (ii).

(i), (ii) Base layer images : from KRVIA. (2016). *The Atlas of Mapping Methods* [Book accompannying disc exhibit]. Exhibited at Turning Tables, Venice 2016.

Single activity work-homes:

Retail (SR)

CASE SR1 | CRIT, 2011

Type 1 R

Home + Retail

Name : Imran's house
Location : Shivaji nagar, Mumbai
Tenure : Owner occupancy
Industry : General store
Type of practice : User Intervention

Activity Mapping

There are two separate entrances, one to the shop, and the other to the living and rented spaces of the work-home. Thus, the spatial configuration of the work-home ensures minimal overlap between the domestic and productive spheres.

Scale: Building

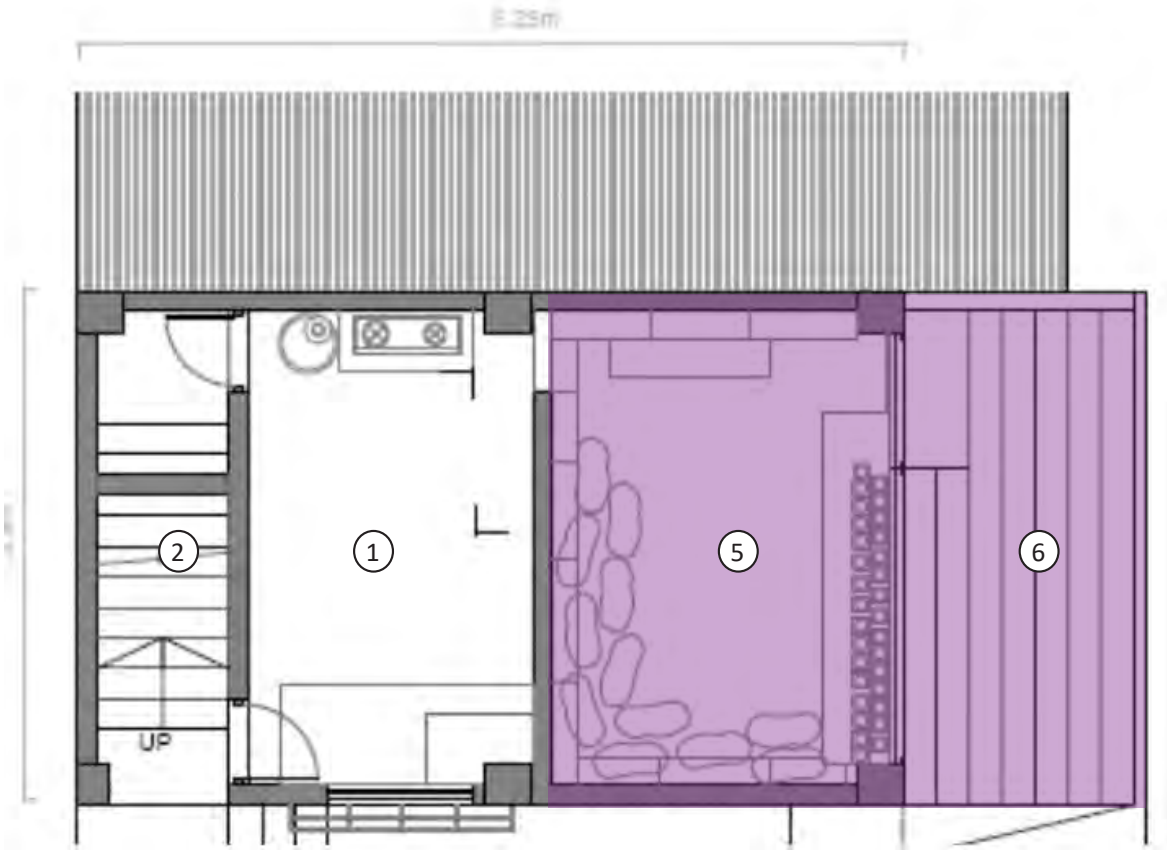
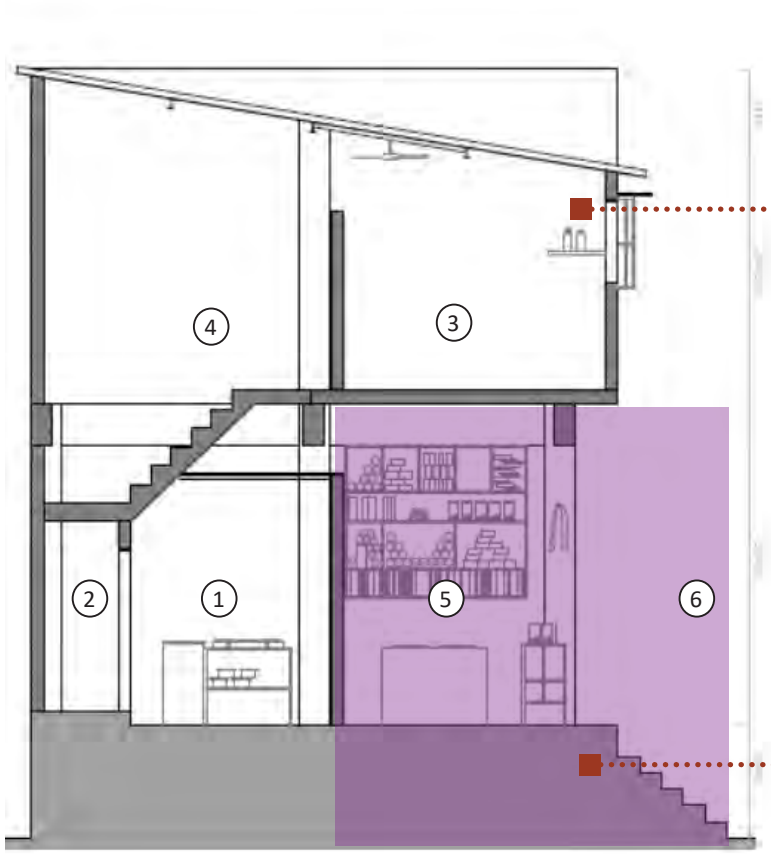


Fig (i)

A plan mapping productive activities in Imran's work-home.

(i) Base image floor plan : 2.8, image B from CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis. W*orld Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf

Scale: Building



The top floor of the building has been rented out to four people, and has another toilet.

1.4m raised plinth to protect the structure from flooding.

Fig (ii)

A section mapping productive activities in Imran's work-home.

Scale: Neighbourhood

Physical Infrastructure

Water- Unclear.

Sewage- Unclear.

Toilet- The house has two toilets and one bathroom.

Electricity- Unclear.

Access- Present means of access unclear.

(ii) Base image floor plan : 2.8. image C from CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis. W*orld Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf

Information on physical infrastructure and spatial location derived from CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis. W*orld Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf

Built form and spatial characteristics

Fig (iii)

The raised plinth made with wet materials to protect from flooding in monsoons.

Shop front has a roof extension made with steel sections for shade and protection from rain.

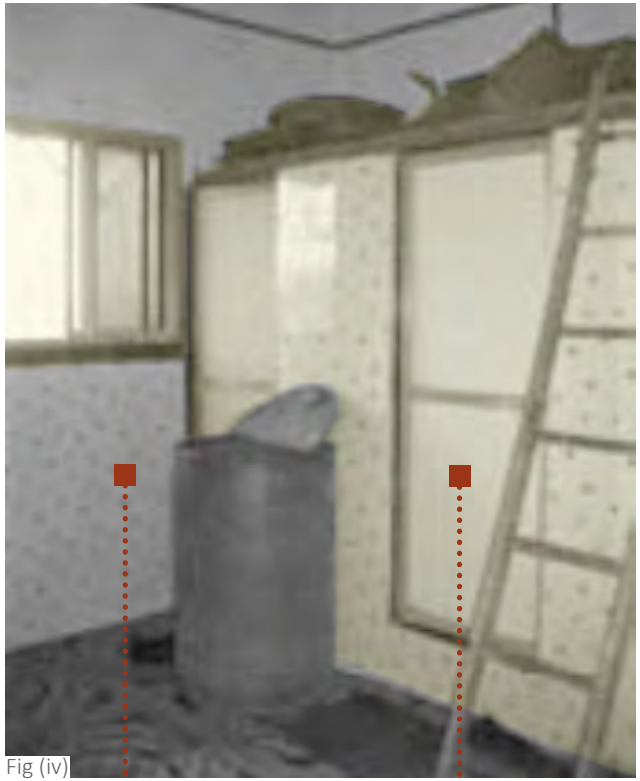


Fig (iv)

The walls are made with bricks with RCC beams supporting the framework.

Bathroom and toilet with with a loft space above for storage.

Fig (v)

Tin sheets used for roofing used at the top floor.

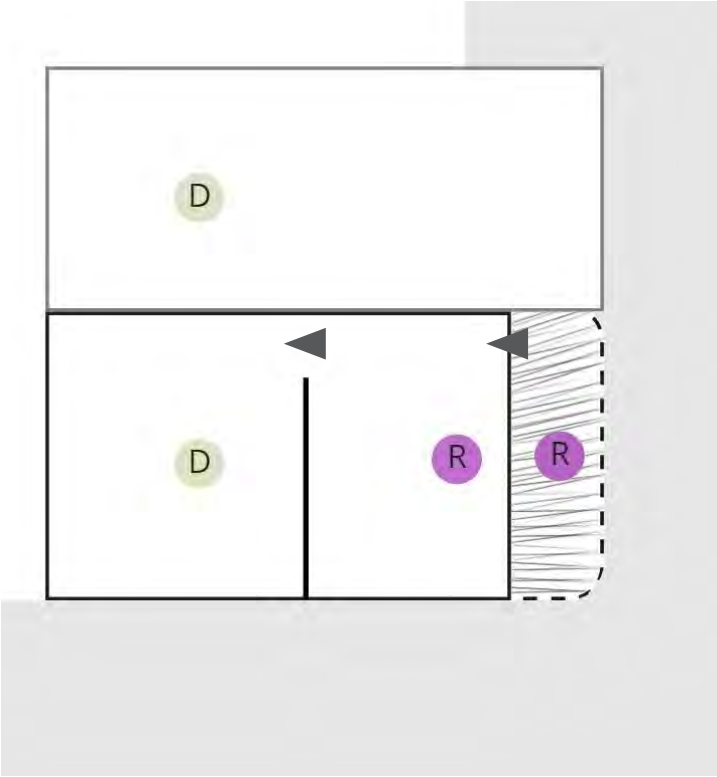
Aluminum frame sliding windows with grill outside.

(iii), (iv), (v) Base images : 2.8. image A, image B, image B respectively from CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis. W*orld Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf

Built form and spatial characteristics

Fig (vi)

Spatial schematic



The neighborhood has a mix of structures built of consolidated wet construction material to recently built dry construction.

(vi) Base image : 1.8. image B from CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis. W*orld Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf

CASE SR2 | Tanaka et al., 2018

Type 1 R

Home + Retail

Name : Unit F, Tung Song Hong (TSH) Core Housing
Location : Bangkok, Thailand
Tenure : Unclear
Industry : Shop
Type of practice : User intervention on intervention by other actors, viz. structures constructed on partial plots.

Activity Mapping

In this project the National Housing Authority (NHA) constructed cores of different kinds to facilitating incremental self-built housing. In this example, the houshold expanded on an R1 type of core. The activities within the shop seem to mostly remain separated from the rest of the work-home. However, the productive and domestic spaces share a common entrance.

Scale: Building

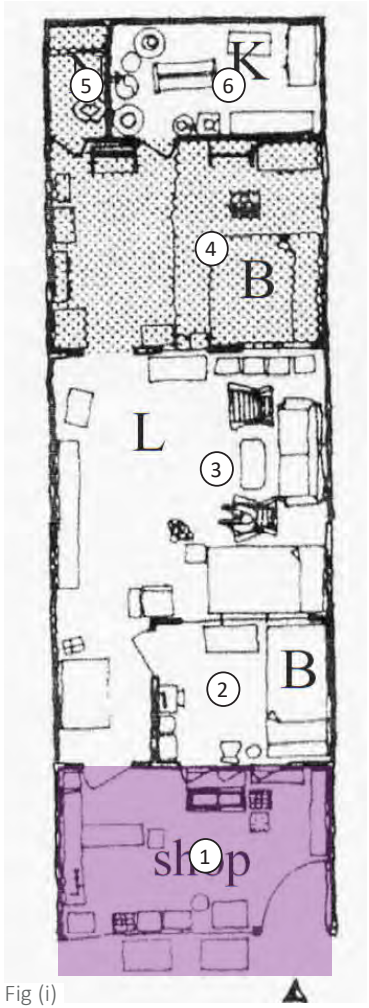


Fig (i)

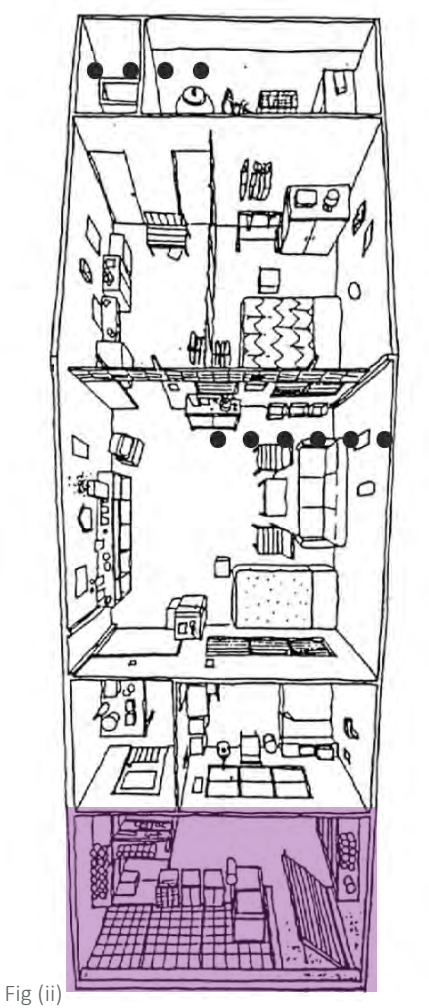


Fig (ii)

The hatched part denotes the original 'core' structure as built by NHA, in 1984. The kitchen was added by users.

A multipurpose room added in 1993 to get better space and access to the adjacent bedroom.

Extended for commercial use in 1994.

A plan mapping the productive activities in type F work-home in Tung Song Hong (TSH) Core Housing settlement.

(i), (ii) Base images : Fig 11, Fig 10 from Tanaka, M., Kikuchi, Y., Akazawa, A., Funo, S. & Kobayashi, M. (2003). Spatial Characteristics of Core Housing Units Brought by Residents' Extension Activities at Tung Song Hong Settlements in Thailand. *Journal of Asian Architecture and Building Engineering, 2*(2),123-130.

Scale: Settlement

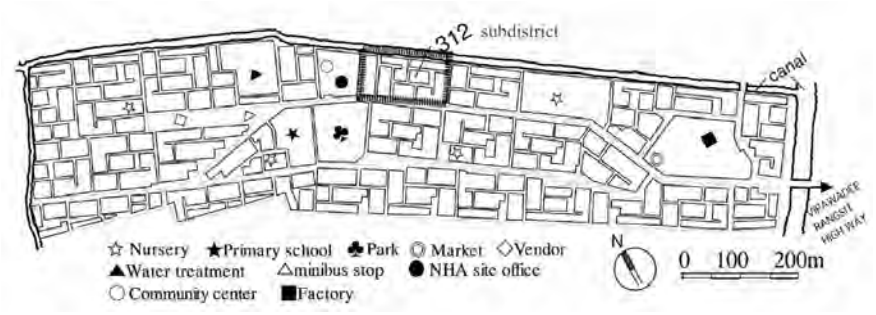


Fig (iii)

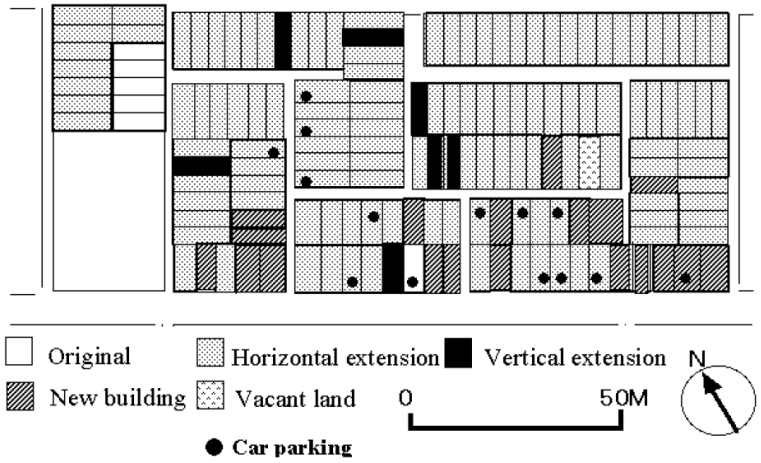


Fig (iv)

Fig (iii) shows the original layout of Tung Song Hong (TSH) Core Housing settlement.
Fig (iv) shows different types of extentions to houses in the settlement as of 2002.

Physical Infrastructure

Water- Unclear

Sewage-Unclear

Toilet- Available in all the units through the settlement.

Electricity- Unclear.

Access- Narrow roads.

(iii), (iv) Base images : Fig 2, Fig 7 respectively from Tanaka, M., Kikuchi, Y., Akazawa, A., Funo, S. & Kobayashi, M. (2003). Spatial Characteristics of Core Housing Units Brought by Residents' Extension Activities at Tung Song Hong Settlements in Thailand. *Journal of Asian Architecture and Building Engineering, 2*(2),123-130.

Information on physical infrastructure derived from Tanaka, M., Kikuchi, Y., Akazawa, A., Funo, S. & Kobayashi, M. (2003). Spatial Characteristics of Core Housing Units Brought by Residents' Extension Activities at Tung Song Hong Settlements in Thailand. *Journal of Asian Architecture and Building Engineering, 2*(2),123-130.

Built form and spatial characteristics

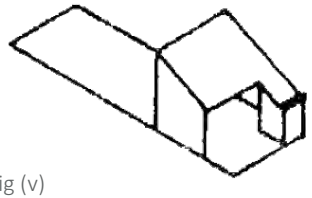


Fig (v)

Unit F is of R1 type module core housing.

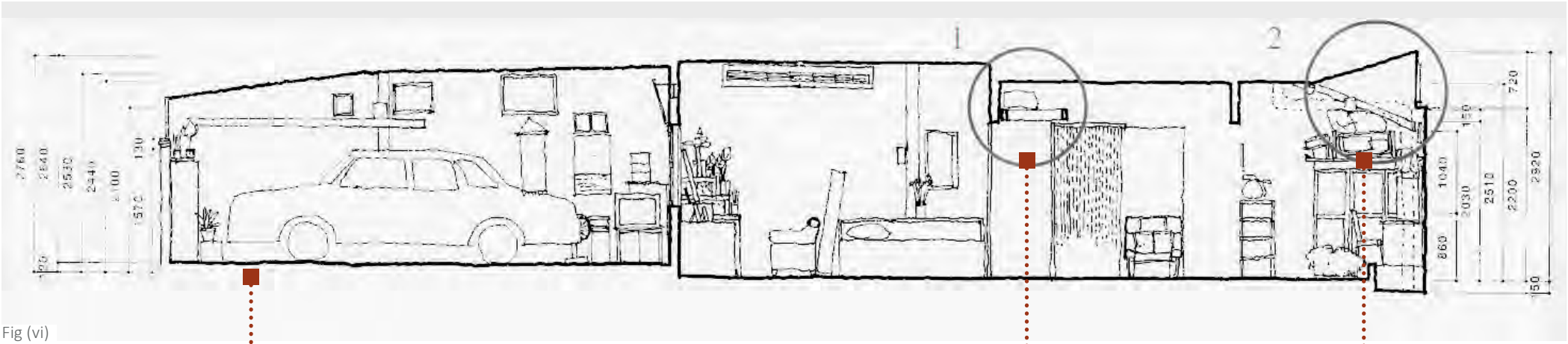


Fig (vi)

Fig (vi) shows a typical R1 type module without the shop extension.

The project provided a steel beam at 2.2 meters from the ground for possible extention of a loft space.

Users typically place windows at a higher position for better lighting and ventilation.

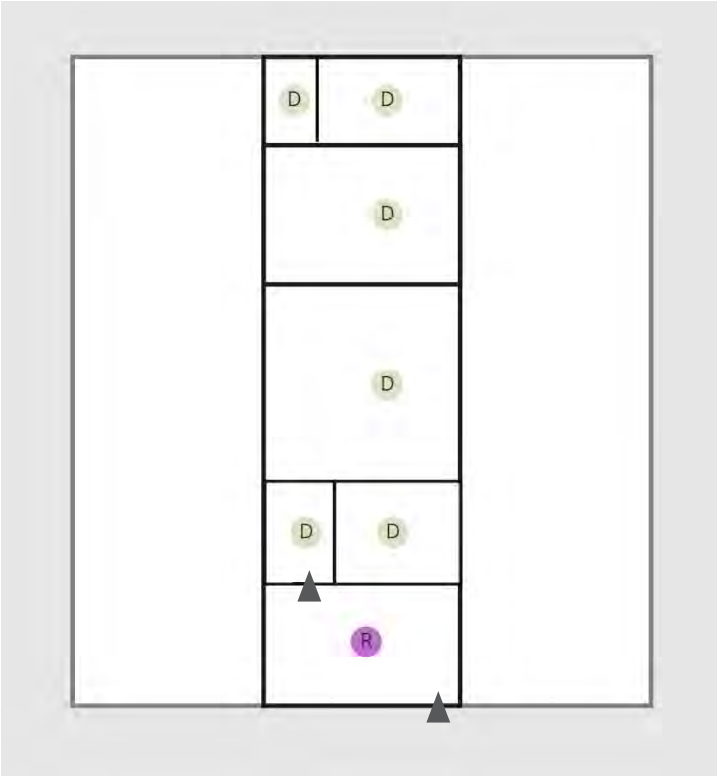
(v), (vi) Base images : Fig 1, Fig 3 respectively from Tanaka, M., Kikuchi, Y., Akazawa, A., Funo, S. & Kobayashi, M. (2003). Spatial Characteristics of Core Housing Units Brought by Residents' Extension Activities at Tung Song Hong Settlements in Thailand. *Journal of Asian Architecture and Building Engineering, 2*(2),123-130.

Built form and spatial characteristics

Fig (vii)

Prefabricated load bearing wall was used in the core structure.

Spatial schematic



R Retail

D Domestic

Entrance

open space

Covered

(vii) Base image : Fig 9 from Tanaka, M., Kikuchi, Y., Akazawa, A., Funo, S. & Kobayashi, M. (2003). Spatial Characteristics of Core Housing Units Brought by Residents' Extension Activities at Tung Song Hong Settlements in Thailand. *Journal of Asian Architecture and Building Engineering, 2*(2),123-130.

CASE SR3 | Herlekar et al., 2021

Type 1 R

Home + Retail

Name : PPP housing
Location : Laxmi Nagar, Ahmedabad
Type of Intervention : Intervention by MHT-PPP housing

Built form and spatial characteristics

MHT was community partner in multiple Public-Private Partnership (PPP) redevelopment projects in Ahmedabad executed under the Gujrat Slum Rehabilitation policy. MHT introduced design reforms and changes to the schemes to make the housing units more amenable to being used as work-homes.

The minimum carpet area of the unit was increased from 25 sq.m. Fig (i) illustrates a unit with carpet area between 30 and 35 sq.m.

It also recommended that ground floor of the housing complex be used by residents to run commercial eastablishments, as illustrated in fig (ii).

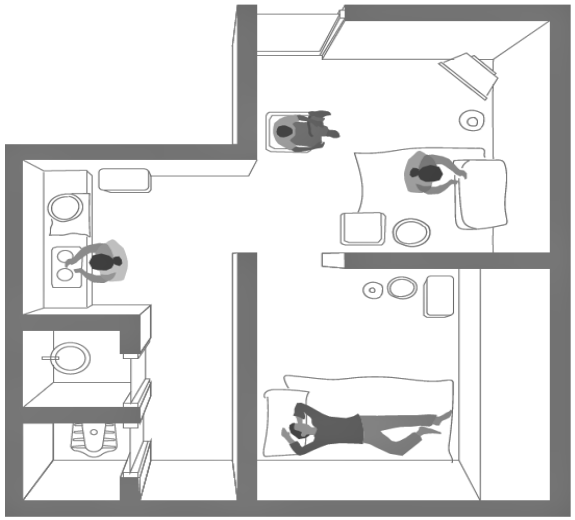


Fig (i)

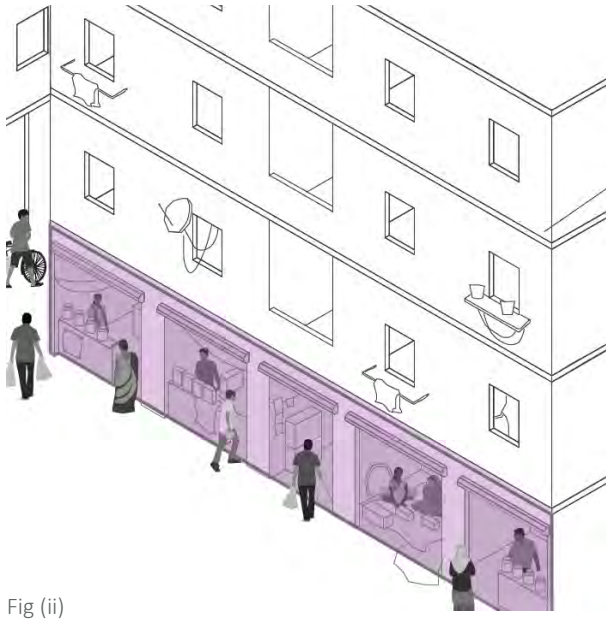


Fig (ii)

(i), (ii) Base images : Box 1 from Herlekar, V., Lashkari, T., & Devanarayanan, A. (2021). *Making home-based work environments safer, healthier and productive: Incorporating needs of home-based workers in city plans and policies (1).* Brief No. CP1. WIEGO

CASE SR4 | Datta, 2008

Type 1 R

Home + Retail

Name : Anita
Location : Madipur widow colony, West Delhi
Tenure : Owner occupancy
Industry : Grocery shop
Type of Intervention : User Intervention

Built form and spatial characteristics

Anita's work-home consists of a double storey structure with four rooms and two wide balconies facing the road. Anita and family have extended space adjacent to the unit and the work-home is double the size of the orignal structure which was a single room. Initially Anita sold small items at her shop. The oppurtune location of her work-home on the main road allowed her business to grow. She eventually expanded the front room from where the shop was run and converted it into a grocery. Her customers come from within and outside the settlement.

Fig(i) shows a view of Anita's store from the main road.

Fig (i)

Anita's unit within the settlement.

(i), (ii) Base images : Fig 7, Fig 5 respectively from Datta, A. (2008). *Architecture of low-income widow housing: "spatial opportunities" in Madipur, West Delhi. Cultural Geographies, 15*(2), 231–253.

CASE SR5 | Girmay, 2015

Type 1 R

Home + Retail

Name : Semira Ahmed
Location : Addis-Ketema, Ethiopia
Tenure : Tenancy
Industry : Vegetable selling
Type of Intervention : User Intervention

Built form and spatial characteristics

The work-home measures 29 sq.m. and has two rooms. Semira has made a small storage area with temporary materials adjacent to the work-home to store the goods she sells.Semira also uses some space adjacent to the work-home (as shown in fig ii) to carry out washing related to both domestic and productive activities.

Figs (i),(ii)and(iii) show different views of the space outside Semira's work-home.


Fig (i)


Fig (ii)


Fig (iii)

(i), (ii), (iii) Base images : from Girmay, A. (2015). *Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full

CASE SR6 Tanaka et al., 2018

Type 1 R

Home + Retail

Name : Unit E
Location : Tung Song Hong Settlements, Thailand
Tenure : Unclear
Industry : Shop
Type of Intervention : User intervention on intervention by other actors, viz. structures constructed on partial plots.

Activity Mapping

In this project the National Housing Authority (NHA) constructed cores of different kinds to facilitating incremental self-built housing. In this example, the houshold expanded on an R5 type of core. The activities within the shop seem to mostly remain separated from the rest of the work-home. However, the productive and domestic spaces share a common entrance.

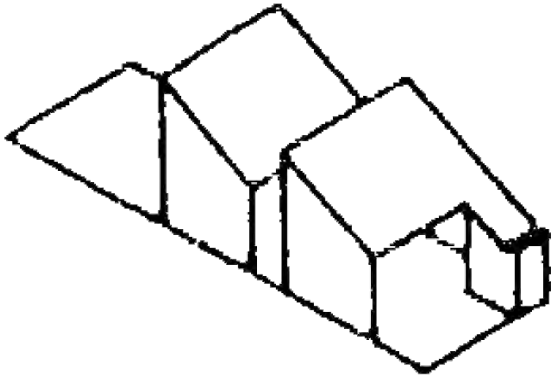


Fig (i)

The R5 type module of core housing with double sloped roof that has been used for unit E. The hatched part in fig (ii) denotes the core as constructed by NHA.

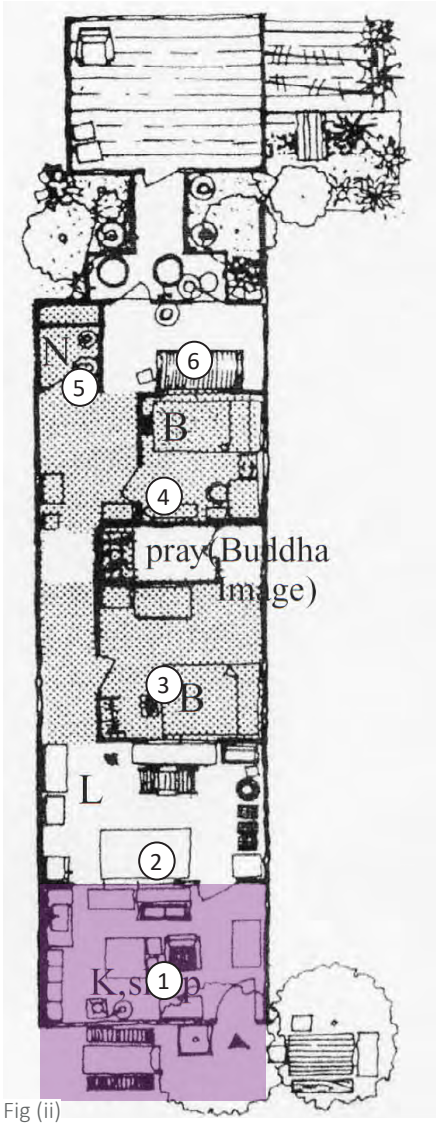


Fig (ii)

(i), (ii) Base images : Fig 11, Fig 3 respectively from Tanaka, M., Kikuchi, Y., Akazawa, A., Funo, S. & Kobayashi, M. (2003). Spatial Characteristics of Core Housing Units Brought by Residents' Extension Activities at Tung Song Hong Settlements in Thailand. *Journal of Asian Architecture and Building Engineering, 2*(2),123-130.

Single activity work-homes:

Service (SS)

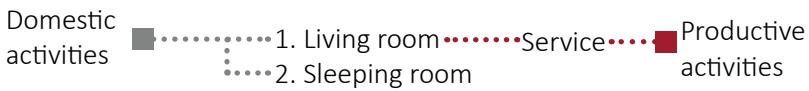
CASE SS1 |Girmay, 2015

Type 1 S

Home + Service

Name : Mrs Hiwot Zerihun's house
Location : Addis-Ketema, Ethiopia
Tenure : Unclear
Industry : Tailoring
Type of practice : User Intervention

Activity Mapping



Mrs Hiwot operates her tailoring service from the corner of the room where she has placed her tailoring machine and a chair. She has had to close up one of the doors of the work-home to prevent being disturbed. When there is too much work, she also uses the sleeping room to store the clothes she has sewed. The work-home has two rooms and measures 62.5 sq.m.

Scale: Building

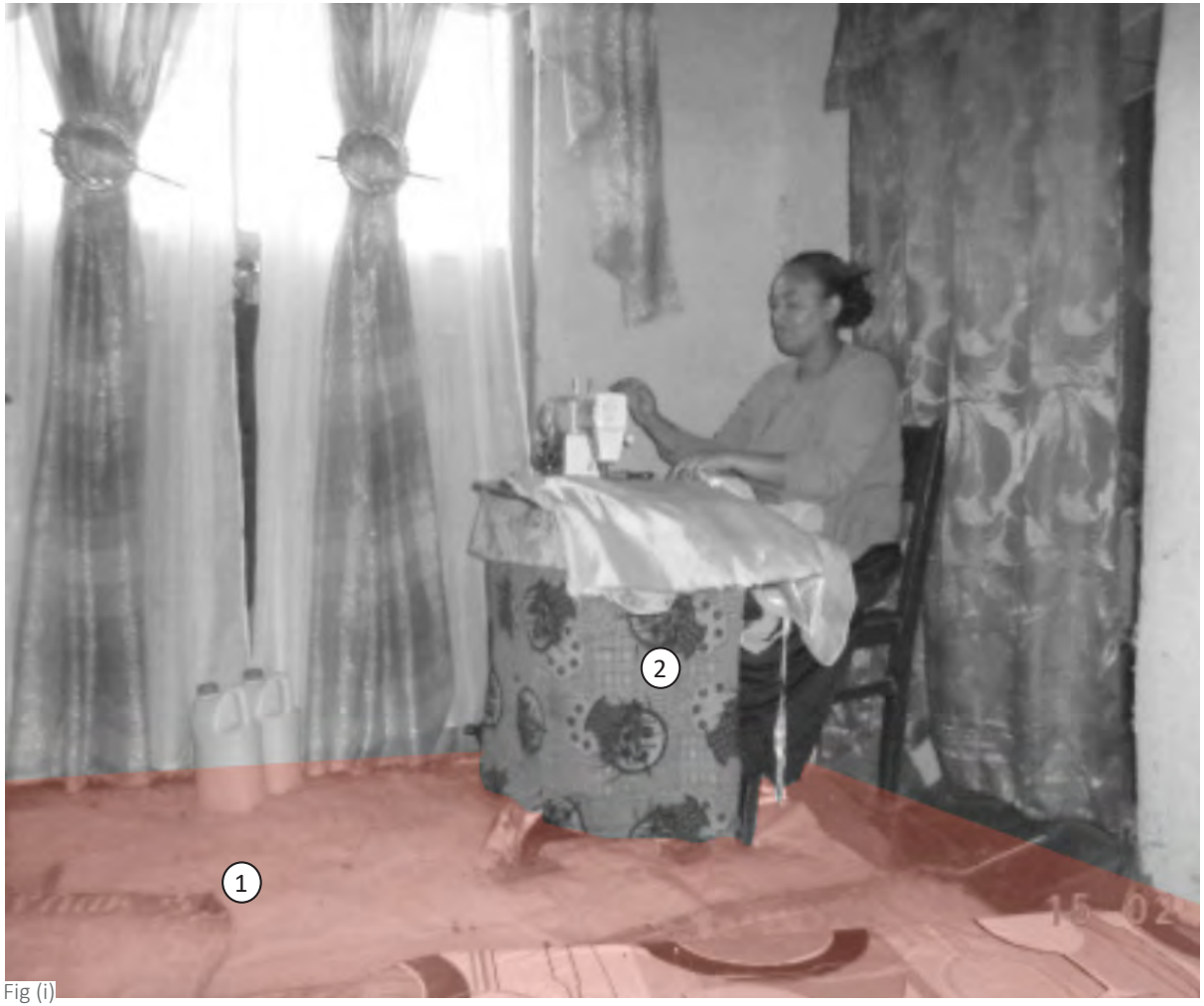


Fig (i)

A view mapping the productive activities in Mrs Hiwot's work-home.

(i) Base image layer : from Girmay, A. (2015). *Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full

Scale: Building

Fig (ii)

A view of the internal streets near Mrs Hiwot's work-home.

Physical Infrastructure

- Water- Unclear
- Sewage- Unclear
- Toilet- Unclear
- Electricity- Unclear
- Access- Unclear

(i) Base image layer : from Girmay, A. (2015). *Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full

Information on physical infrastructure derived from Girmay, A. (2015). *Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full

Built form and spatial characteristics

Fig (iii)

Space under the dining table used to store clothes and sheets for sewing.

"I do this work in the main living room and I dedicated some corner of the dwelling for this purpose. Most of the work is done here, however I also use the bedroom as a store to put some staff I use for this work. Besides when there is too much work, I use the bed as working space to put the clothes I sew."

"One of the challenges I face doing this home-based work (tailoring) is collecting the left over piece of clothes. Whenever I have too much work to do, at the same time it increase the left over pieces. Hence, this creates a messy environment."

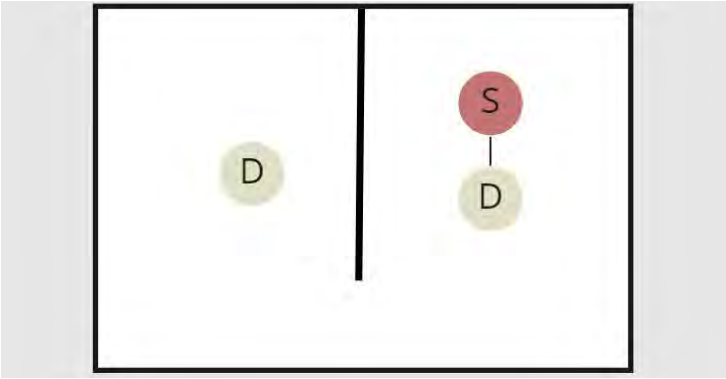
(iii) Base image layer : from Girmay, A. (2015). *Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full

Built form and spatial characteristics

Fig (iv)

Courtyard of work-home
used for domestic activity.

Spatial Schematic



S Service

D Domestic

open space

Covered

(iv) Base image layer : from Girmay, A. (2015). *Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full

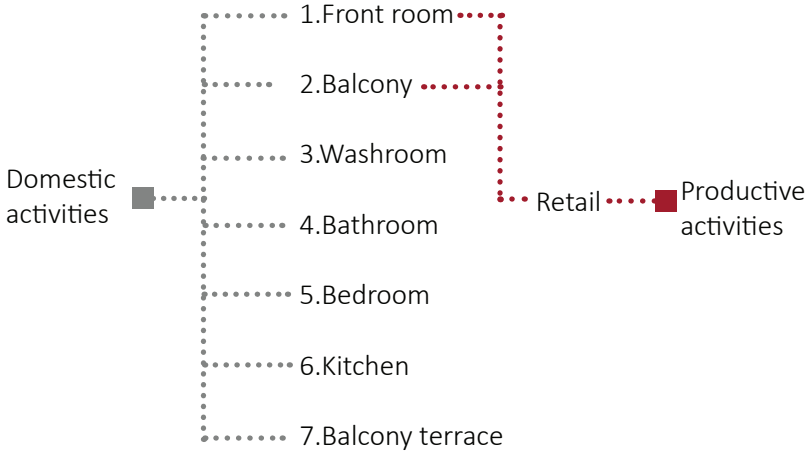
CASE SS2 |Bhadja, 2019

Type 1 S

Home + Service

Name : Shefaliben Harpanchal
Location : Amee Apartments, Memnagar, Ahmedabad.
Tenure : Owner occupancy
Industry : Beauty parlour
Type of practice : User Intervention

Activity Mapping



The parlour space runs from 11am to 7pm from the front room. The room is used for eating and sleeping in the evenings. The overall area of the expanded work-home is 57 sq.m.

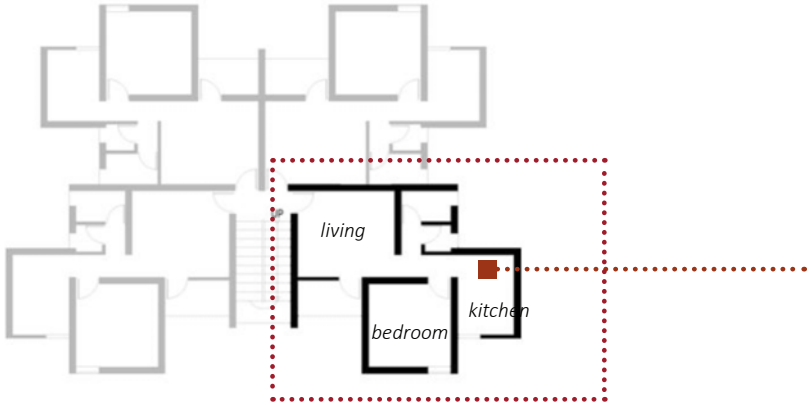
Scale: Building

Fig (i)

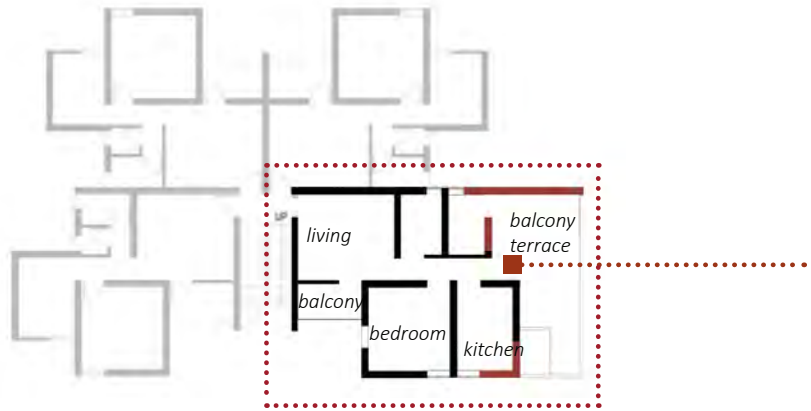
Floor plan of Shefaliben's work-home mapping productive activites.

(i) Base image floor plan : Dwg. 2.2.4.3 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314 .

Scale: Building



Original layout of the apartment.



The unit as expanded and changed by the owner to accomodate productive activities.

Fig (ii)

Floor plan of Shefaliben's work-home mapping changes made to original layout. The work-home is on the second floor of a multi-storey apartment complex. Such an extension was possible because her neighbours on the ground and first floors extended their units.

Scale: Neighbourhood

Physical Infrastructure

Water- Unclear

Sewage-Unclear

Toilet- Toilet indicated in the floor plan.

Electricity- Unclear

Access- Present means of access unclear.

(ii) Base image : Dwg. 2.2.4.2 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314 .

Information on physical infrastructure and spatial location derived from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

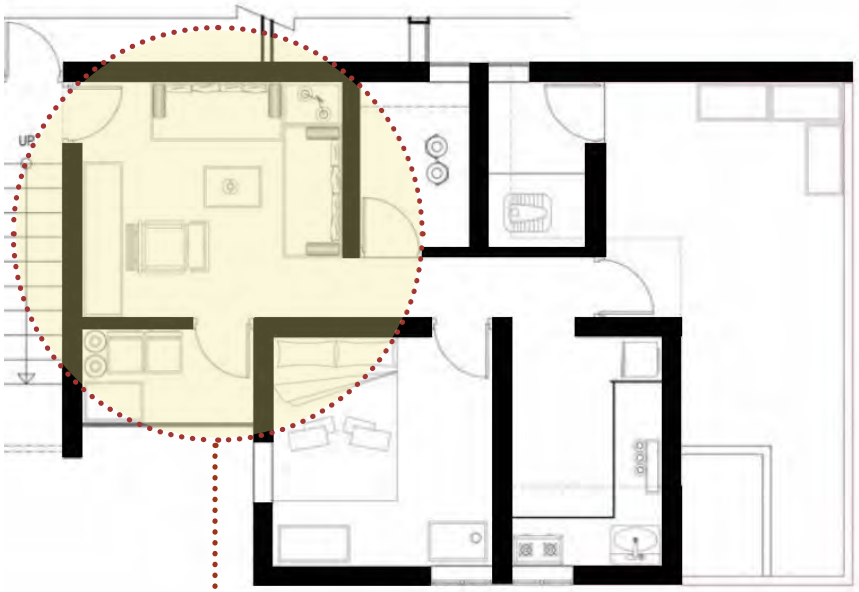


Fig (iii)

Front room is used as a parlor throughout the day. In the evenings the space is mainly used for eating and sleeping.

Fig (iv) Eating

"This work creates maximum dirt as well as a lot of mess in the house. During lunch time when any customer comes I have to refuse them."

Fig (v) Sleeping

"I always work in the front room. My husband does work outside. So, he does not stay at home for the whole day and this is the occupation that deals with ladies customers. So, it is good to not have male in the house."

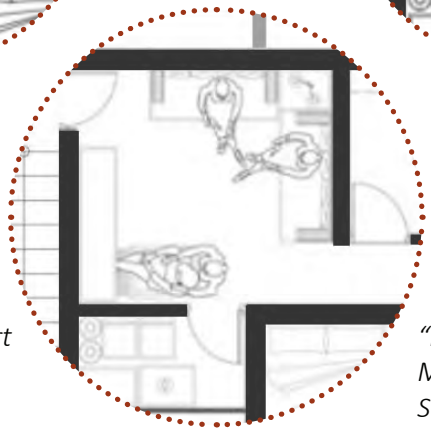


Fig (vi) Working

"When there are more number of customer then our beds in the front room are used for waiting. Customers are not allopwed to enter ahead of first room."

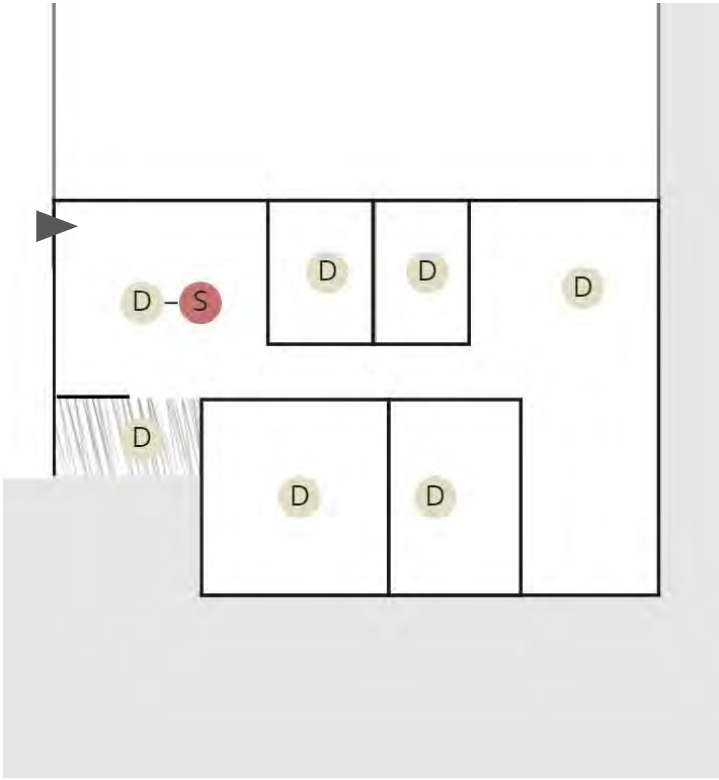
(iii), (iv), (v), (vi) Base image floor plans : Dwg. 2.2.4.3, Dwg.2.2.4.4, Dwg. 2.2.4.5, Dwg. 2.2.4.6 respectively from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314 .

Built form and spatial characteristics

Fig (vii)

Floor plan of Shefaliben's unit mapping lighting conditions.

Spatial Schematic



(vii) Base image floor plan drawing : Dwg. 2.2.4.11 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314 .

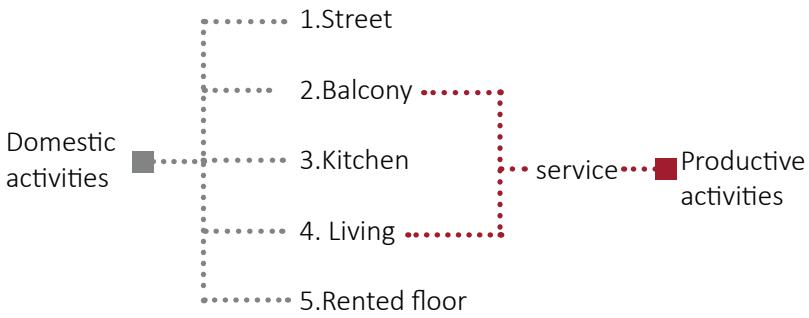
CASE SS3 |Lantz & Engqvist, 2008

Type 1 S

Home + Service

Name : Meldridge's house.
Location : New Poonawalla Street
Tenure : Unclear
Industry : Nursery and tuition classes
Type of practice : User Intervention

Activity Mapping



Domestic and productive activities overlap at the entrance balcony and in the living room. The living room is used as a children's nursery (service-1) during the day and the entrance balcony is used as a tution school (service-2) in the evenings.

Scale: Building

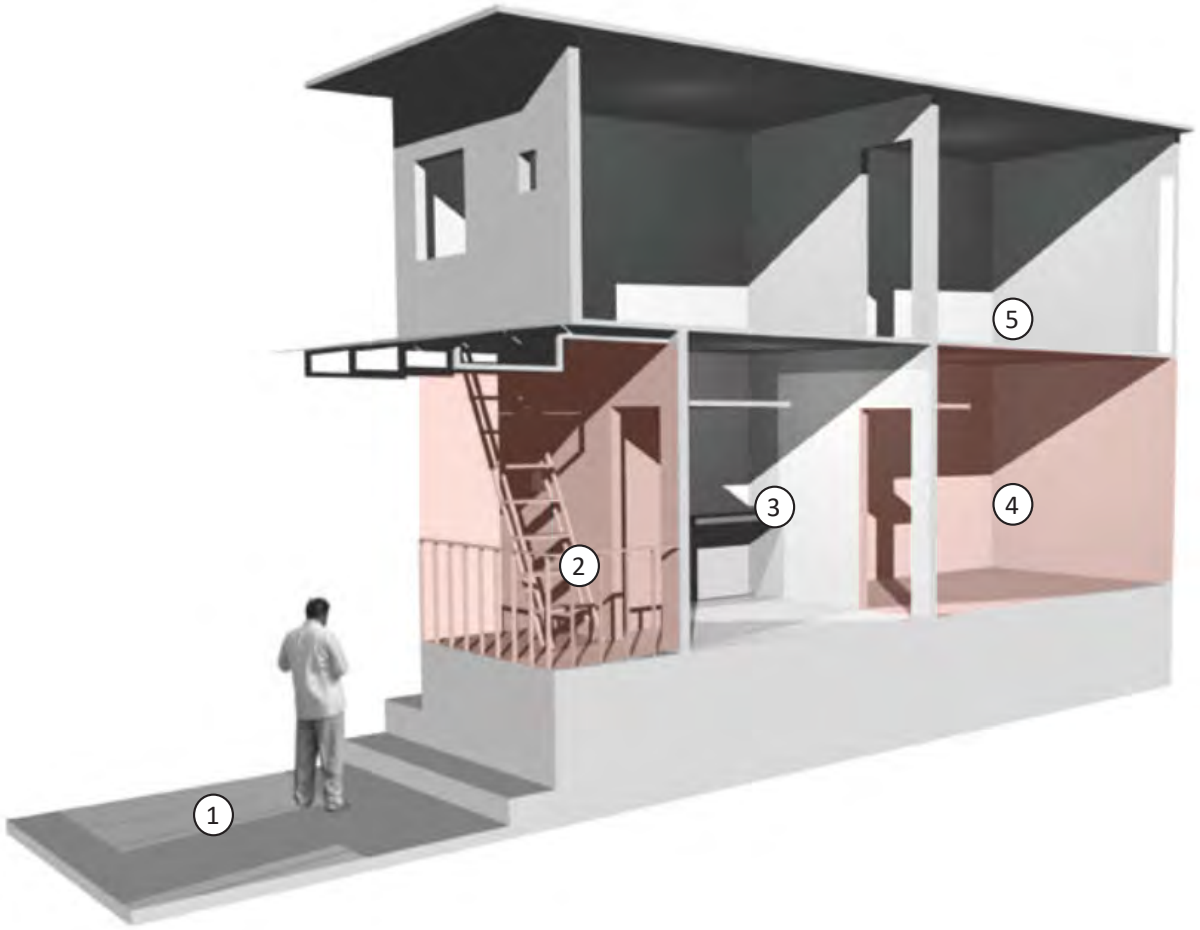


Fig (i)

A 3-D view mapping productive activities in Meldridge's work-home.

(i) Base image : Fig 2:15 from Lantz, M., & Habib Engqvist, J. (Eds.). (2008). *Dharavi: Documenting Informalities.* Royal University College of Fine Arts, Art and Architecture.

Scale: Building

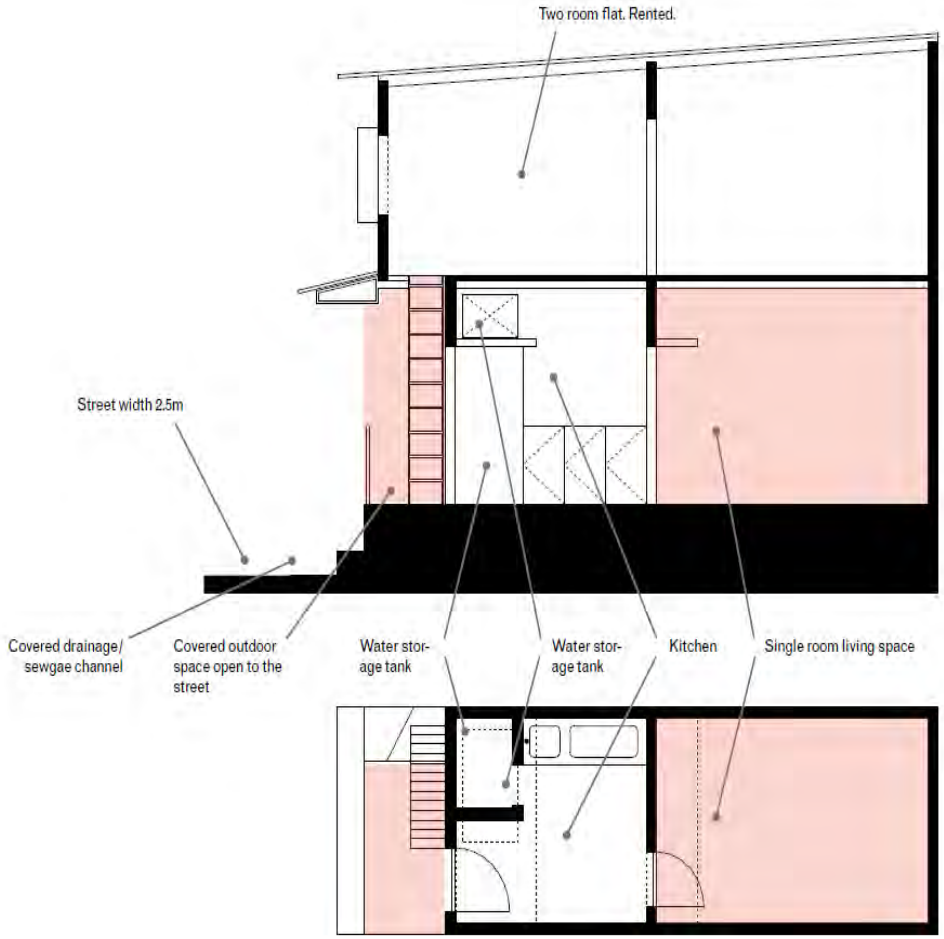


Fig (ii)

A section and a plan mapping productive activities in Meldridge's work-home.

Physical Infrastructure

Water- Stored in RCC tanks built along with the unit.

Sewage- Covered sewage channel runs accross the street.

Toilet- The unit has two toilets and one bathroom.

Electricity- Connection available.

Access- 2.5 m wide concrete access road.

(ii) Base image : Fig 2:17 from Lantz, M., & Habib Engqvist, J. (Eds.). (2008). *Dharavi: Documenting Informalities.* Royal University College of Fine Arts, Art and Architecture.

Information on physical infrastructure derived from Lantz, M., & Habib Engqvist, J. (Eds.). (2008). *Dharavi: Documenting Informalities.* Royal University College of Fine Arts, Art and Architecture.

Built form and spatial characteristics

Fig (iii)

A 2.5 m wide street with a covered drainage channel runs along the street.

Metal staircase to access the upper floors of the G+1 storey houses.

Fig (iv)

Metal railing around the entrance verandah. This space is used as a sit out as well as for taking tuitions. There is a staircase here going to the upper storey that is rented out.

(iii), (iv) Base Image : Fig 2:28, Fig 2:26 respectively from Lantz, M., & Habib Engqvist, J. (Eds.). (2008). *Dharavi: Documenting Informalities.* Royal University College of Fine Arts, Art and Architecture.

Built form and spatial characteristics

Fig (v)

Details of survey conducted by SPARC showing PV New Chawl.

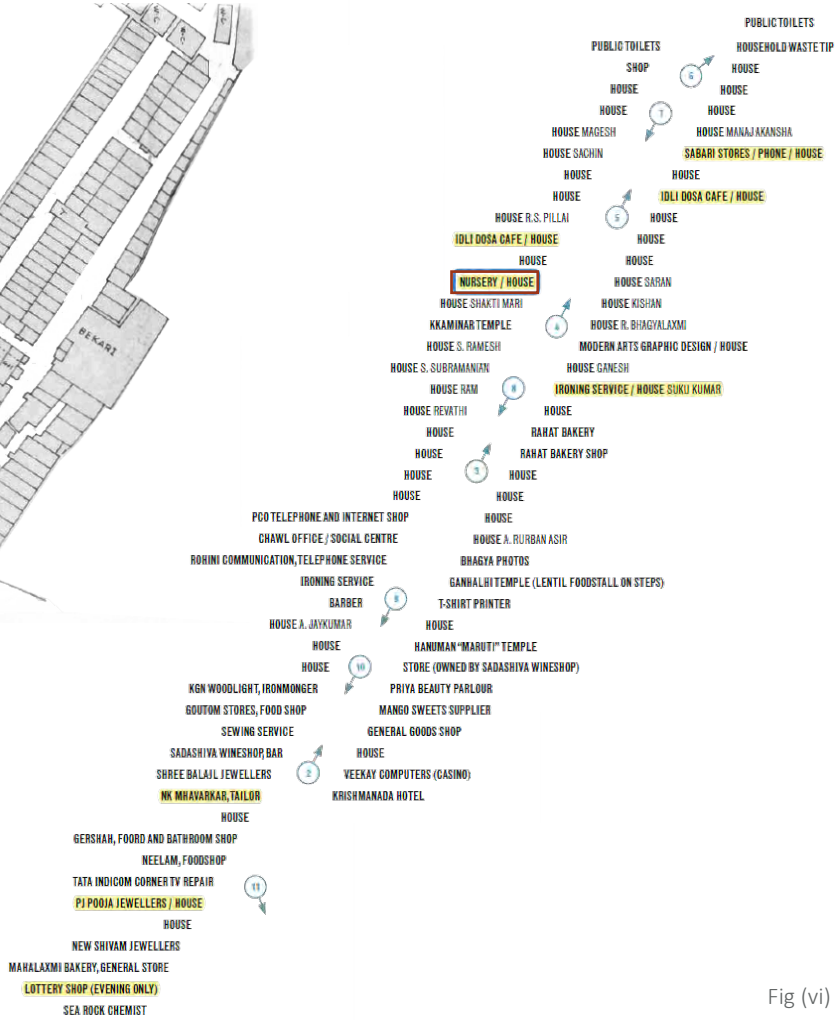
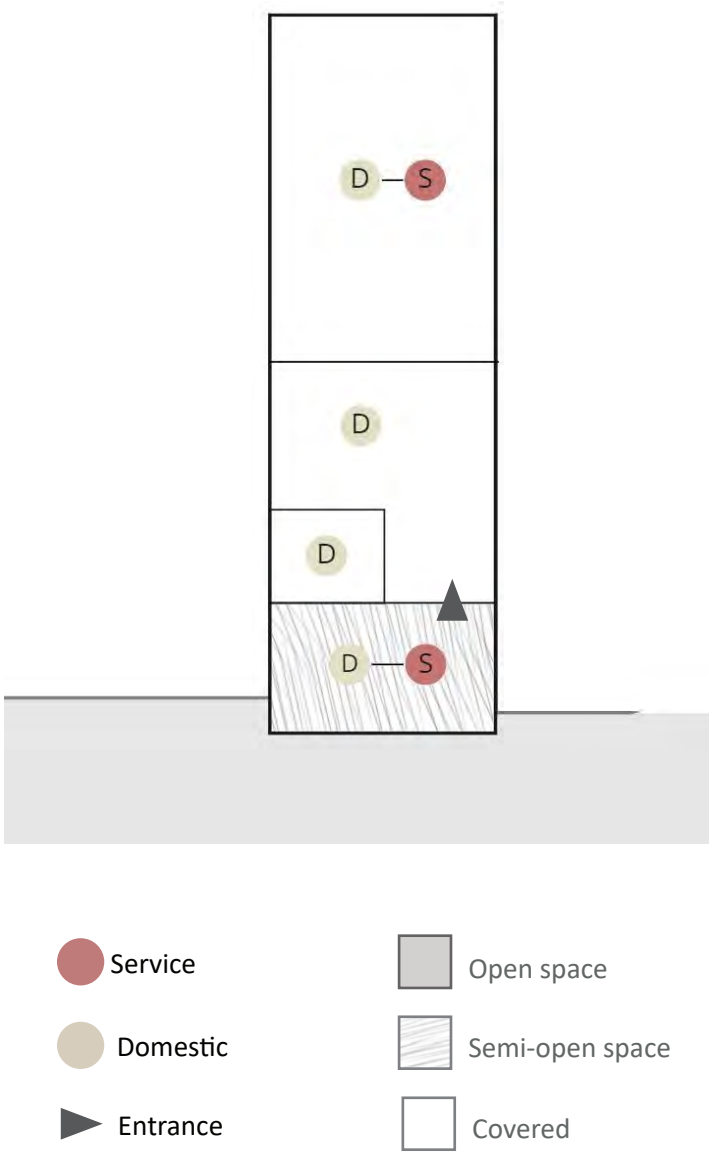


Fig (vi)

This illustration shows the many commercial establishments and work-homes along the street outside Meldridge's work-home.

Spatial Schematic



(v) Survey drawing of Poonawalla street : Fig 2:13 from Lantz, M., & Habib Engqvist, J. (Eds.). (2008). *Dharavi: Documenting Informalities.* Royal University College of Fine Arts, Art and Architecture.

(vi) Illustration of the street extracted from Lantz, M., & Habib Engqvist, J. (Eds.). (2008). *Dharavi: Documenting Informalities.* Royal University College of Fine Arts, Art and Architecture.

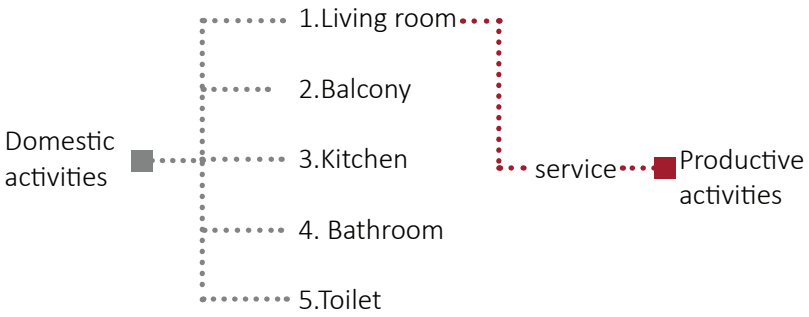
CASE SS4 |Bhadja, 2019

Type 1 S

Home + Service

Name : Seema K
Location : Nanranpura, Parasnagar society, Ahmedabad.
Tenure : Owner occupancy
Industry : Teaching
Type of practice : User Intervention

Activity Mapping



The living room is used for teaching as well as other domestic activities. The overall area of the work-home is 30 sq.m.

Scale: Building

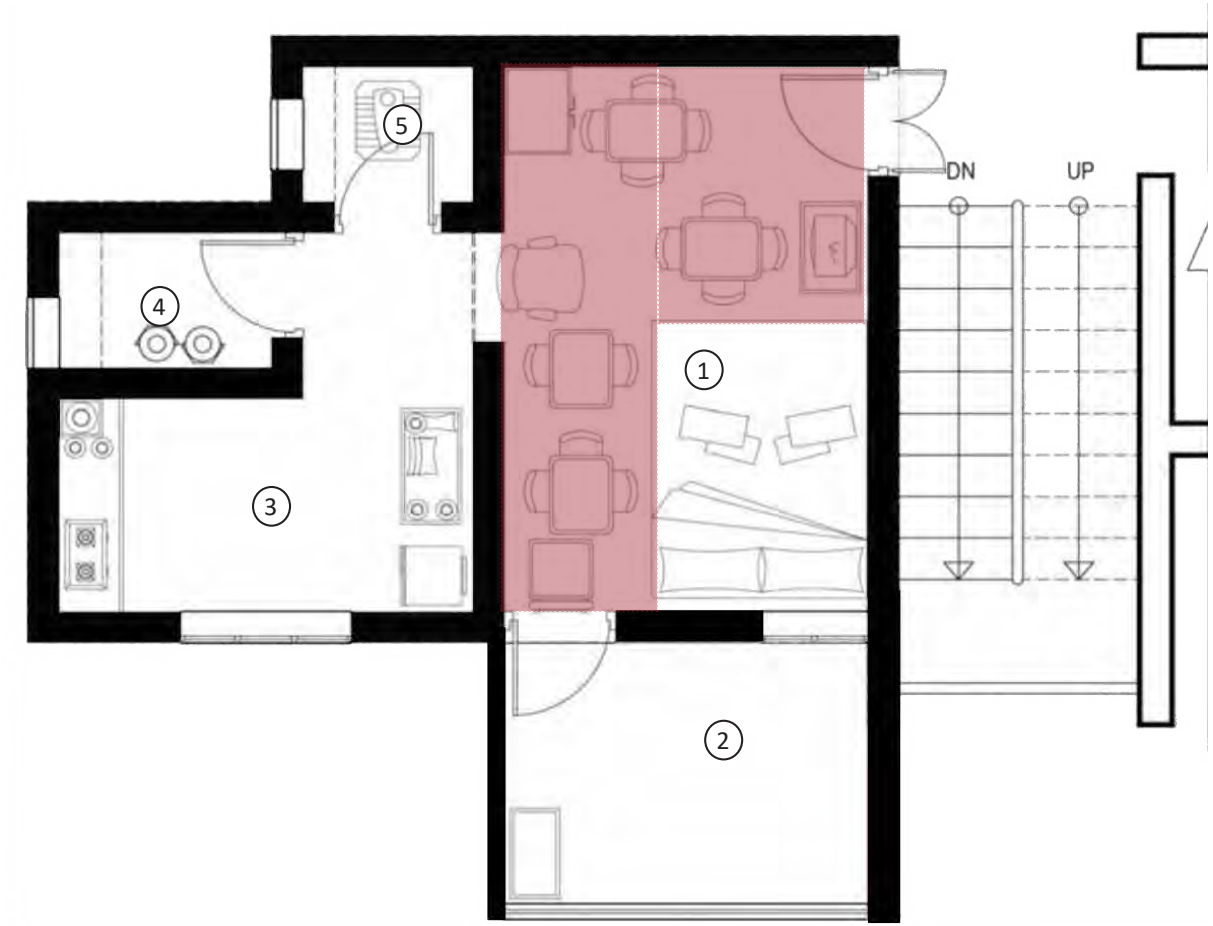


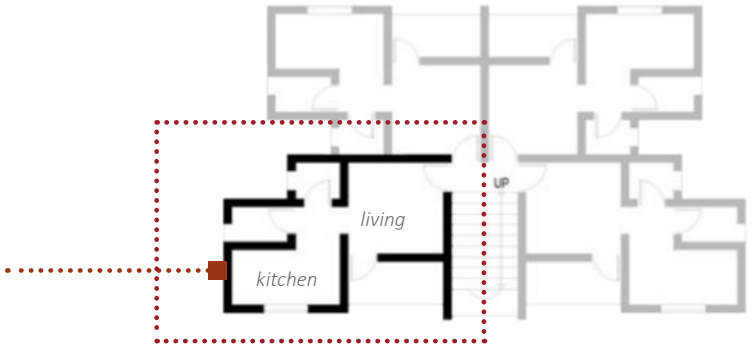
Fig (i)

A floor plan mapping productive activities in Seema's house.

(i) Base image : Dwg. 2.4.2.3 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

Scale: Building

Original layout of the apartment.



The unit as expanded and changed by the owner to accomodate productive activities.

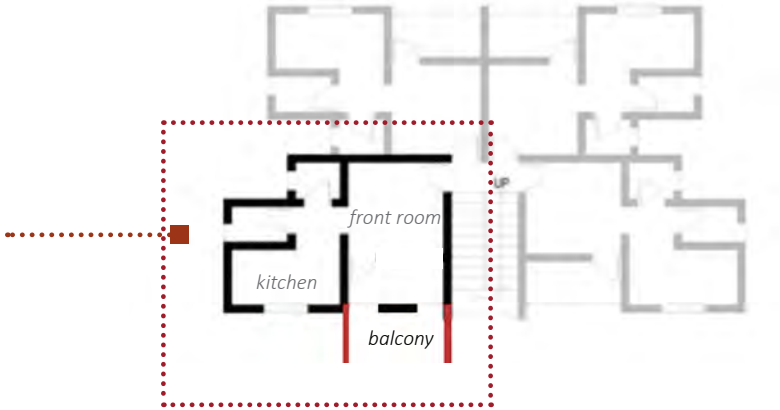


Fig (iii)

Floor plan of Seema's work-home mapping changes made to original layout. Extension was possible because her ground floor neighbours had extended their home.

Scale: Neighbourhood

Physical Infrastructure

Water- Unclear

Sewage-Unclear

Toilet- Toilet indicated in the floor plan.

Electricity- Unclear

Access- Present means of access unclear.

(ii) Base image : Dwg. 2.4.2.2 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

Information on physical infrastructure and spatial location derived from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

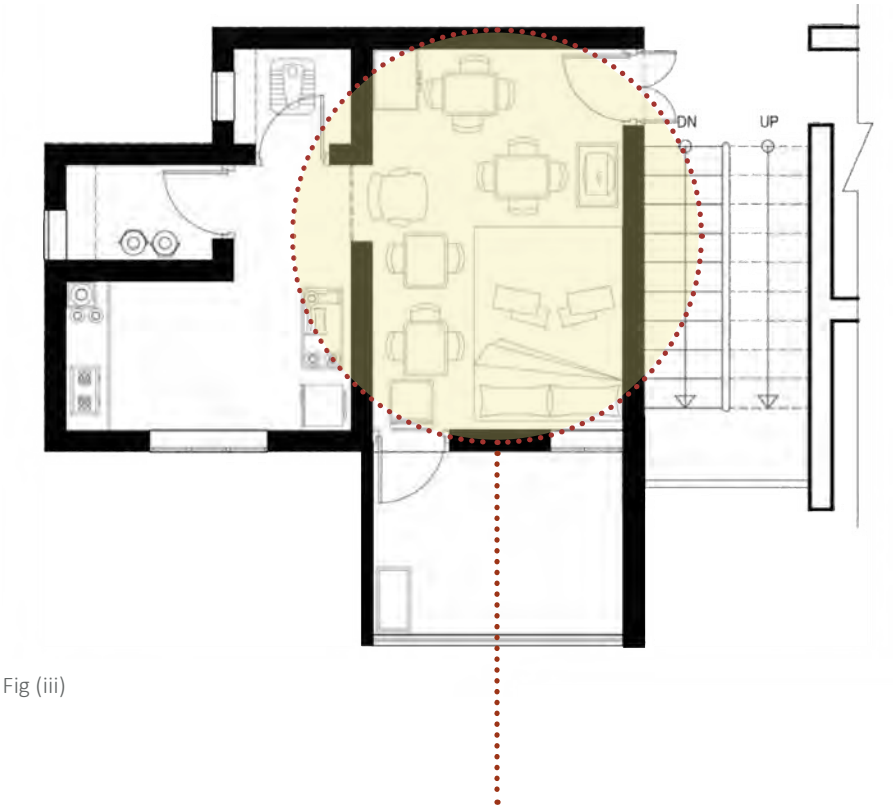


Fig (iii)

The front room is the living room, used for most domestic and productive activites. The layout of the furniture changes through the day to accommodate different activities at different times. The balcony is used at some parts of the day to store furniture that is not in use.

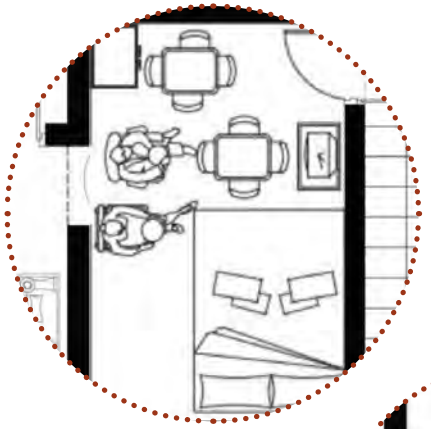


Fig (iv) Eating

"Me and my wife work in the front room, and it is always occupied by students and we eat during the interval."

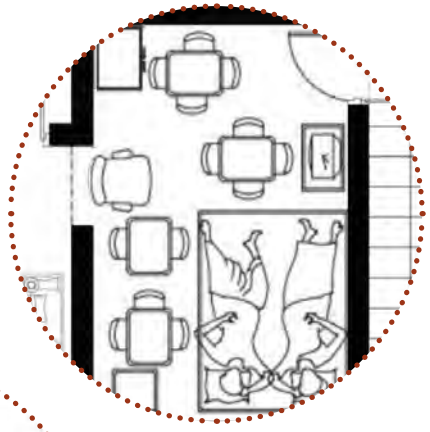


Fig (v) Sleeping

"The front room means everything to us. Whole day we run teaching classes and carry other activities like eating and sleeping."

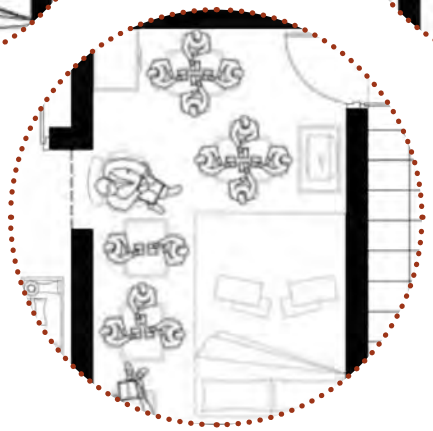


Fig (vi) Working

Activities such as teaching, eating and sleeping, all take place in the living room at different times of the day.

(iii), (iv), (v), (vi) Base image : Dwg. 2.4.2.3, Dwg. 2.4.2.5, Dwg. 2.4.2.6, Dwg. 2.4.2.4 respectively from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

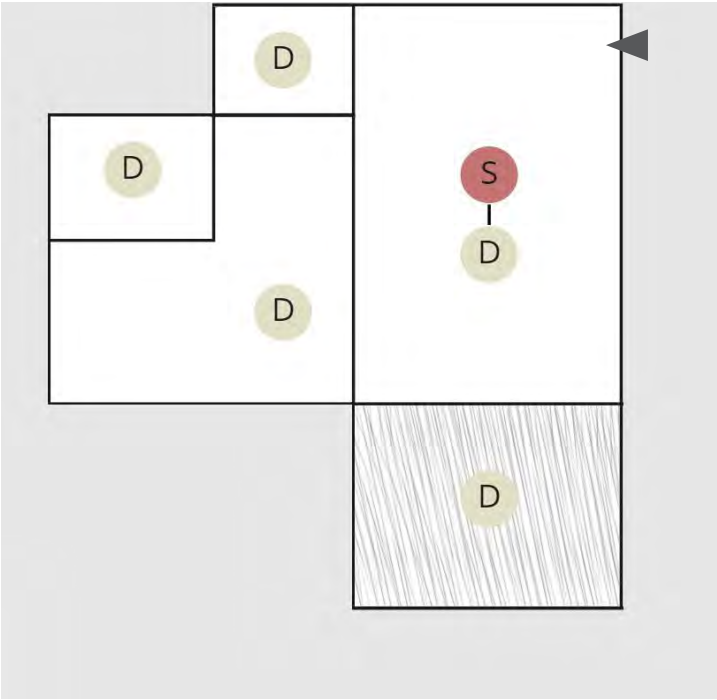
Built form and spatial characteristics

"Well lit space is required for teaching and there are only two closed spaces, out of that one of it is kitchen. Hence living room is the only possibility."

Fig (vii)

Floor plan of Seema's work-home with lighting conditions mapped.

Spatial Schematic



(vii) Base image : Dwg. 2.4.2.11 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

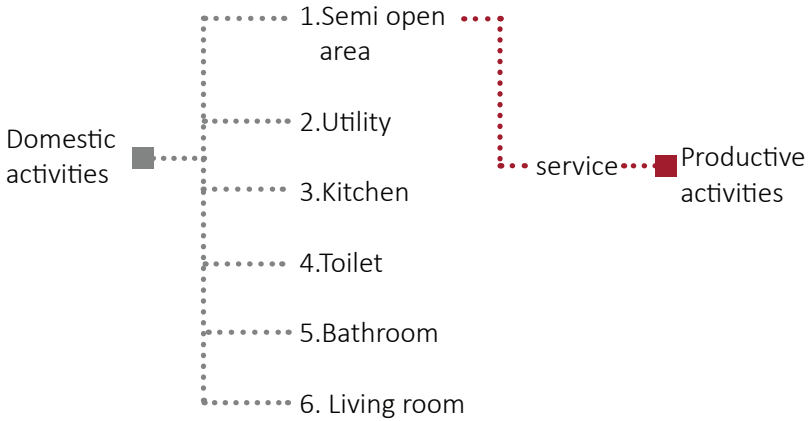
CASE SS5 |Bhadja, 2019

Type 1 S

Home + Service

Name : Rajubhai Vasita
Location : Amee Apartments, Memnagar, Ahmedabad
Tenure : Owner occupancy
Industry : Ironing clothes
Type of practice : User Intervention

Activity Mapping



The semi-open area is used exclusively for productive activities which happen from 9am to 12pm, and 6pm to 9pm. This space is separated from the rest of the spaces in the work-home. The overall area of the expanded work-home is 91 sq.m. There are two distinct entrances to the work-home, one leading to the semi-open space, and the other to the living room of the house.

Scale: Building

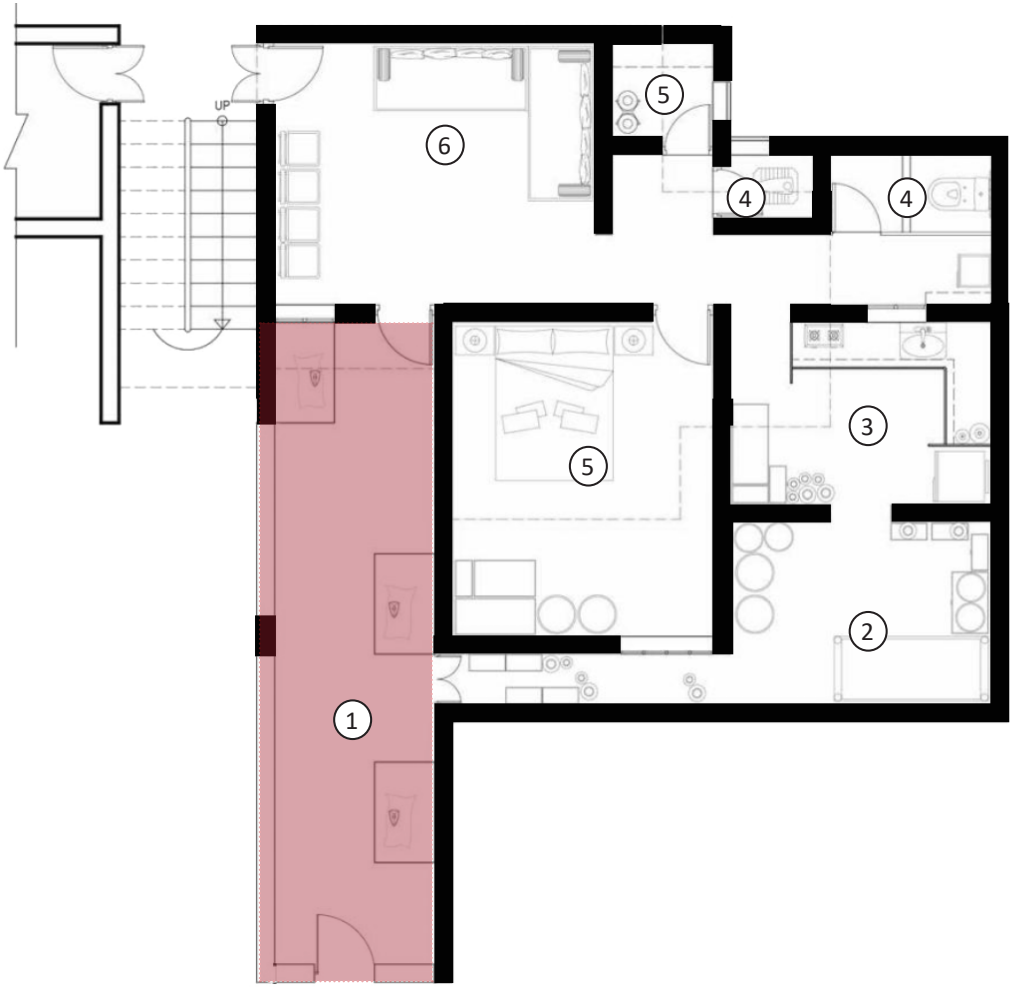
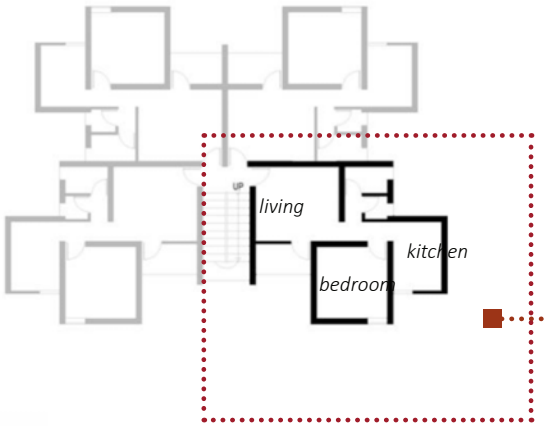


Fig (i)

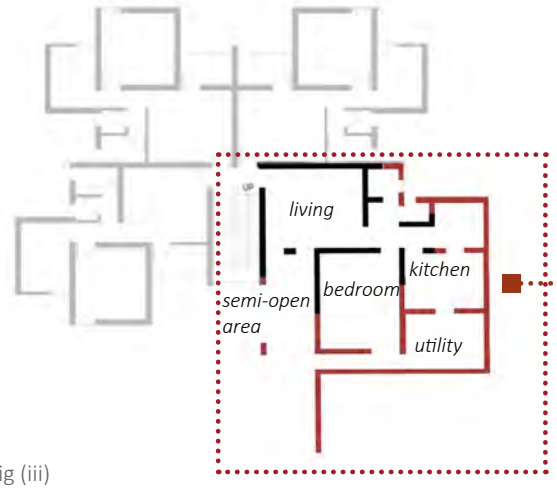
A floor plan mapping the productive activities in Rajubhai's work-home.

(i) Base image : Dwg. 2.2.1.3 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

Scale: Building



Original layout of the apartment.



The unit as expanded and changed by the owner to accomodate productive activities.

Fig (iii)

Ground floor plan of Rajubhai's work-home, mapping changes made to original layout.

Scale: Neighbourhood

Physical Infrastructure

Water- Unclear

Sewage-Unclear

Toilet- Toilet indicated in the floor plan.

Electricity- Unclear

Access- Present means of access unclear.

(ii) Base image : Dwg. 2.2.1.2 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

Information on physical infrastructure and spatial location derived from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

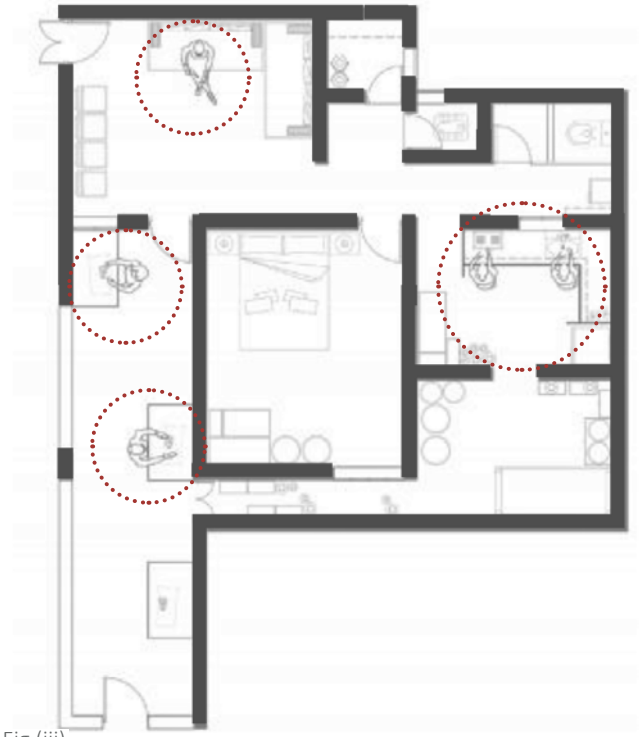


Fig (iii)

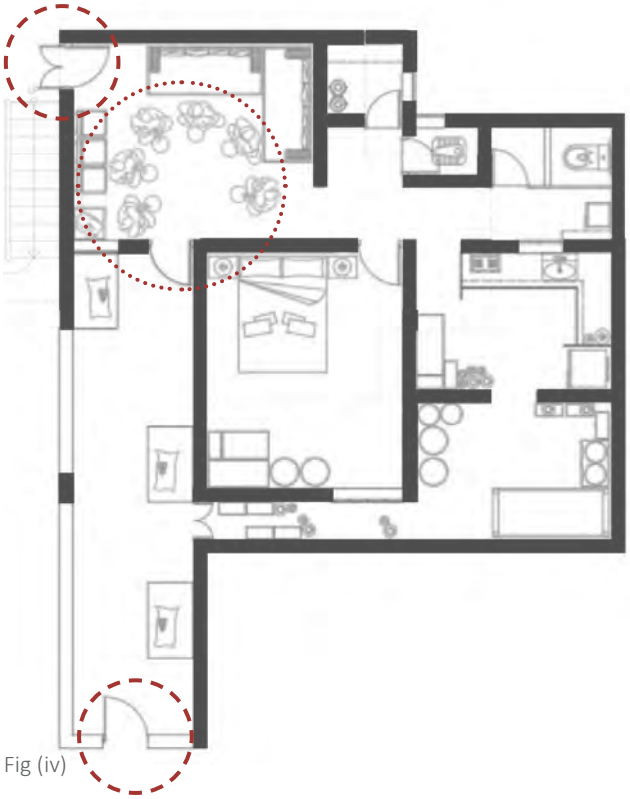


Fig (iv)

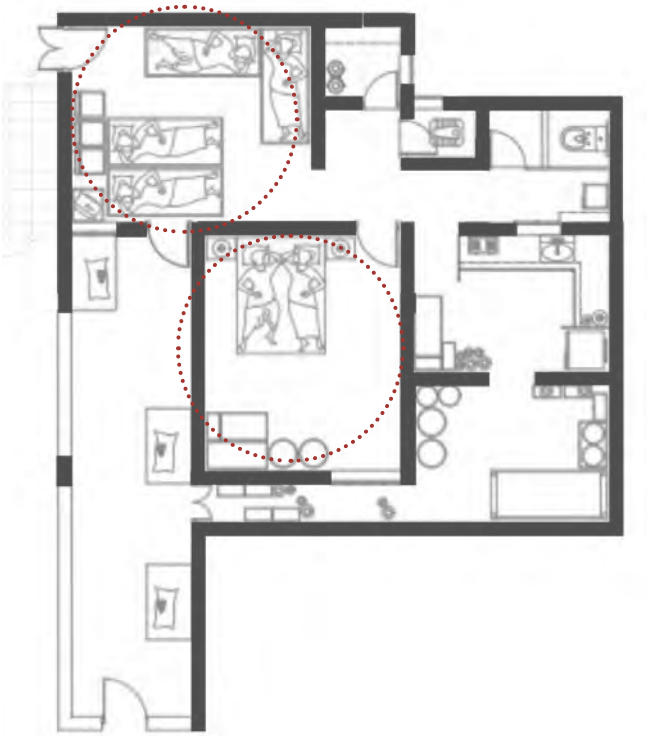


Fig (v)

The above illustrations(iii),(iv) and (v) show spatial configurations at three different times of the day.

There are two entrances to the work-home: one opens into the semi-open space for ironing, and the other opens into the living space. The former is used for customers, and the latter for guests.

(iii), (iv), (v) Base images : Dwg. 2.2.1.4, Dwg2.2.1.5, Dwg. 2.2.1.6 respectively from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

Built form and spatial characteristics

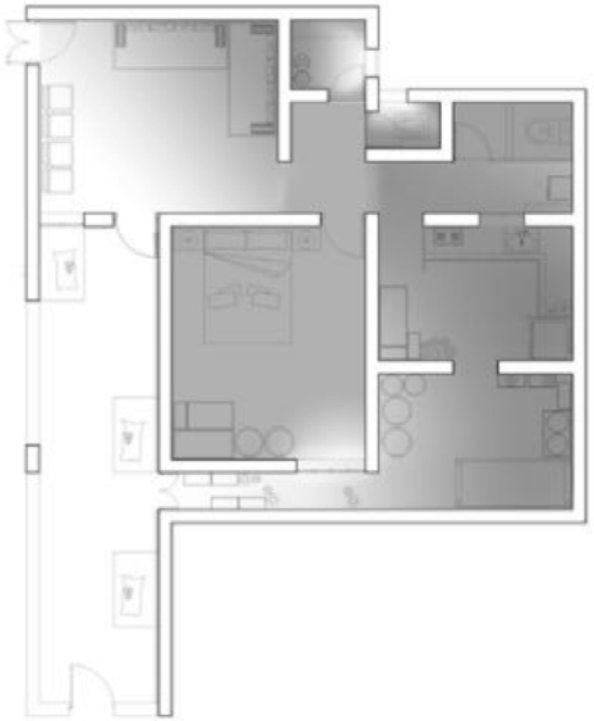
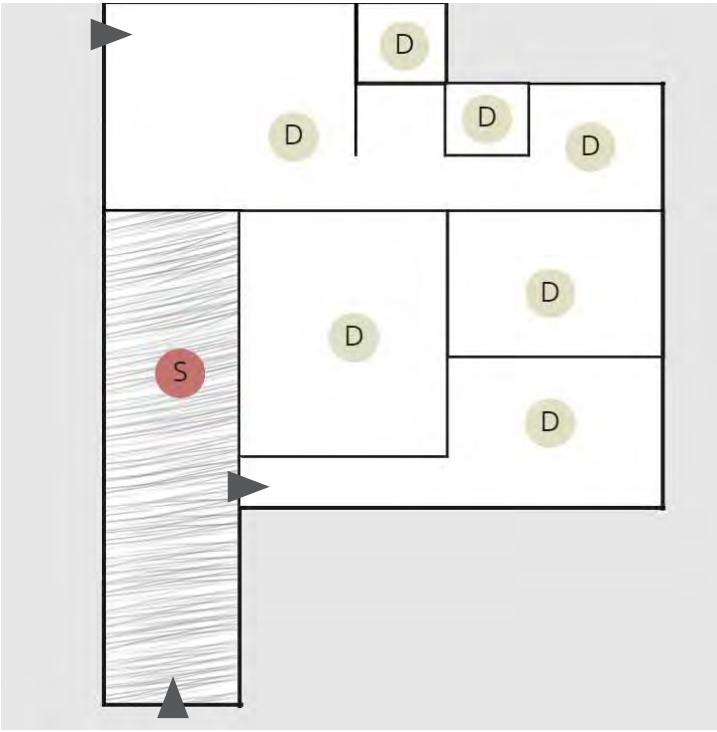


Fig (vi)

Floor plan mapping lighting conditions of Rajubhai's work-home.

Spatial Schematic



(vi) Base image : Dwg. 2.2.1.11 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

CASE SS6 |Bhadja, 2019

Type 1 S

Home + Service

Name : Dilipbhai Darji
Location : Srinagar Apartments, Ahmedabad
Tenure : Owner-occupancy
Industry : Tailor
Type of Intervention : User Intervention

Activity mapping

1. Living room
2. Inside room
3. Kitchen
4. Bathroom
5. Toilet

Service
Living

Productive activities

Domestic activities

Dilipbhai carries out tailoring in the living room roughly from 4pm-8pm, where his son also watches TV after school, and his wife carries out household activities. The room is also used for sleeping and eating at other times of the day. Domestic and productive activities take place within the same space.

Scale: Unit

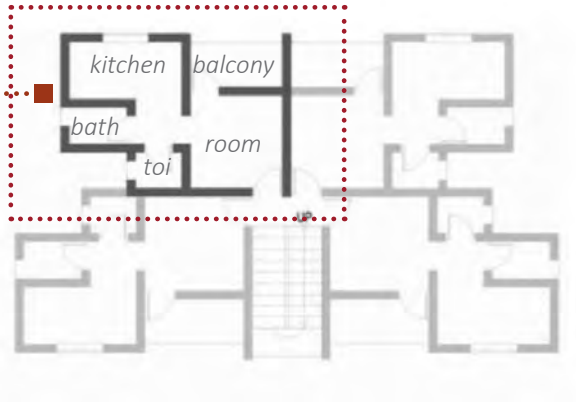
Fig (i)

Floor plan mapping the productive activities within Dilipbhai Darji's work-home, measuring roughly 25sq.m.

(i) Base image : Dwg.2.1.1.3 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

Scale: Building

Original layout of the apartment.



Dilipbhai enclosed the balcony, converting it into a kitchen. The original kitchnen was converted into a room and the main room serves as the living room.

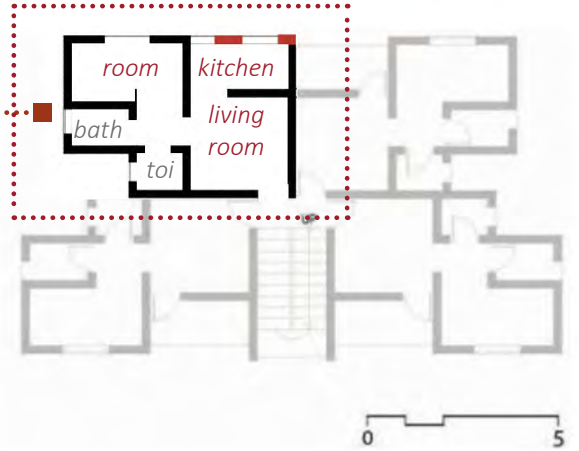


Fig (ii)

The floor plan of Dilipbhai Darji's apartment mapping changes made to the original layout.

Scale: Neighborhood

Physical Infrastructure

Water- Present; means of access unclear

Sewage-Unclear

Toilet- Toilet indicated in the floor plan.

Electricity- Present; means of access unclear

Access- Unclear

(ii) Base image : Dwg.2.2.1.2 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

Information on physical infrastructure and spatial location extrapolated from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

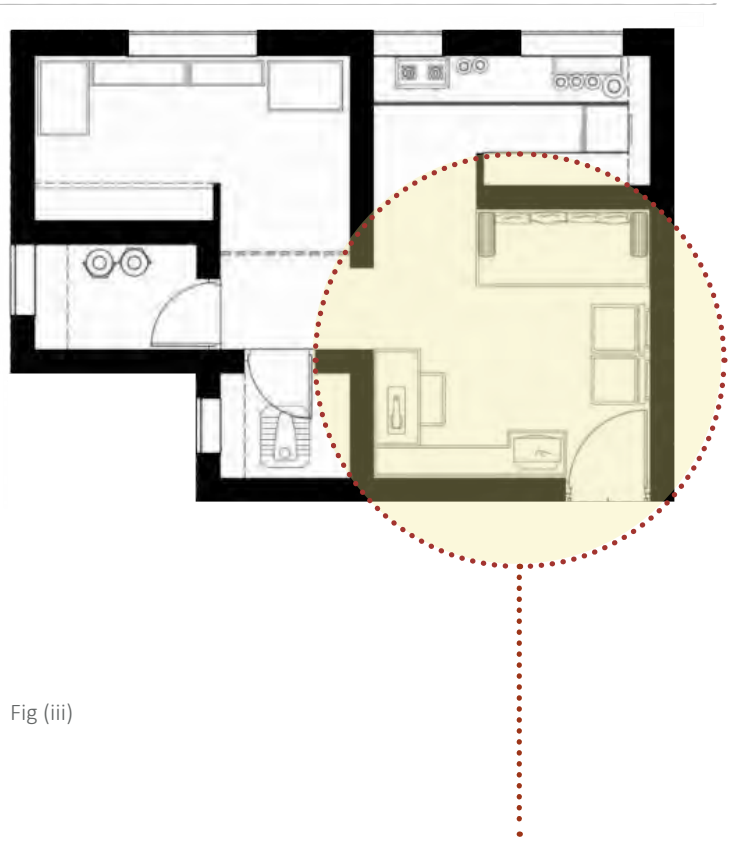


Fig (iii)

One finds themselves in the front room on entering Dilipbhai's work-home, and connects to other rooms in the work-home. This is the space where productive activities are carried out alongside domestic activities by different members of the household through the clock.

Fig (iv) Sleeping

"The front room is very small for all four of us to do most of the daily activities.

But in a way it is very flexible, for example the bed in the front of the room is used for seating when guests come. My son is always eating on that bed and he sleeps there at night."

Fig (vi) Tailoring and watching TV

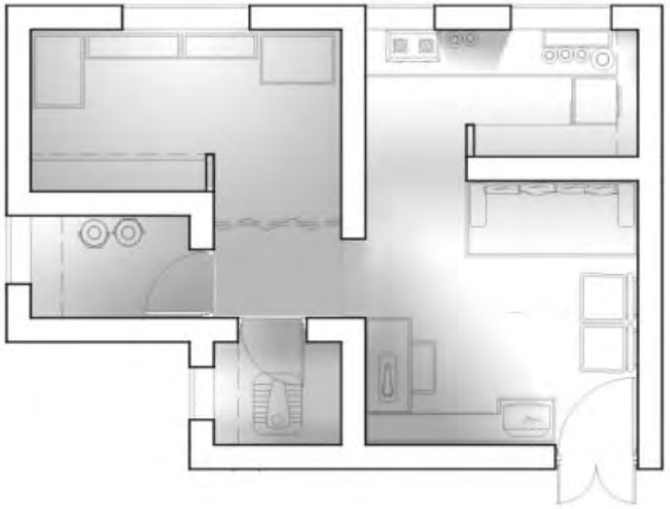
Fig (v) Eating

"Sometimes because of the organisation, the functions overlap in a not so comfortable way. There were times where the customers would have to wait while we were having lunch in the living room. But in a way, the arrangement is good as it allows easy switching between living and tailoring work."

(iii), (iv), (v), (vi) Base images : Dwg.2.1.1.3, Dwg.2.2.1.6, Dwg.2.2.1.5, Dwg.2.2.1.4 respectively from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

All quotes from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

Built form and spatial characteristics



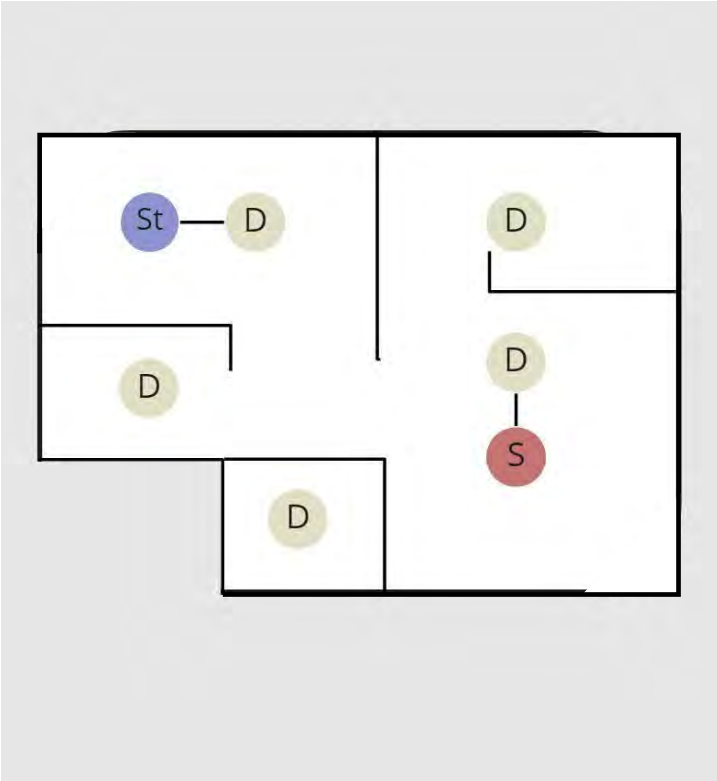
“We have enough light in the front room. Inside room is very dark and kitchen is well lit. So, we choose to put the sewing machine in front room.”

Fig (vii)

Plan mapping lighting in Dilipbhai’s work-home.

Dilipbhai's work-home is on the second floor of a multi-storey apartment complex, built using wet construction techniques.

Spatial Schematic



(vii) Base image : Dwg.2.2.1.11 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314.

CASE SS7 | Datta, 2008

Type 1 S

Home + Service

Name : Mimi
Location : Madipur widow colony, West Delhi
Tenure : Tenancy
Industry : Tuition class
Type of Intervention : User Intervention

Built form and spatial characteristics

Mimi uses the terace of her work-home to conduct tuition classes for children from the neighbourhood. Mimi and her family are tenants. Earlier, when their landlord had not granted them acces to the terrace, Mimi used to go house to house to take private tuitions in the neighbourhood. Access to the terrace has allowed Mimi to take classes for multiple students at a time.

Fig (i) shows the terrace being used to conduct classes.

Fig (i)

Mimi's unit within the settlement.

(i), (ii) Base layer : Fig 10, Fig 5 repectively from Datta, A. (2008). Architecture of low-income widow housing: "spatial opportunities" in Madipur, West Delhi. *Cultural Geographies, 15*(2), 231–253.

Single activity work-homes:

Storage (SSt)

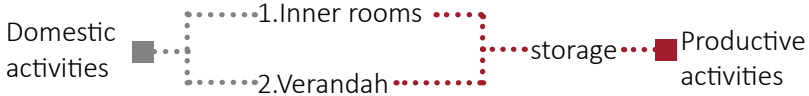
CASE SSt1 | CRIT & JJ College of Architecture, 2010

Type 1 St

Home + Storage

Name : Bhainu house
Location : Versova Fishing Village
Tenure : Owner occupancy
Industry : Fishing equipment storage
Type of prectice : User Intervention

Activity Mapping



The entrance verandah of the work-home is used to store nets and other fishing equipment.

Scale: Building

Fig (i)

Fig (ii)

A section and a plan mapping Bhainu's work-home.

(i), (ii) Base image section and floor plan : from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf

Scale: Neighbourhood

Fig (iii)

The neighborhood has warehouses and cold storage facilities.

Fig (iv)

A street in Versova.

The above images show the streets in Versova fishing village.

Scale: Neighbourhood

Physical Infrastructure

Water-The area has water supply by the municipality and most houses have water meters.

Sewage- Individual sewer line.

Toilet-The house has two toilets and one bathroom as indicated in the plan.

Electricity- Unclear

Access- Present means of access unclear.

(iii), (iv) Base images : from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf

Information on physical infrastructure and spatial location derived from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf.

Built form and spatial characteristics

Fig (v)

Single storeyed structures have sloped roofing built with mangalore tiles and wooden supports.

Plastered brick walls

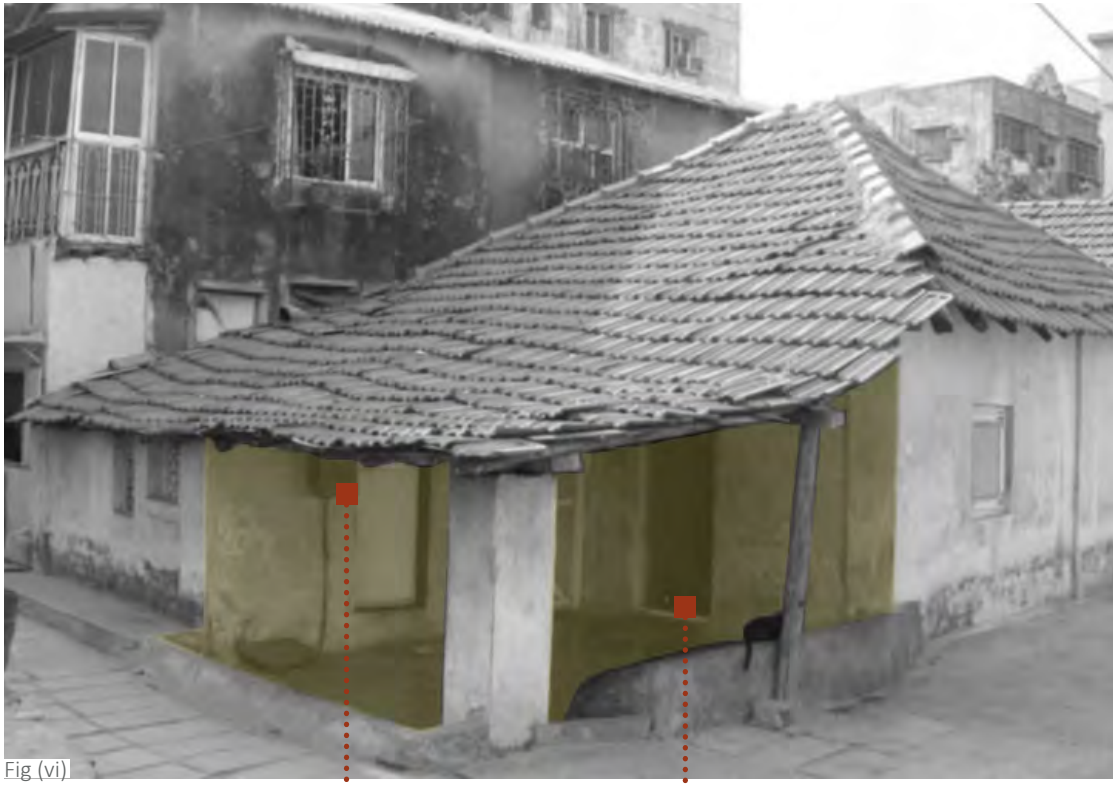


Fig (vi)

A water meter.

The semi-open verandah space at the entrance of the single storey homes in the neighborhood.

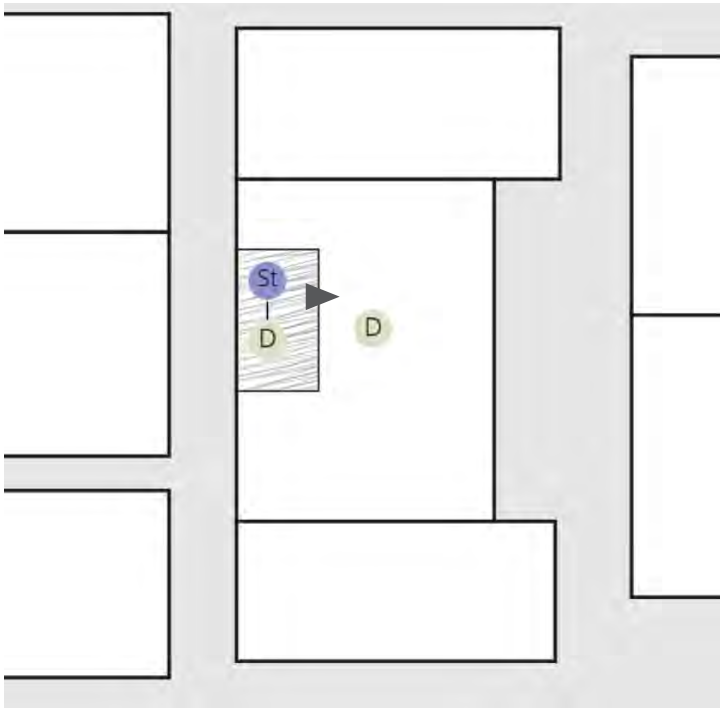
(v), (vi) Base images from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf

Built form and spatial characteristics

Fig (vii)

The settlement is densely packed.
Structures are occupied by families that own them, and are modified as needed.

Spatial schematic



St Storage

D Domestic

Entrance

open space

Semi-open space

Covered

(vi) Base image : from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf

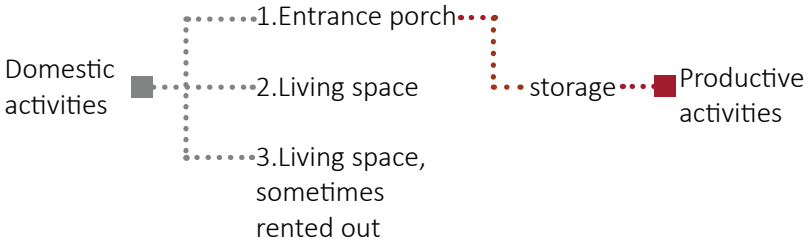
CASE SSt2| CRIT & JJ College of Architecture, 2010

Type 1 St

Home + Storage

Name : Qureshi Nagar
Location : Kurla, Mumbai.
Tenure : 'Owner' built and rented-out chawls on Collector's land and Municipal Corporation land. Residents extend and sub-let houses.
Industry : Storing animal fat
Type of practice : User Intervention

Activity Mapping



Qureshi Nagar is a slum in Mumbai along the city's eastern railway line. Residents earn by working as labour in nearby places or in animal-fat godowns in the slum. Animal fat is stored in large drums along the streets.

Scale: Unit

Fig (i)

A section mapping the productive activities of a chawl type work-home in Qureshi nagar.

(i) Base image : Fig 10 from from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf

Scale:Street

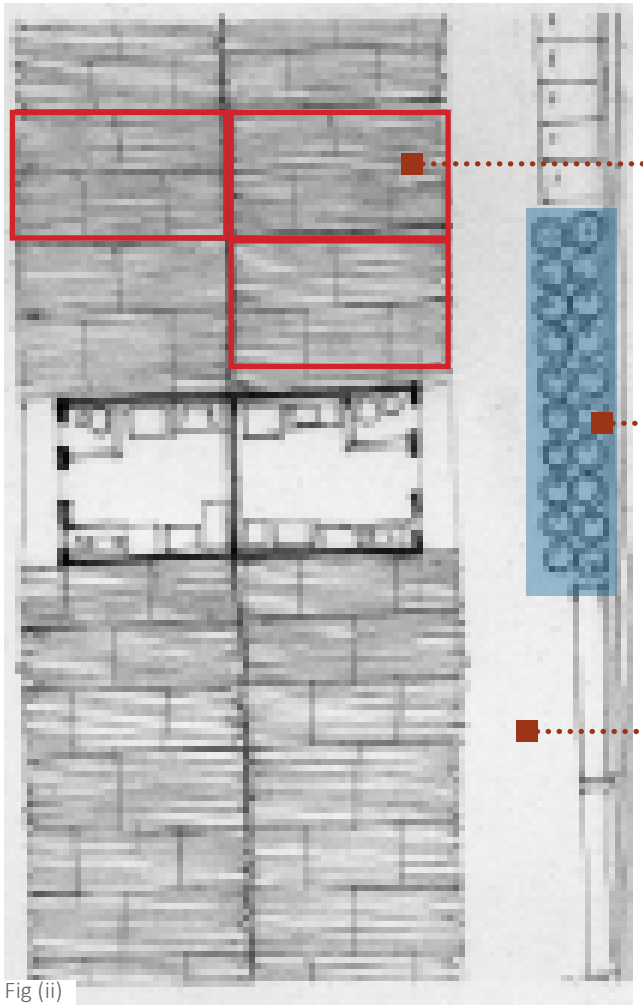


Fig (ii)

Plan of a street in Qureshi Nagar.

Scale: Neighbourhood

Physical Infrastructure

Water- A group of 6 to 8 houses have a common connection sharing the supply for duration of 5 hours daily. All the people staying in the chawl have their own pumps, which are enclosed with a metal cover and a lock.

Sewage- Thin drains outside work-homes carry sewage from nahani ghar and toilet.

Toilet- All the houses have a mori inside the room. Some have toilets in their homes, others use public toilet.

Electricity- Electricity meters present; access unclear.

Access- 1.5 to 2m wide streets.

(ii) Base image : Fig 9 from from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf

Information on physical infrastructure and spatial location derived from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf.

Built form and spatial characteristics

Fig (iii)

The metal drums used to store the animal fat.

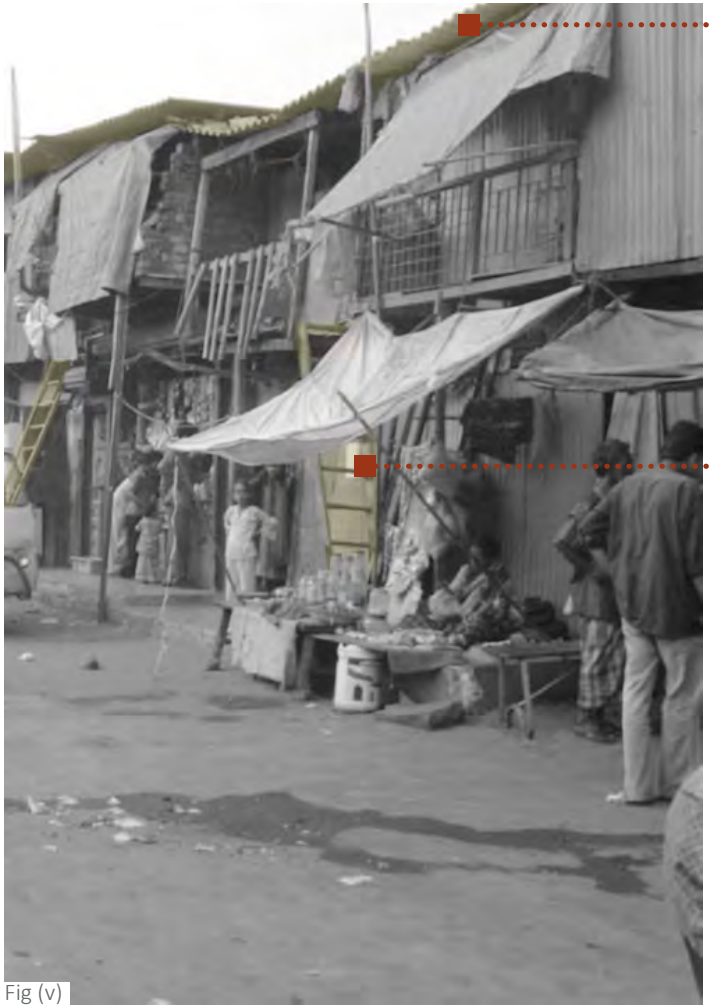
Water pipelines and sewage lines run parallel to the streets.

Fig (iv)

Houses are approximately 10’ x 10’ or 12’ x 12’, with only one small window.

(iii), (iv) Base images : from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi
https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf

Built form and spatial characteristics

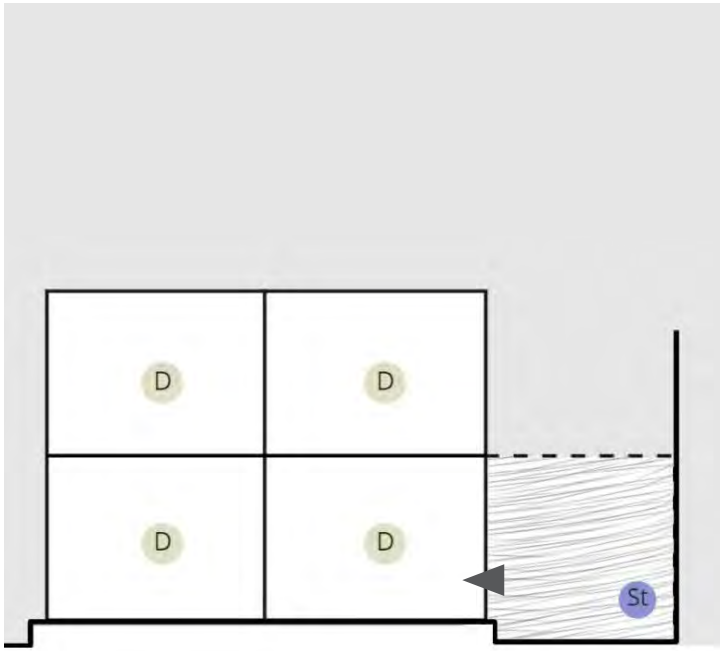


G.I or cement sheets used for roofing.

Higher floors are accessed by metal or timber ladders, which are usually outside the house.

Fig (v)

Spatial Schematic



St Storage

D Domestic

Entrance

open space

Semi-open space

Covered

(v) Base image : from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf

CASE SSt3 |Girmay, 2015

Type 1 St

Home + Storage

Name : Mrs Hadra Ahmed
Location : Addis-Ketema, Ethiopia
Tenure : Tenancy (kebele* house)
Industry : Vegetable, coal & soft drinks seller
Type of Intervention : User Intervention


Fig (i)


Fig (ii)


Fig (iii)

Built form and spatial characteristics

The work-home measures 36 sq.m. and consists of a single room. The space outside the work-home and the neighbouring street are used to store and sell wares. Mrs Hadra ualso ses the space within her home to store the products to be sold such as vegetables, coal and soft drinks.

The room is split vertically by the bed to provide storage space below it. Any prep work before the retail activity is done in the courtyard outside.

Fig(i) shows the neighboring street being used as a working and display area for her wares. Figs (ii) and (iii) show productive activities within the work-home. Fig(ii) shows a corner adapted to accommodate a bedroom and for storage underneath it.

"I have appropriated my house to make a vertical extension named in Amharic "kot", so that I will have enough working space and domestic space. Besides, I enclosed the veranda so that I can put some stuff in there. In addition to display, the products I sell I have built a temporary shop outside this courtyard."

(i), (ii), (iii) Base images from Girmay, A. (2015). Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751) [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full

*'Kebele' means local government. It is forbidden for tenants to undertake any renovation or repair in kebele houses, unless the situation is life threatening (Girmay, 2020).

CASE SSt4 |Girmay, 2015

Type 1 St

Home + Storage

Name : Mrs Lakech Tekile
Location : Addis-Ketema, Ethiopia
Tenure : Tenancy (kebele* house)
Industry : Vegetable selling
Type of Intervention : User Intervention

Fig (i)

Fig (ii)

Fig (iii)

Built form and spatial characteristics

The unit consists of a 56 sq.m. single room unit. The vegetables were stored inside the house and sold in the neighboring steet using temporary sheds. Mrs Lakech has built a vertical extension which is used as a store and bedroom. The verandah of the work-home is used for storage.

Fig(i) shows a view of the verandah space used to prepare the stored vegetables before its sale. Fig(ii) shows the vegetable shed set up in the neighboring street. Fig(iii) shows an interior view of the work-home.

(i), (ii), (iii) Base images : IGirmay, A. (2015). Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751) [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full

*'Kebele' means local government. It is forbidden for tenants to undertake any renovation or repair in kebele houses, unless the situation is life threatening (Girmay, 2020).

Multi activity work-homes:

(M)

CASE M1 | Sonowal, Jain & Pillai, 2018

Type 2 P R

Home + Production + Retail

Name : Dalalji ki Haveli
Location : Chanderi
Tenure : Owner occupancy
Industry : Weaving and general store
Type of Intervention : User Intervention

Activity mapping

Dalalji ki Haveli is a weavers' cluster where four households reside. The productive activities of weaving takes place using large looms, whose spatial footprint is largely towards the fixed end.

Scale: Building

Fig (i)

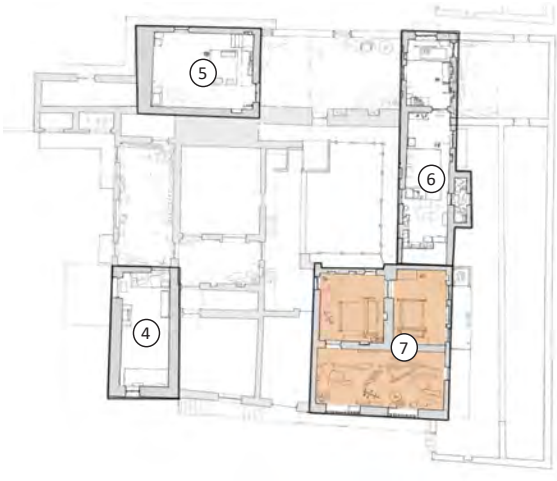


Fig (ii)

Fig (iii)

The floor plans of the Ground floor(i), First floor(ii) and second floor(iii) mapping the productive activities within Dalaljiki haveli.

(i), (ii), (iii) Base image : from Sonowal, P., Jain, S., & Pillai, V. (2018). *Study of Dalal ji ki Haveli* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision: Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Scale: Building

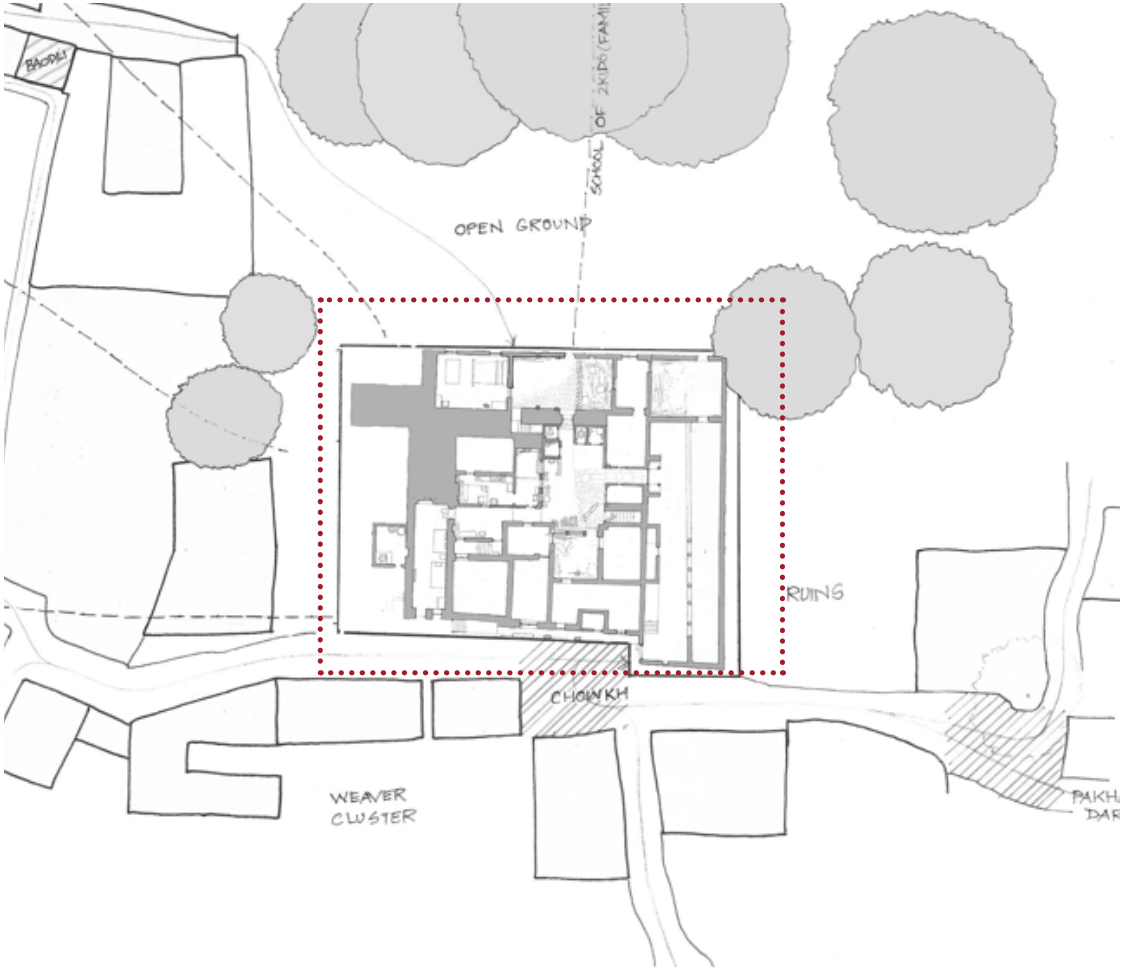


Fig (iv)

A Site plan of the of Dalalji ki Haveli. The haveli is located within a community of weavers.

Scale: Neighbourhood

Physical Infrastructure

Water-Unclear

Sewage-Unclear

Toilet- As indicated in floor plan

Electricity- Present; means of access unclear.

Access- Unclear

Fig (iv) Base image : from Sonowal, P., Jain, S., & Pillai, V. (2018). *Study of Dalal ji ki Haveli* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision: Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Information on physical infrastructure and spatial location derived ffrom Sonowal, P., Jain, S., & Pillai, V. (2018). *Study of Dalal ji ki Haveli* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision: Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

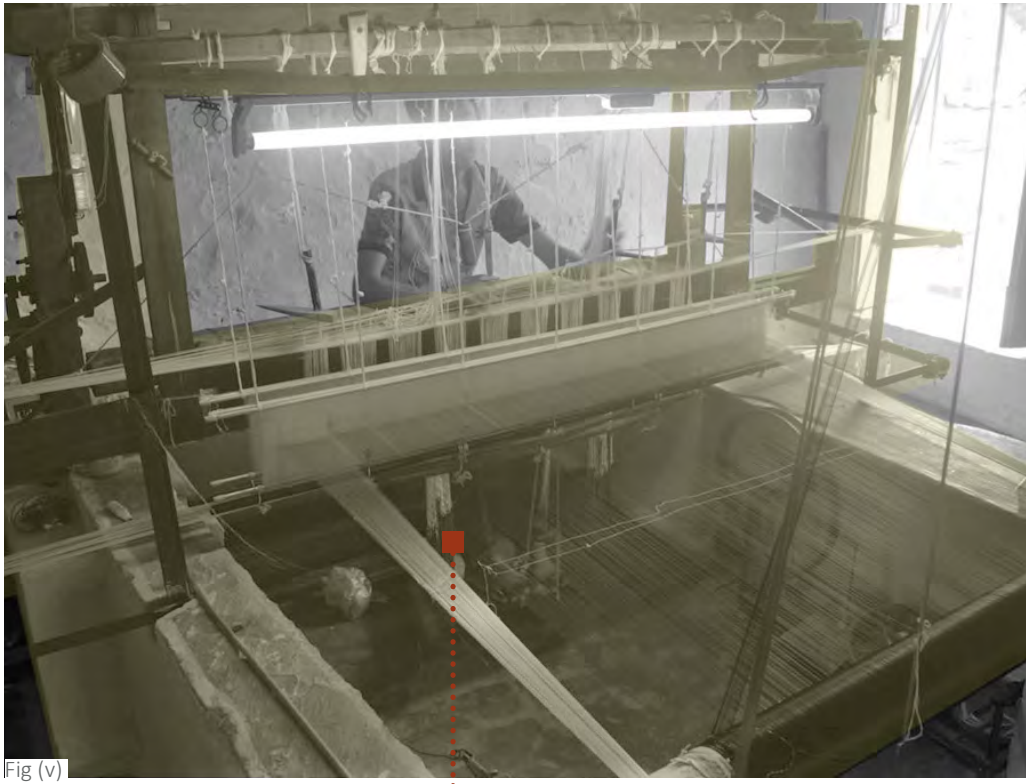


Fig (v)

The weaving eqipment used by S from from Unit 1. The room is lit by one window and remains active during the morning hours.

Fig (vi)

The building is a g+2 structure with courtyard in the middle. Construction technique used is stone frame structure with brick walls and sloped roofing with tiles (possibly stone).

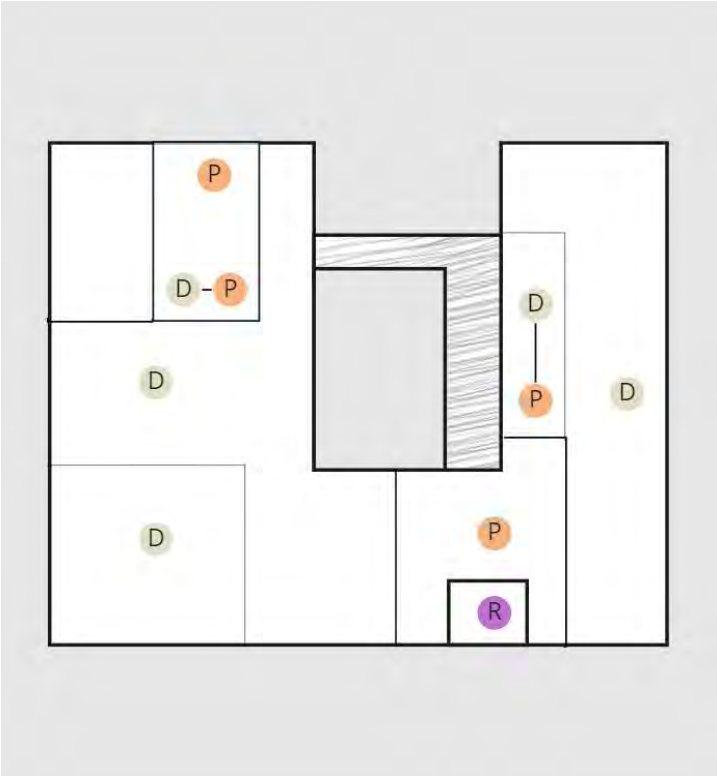
(v), (vi) Base images : from Sonowal, P., Jain, S., & Pillai, V. (2018). *Study of Dalal ji ki Haveli* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision: Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Built Form and spatilal characteristics

Fig (vii)

The central courtyard used for various domestic activities throughout the day by all the households.

Spatial Schematic



P Production

R Retail

D Domestic

Open space

Semi-open space

Covered

(vii) Base image : from Sonowal, P., Jain, S., & Pillai, V. (2018). *Study of Dalal ji ki Haveli* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision: Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

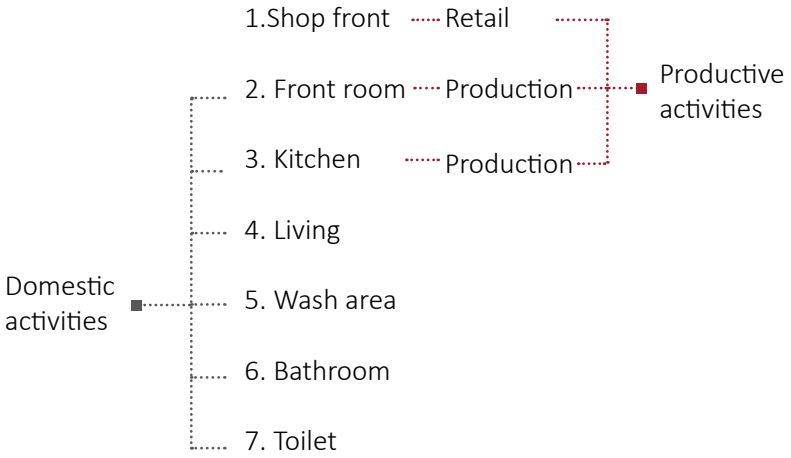
CASE M2 | Bhadja, 2019

Type 2 P R

Home + Production + Retail

Name : Meenaben Shah's Home.
Location : Mangalmurti Apartments, Ahmedabad.
Tenure : Owner-occupancy
Industry : Papad making and retail.
Type of Intervention : User Intervention

Activity mapping



The front room is used by Meenaben to make and dry papad from 10am to 6pm. It is also used by other members of the family for sleeping, eating and as a passage between other rooms of the work-home, also connected to the shop run by Meenaben's husband. The kitchen is also used for both domestic and productive activities. The overall area of the expanded work-home is 55 sq.m.

Scale: Unit

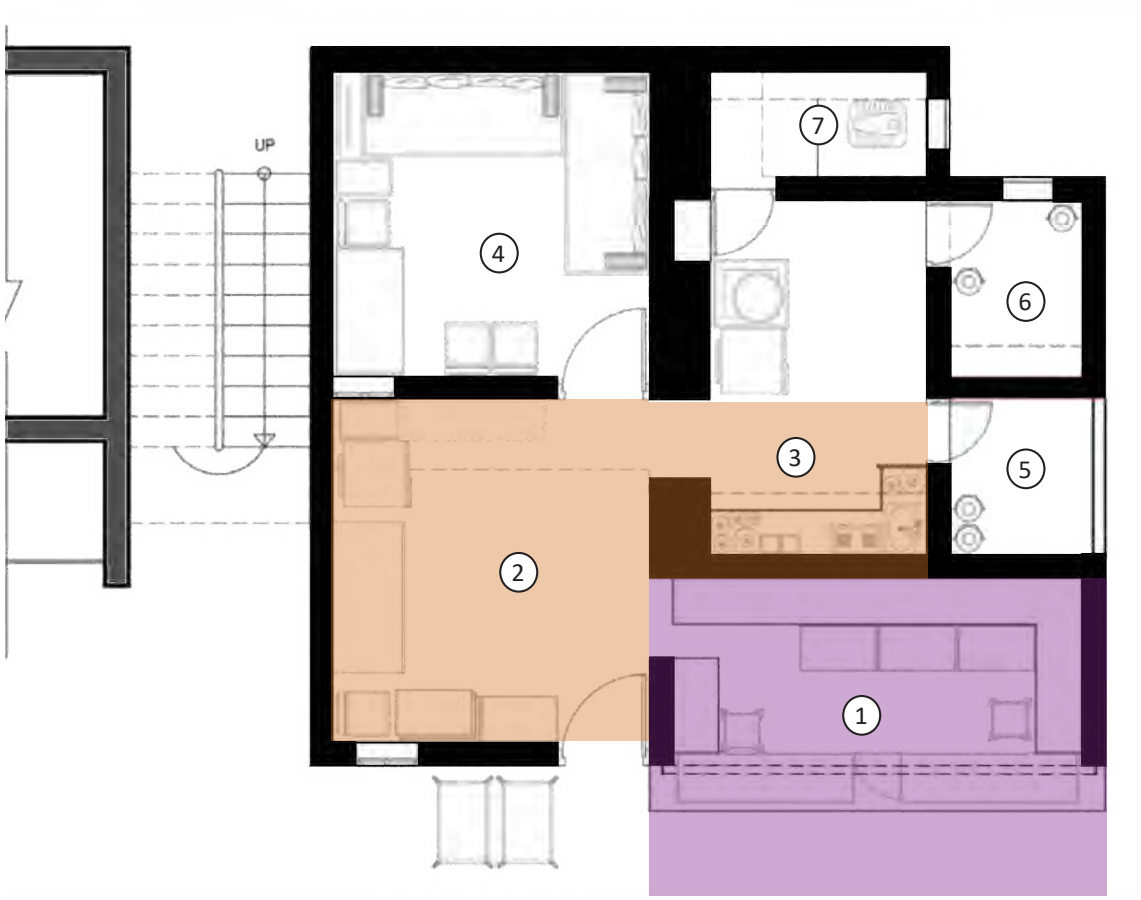
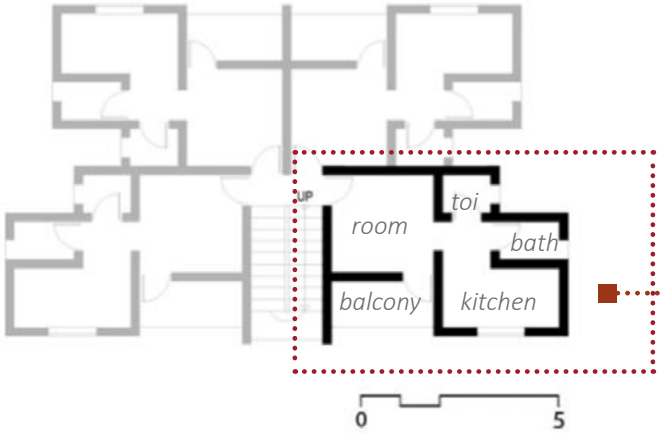


Fig (i)

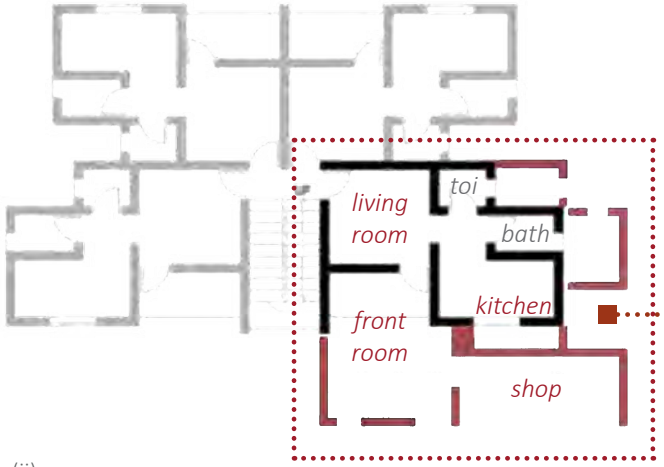
Floor plan mapping productive activities within Meenaben's work-home.

(i) Base image : Dwg.2.2.3.3 from from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314 .

Scale: Building



Original layout of the apartment.



The unit was expanded and changed by Meenaben to accomodate production of papad and retail activity.

Fig (ii)

Ground floor plan of Meenaben's work-home mapping changes made to original layout.

Scale: Neighbourhood

Physical Infrastructure

Water- Means of access unclear

Sewage-Unclear

Toilet- As indicated in floor plan

Electricity- Means of access unclear

Access- Unclear

(ii) Base image : Dwg.2.2.3.3 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314 .

Information on physical infrastructure and spatial location derived from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314 .

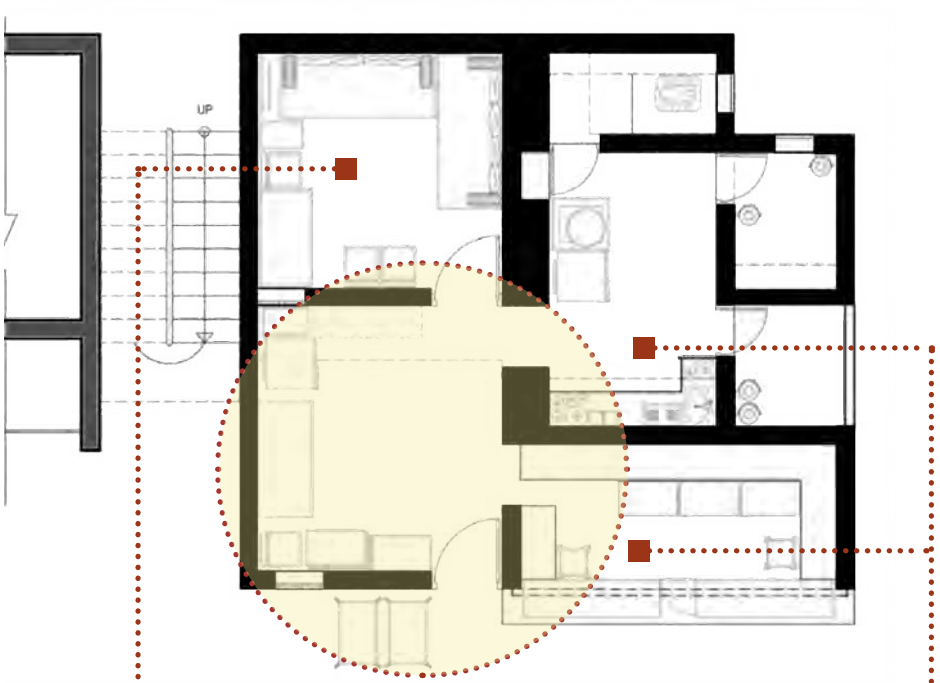


Fig (iii)

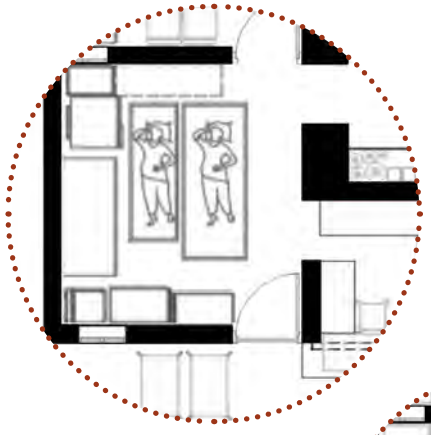


Fig (iv) Sleeping

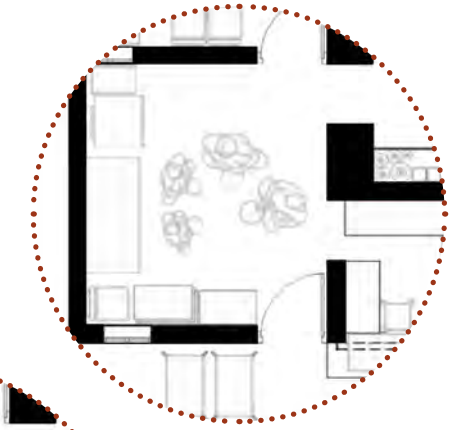


Fig (v) Eating

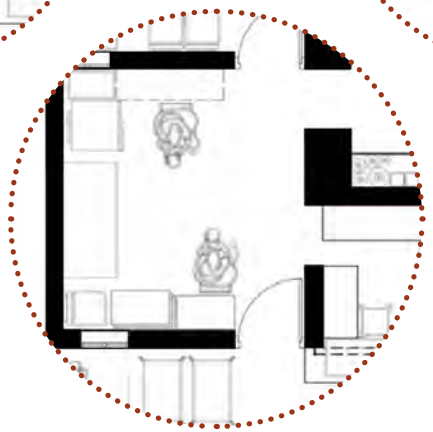


Fig (vi) Papad making

"I work in the front room and guests are entertained in the inside room. So it is very inconvenient for the guests to pass from the papad room, also I have to stop my work and engage with the guests."

"We do not allow customers to come in the spaces at the back of the house. Only guests and family members are allowed."

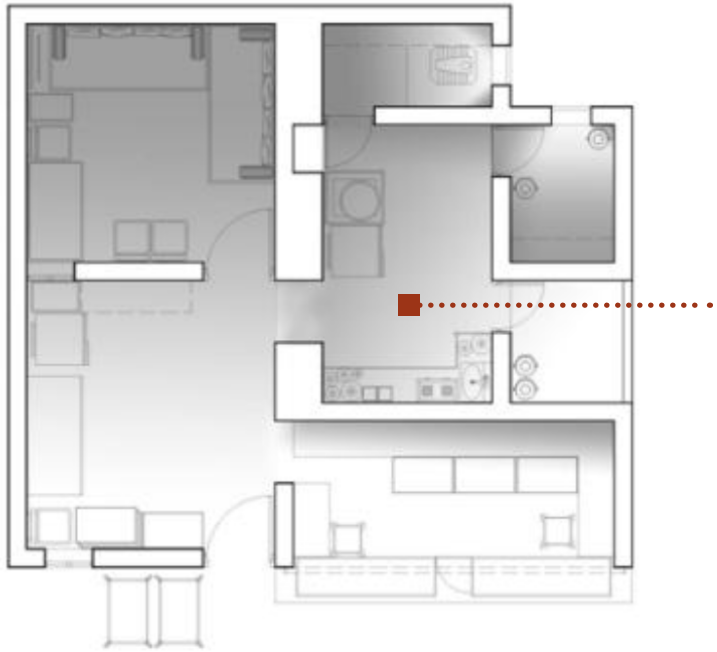
The front room used for domestic and productive activities. Further, one has to pass through this room to reach the inner room.

The kitchen is used for domestic as well as productive activities. The shop is also connected internally to the front room, and the husband is able to help with papad making.

"The front room is mostly used for papad making. We mostly use this space to dry the papads, and making of papad. The shop is also connected to that front room. So, my husband acts as a helping hand many times."

(iii), (iv), (v), (vi) Base images: Dwg.2.2.3.3, Dwg.2.2.3.6, Dwg.2.2.3.5, Dwg.2.2.3.4 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314 .

Built form and spatial characteristics



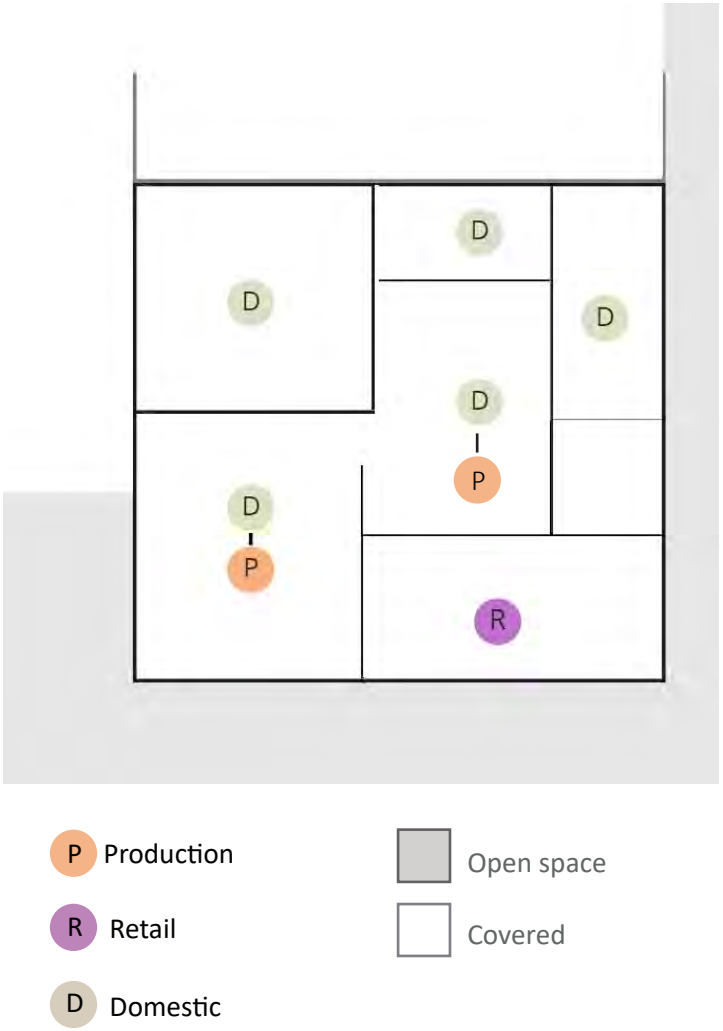
“We have enough light in the front room. Inside room is relatively dark while kitchen is well lit. This occupation requires a large well lit and ventilated space. Hence we decided to take over the front room for work.”

Fig (vii)

Plan mapping lighting in Meenaben’s work-home.

Meenaben's unit is on the ground floor of a multi-storey apartment complex built using wet construction techniques.

Spatial Schematic



(vii) Base image : Dwg.2.2.3.11 from Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314 .

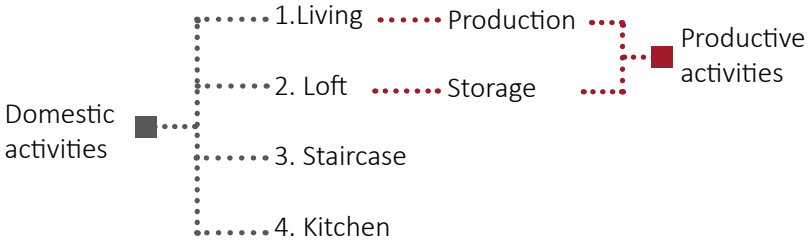
CASE M3 | Karlsson, 2009

Type 2 P St

Home + Production + Retail

Name : Shenaz's House
Location : Tever Nagar, Dharavi
Tenure : Unclear
Industry : Tailoring jeans, embroidery and storing plastic to be recycled.
Type of Intervention : User Intervention

Activity mapping



The room is used for tailoring jeans,emroidery, sleeping and eating. The kitchen counter is also part of the same room, with no apparent partition. The loft upstairs is used for sleeping and to store plastic products to be sold to local recyclying industry. During monsoons, water can rise as high as a metre inside the work-home due to its low level. The loft then serves as the only dry space, filling all functions. Due to limitations of space in the work-home, the narrow alleyway adjacent the unit is used for doing laundry given better lighting and drainage conditions.

Scale: Unit

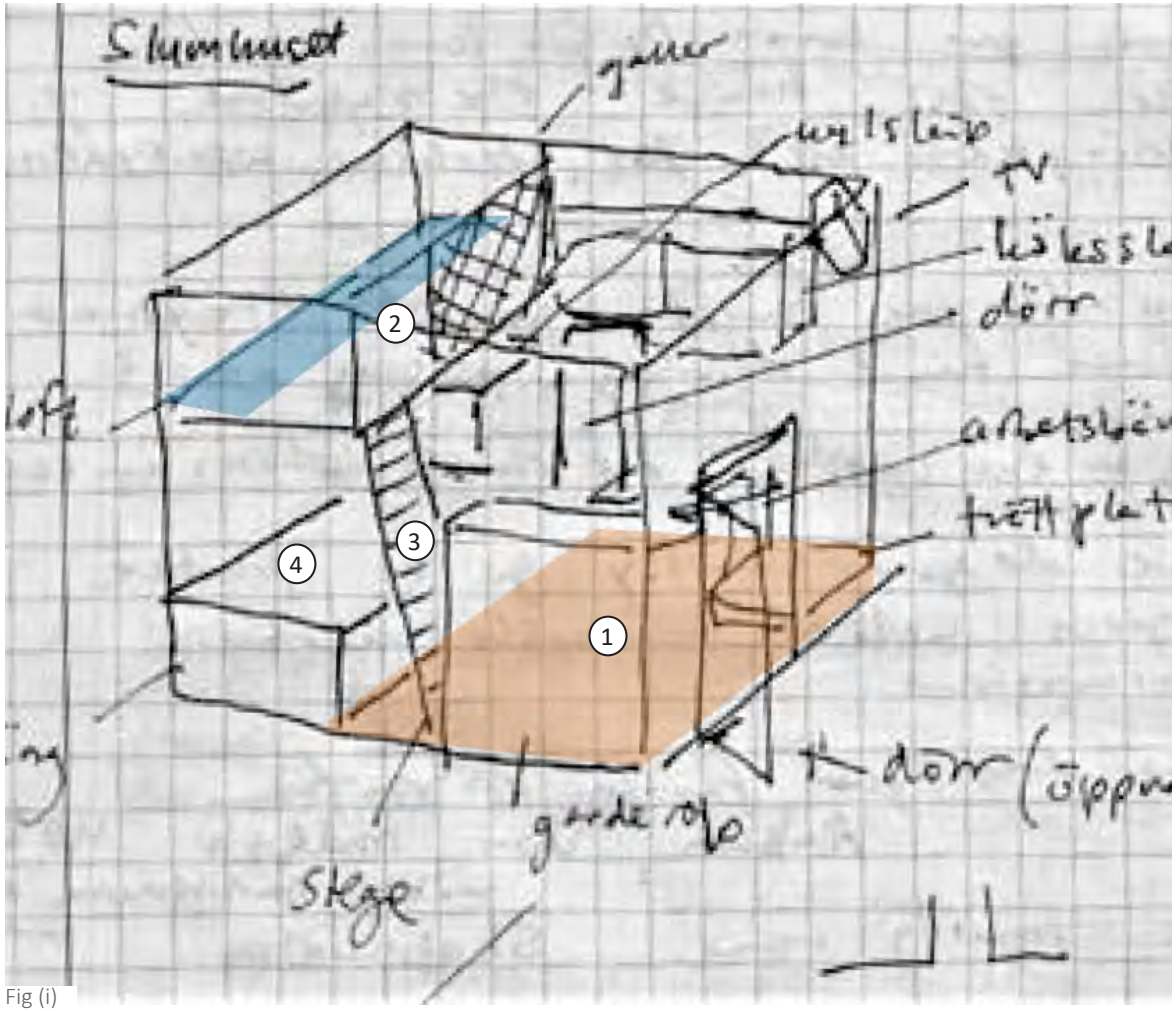


Fig (i)

A sketched view of Shenaz's house with a floor space of approximately 10 sq.m.

(i) Base image : from Karlsson, M. (2008). Two Homes. In Lantz, M., & Habib Engqvist, J. (Eds.). *Dharavi: Documenting Informalities.* Royal University College of Fine Arts, Art and Architecture.

Scale: Neighbourhood

Fig (ii)

A view of Shenaz's neighbourhood taken from roof of the nearby SPARC building.

Physical Infrastructure

Water- Unclear

Sewage- Unclear

Toilet- Unclear

Electricity- They pay 100 rupees to the government office for electricity every month.

Access- The neighbourhood appears to be serviced by narrow roads.

(ii) Base image : from Karlsson, M. (2008). Two Homes. In Lantz, M., & Habib Engqvist, J. (Eds.). Dharavi: Documenting Informalities. Royal University College of Fine Arts, Art and Architecture.

Information on physical infrastructure derived from Karlsson, M. (2008). Two Homes. In Lantz, M., & Habib Engqvist, J. (Eds.). Dharavi: Documenting Informalities. Royal University College of Fine Arts, Art and Architecture.

Fig (iii)

Since the work-home lacks windows and a ventilation system, an old table fan is placed by a barred opening for better ventilation.

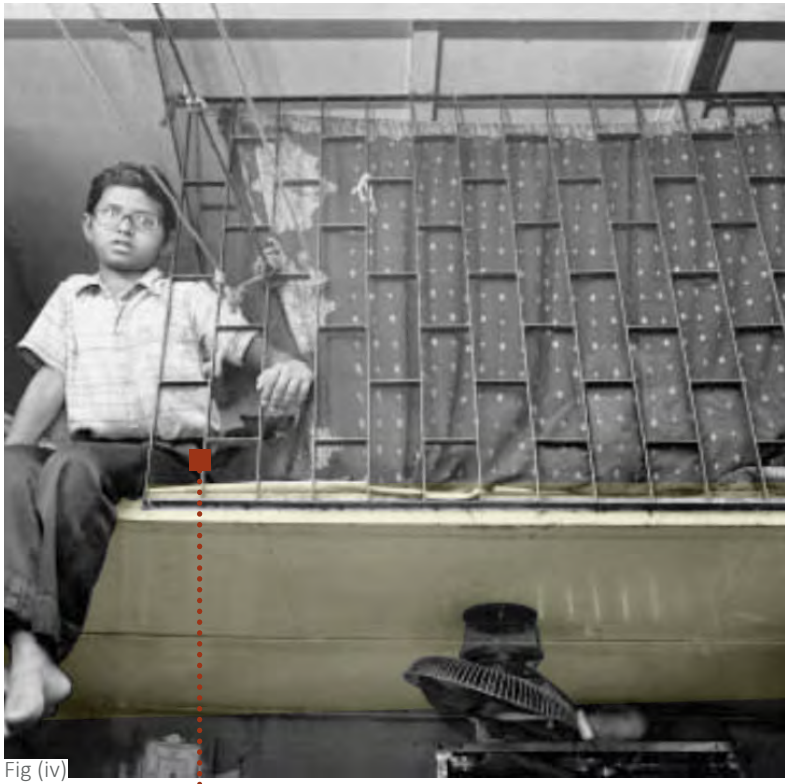


Fig (iv)

The loft above is used for sleeping. A metal grill is used to seperate the space.

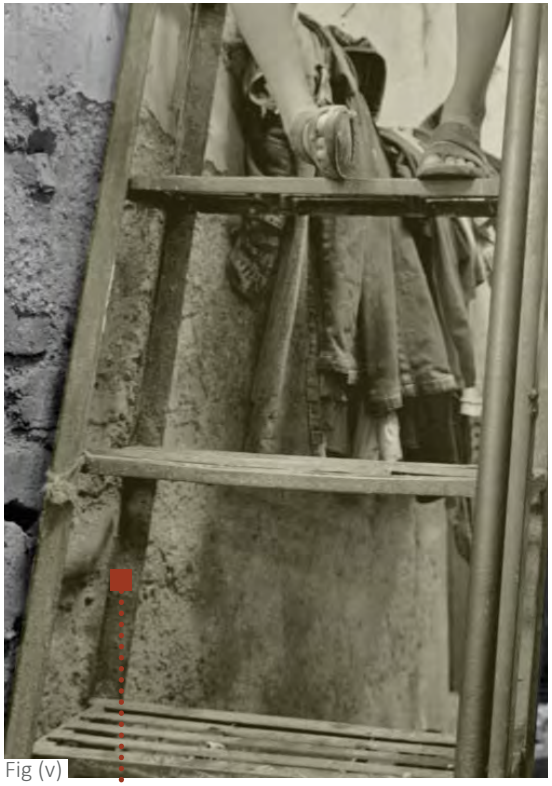


Fig (v)

A metal staircases used to access upper floors.

(iii), (iv), (v) Base images : from Karlsson, M. (2008). Two Homes. In Lantz, M., & Habib Engqvist, J. (Eds.). Dharavi: Documenting Informalities. Royal University College of Fine Arts, Art and Architecture.

Built form and spatial characteristics

Fig (vi)

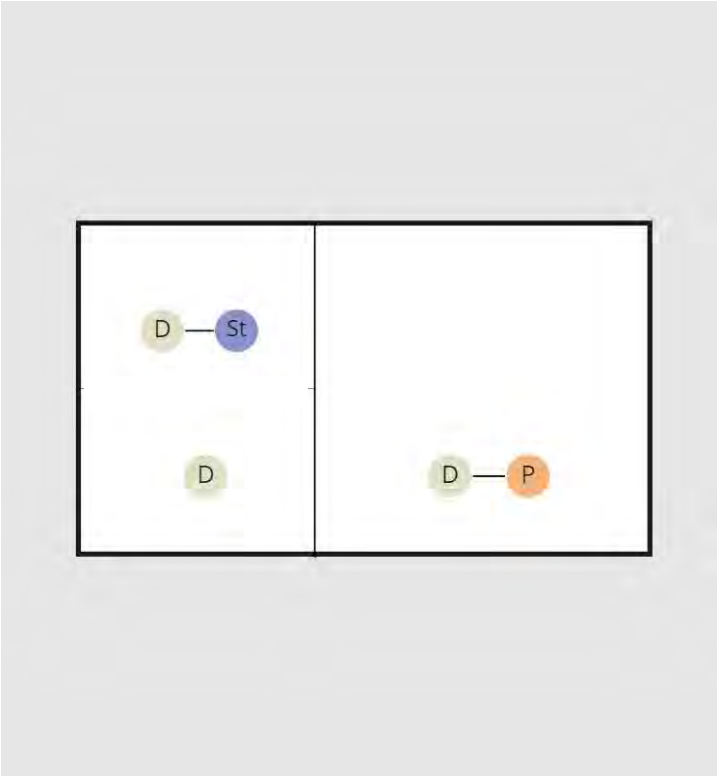
Fig (vi)

The sleeping loft is also used to stote the plastic products before they are sold to the recycling industry.

Fig (vii)

The narrow alley right outside Shenaz's house. The electricity meter in Fig (vi) is placed outside their homes towards the alley.

Spatial Schematic



(vi), (vii) Base images : from Karlsson, M. (2008). Two Homes. In Lantz, M., & Habib Engqvist, J. (Eds.). Dharavi: Documenting Informalities. Royal University College of Fine Arts, Art and Architecture.

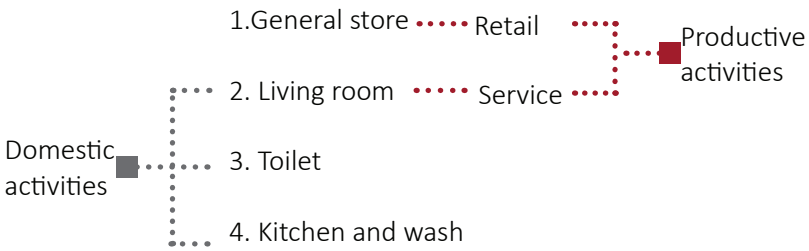
CASE M4 | CRIT, 2011

Type 2 R S

Home + Retail + Service

Name : Ibrahim Bhai
Location : Bharat Nagar
Tenure : Owner occupancy
Industry : Retail and Tuition class
Type of Intervention : User Intervention

Activity mapping



The retail activity remains isolated from the rest of the domestic activities that take place in the above floors. The tuition space in the first floor overlaps with the other activities in the space such as living, cooking and sleeping.

Scale: Building

Fig (i)

A section mapping the different types of productive activities within Ibrahim Bhai's work-home.

(i) Base Image : 2.5, image D from CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis.* World Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf

Scale: Building

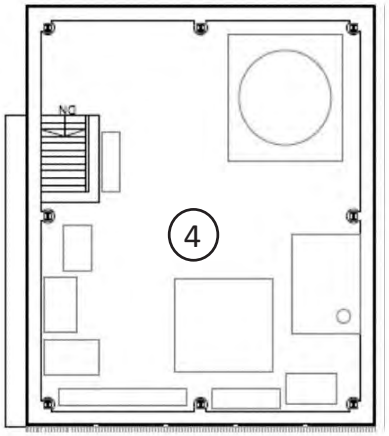


Fig (ii)

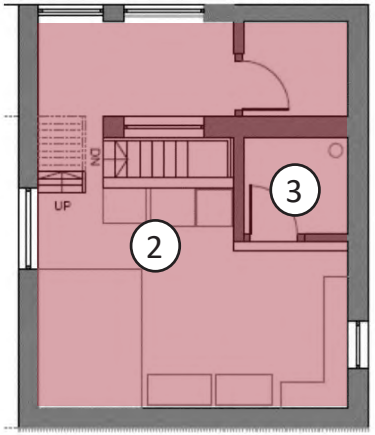


Fig (iii)

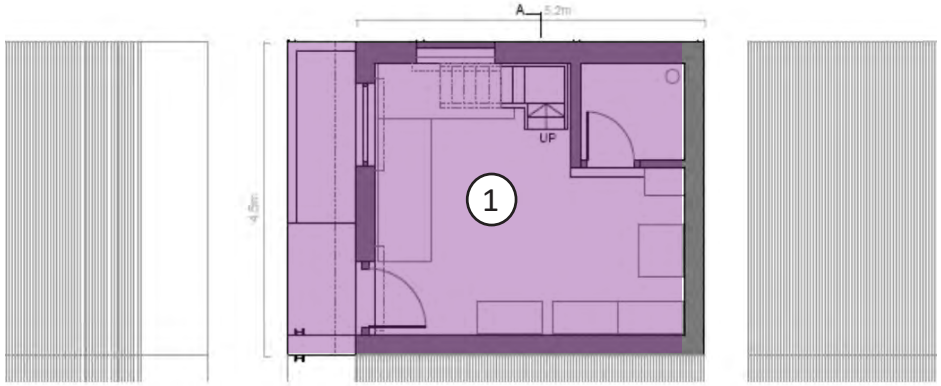


Fig (iv)

(ii) Terrace plan, (iii) First floor plan, (iv) Ground floor plan of Ibrahim Bhai's work-home.

Scale: Neighbourhood

Physical Infrastructure

Water- Unclear

Sewage- Drainage line runs along the street.

Toilet- Bath area on first two floors, toilet on first floor and a mori on the terrace.

Electricity- Indicated through photographs.

Access- Corner plot, streets on two sides of the plan. Streets maintained by BMC. Behind is a small service alley where drains are laid.

(ii), (iii), (iv) Base Image : 2.5, images A, B and C from CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis.* World Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf

Information on physical infrastructure and spatial location derived from CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis.* World Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf

Built form and spatial characteristics

Fig (v)

Load-bearing brick walls.

A bed laid along the walls used for sleeping as well as seating during class and other activities.

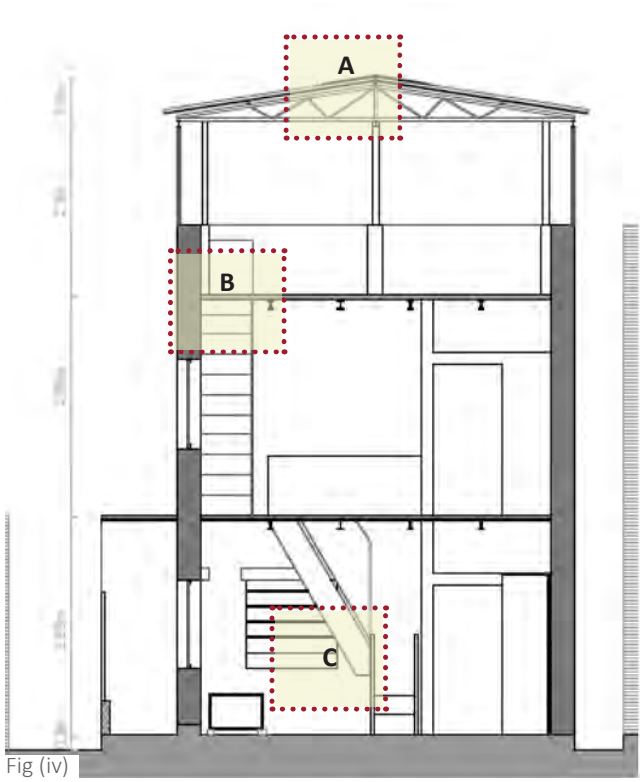


Fig (iv)

A. Corrugated galvanized iron sheet roofing with metal supports
B. 5” x 3” I- sections, above them are 3” wide T -sections between which are kota stones.
C. M.S Staircases.

(v), (vi) Base image : from CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis.* World Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf

Built form and spatial characteristics

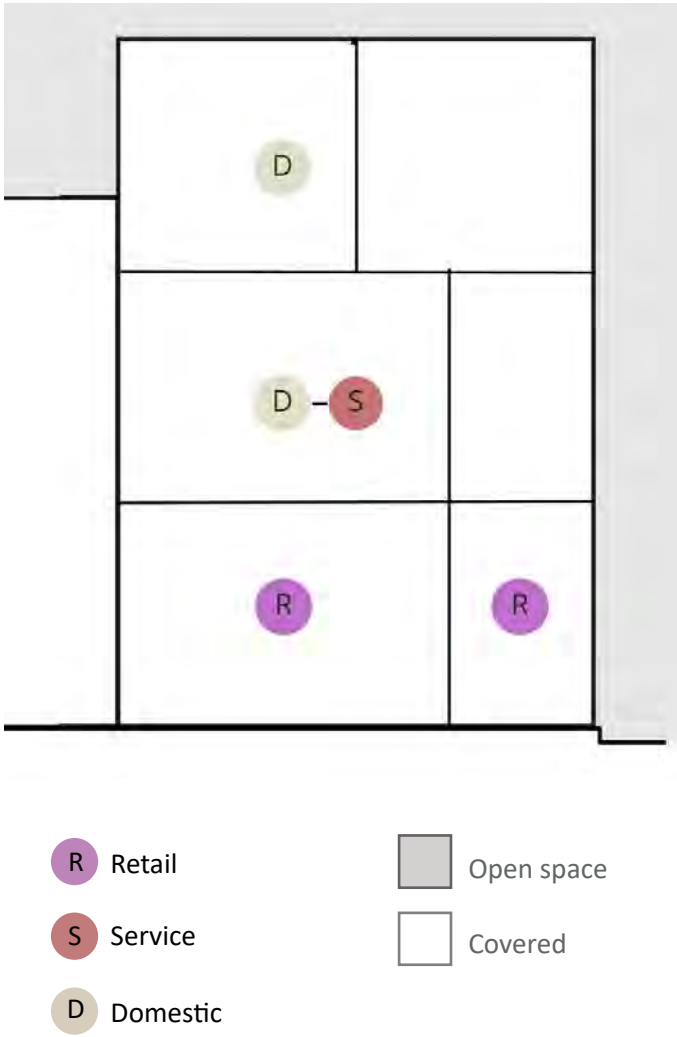
Fig (vii)

Fig (viii)

Fig (ix)

Houses are organised with narrow alleyways between them. Nearly all the houses are wet construction G+1 or G+2; the terraces have often been covered using AC sheets, GI sheets or tarpaulin. The houses were made incrementally as families grew.

Spatial Schematic



(vii), (viii), (ix) Base images : from CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis.* World Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf

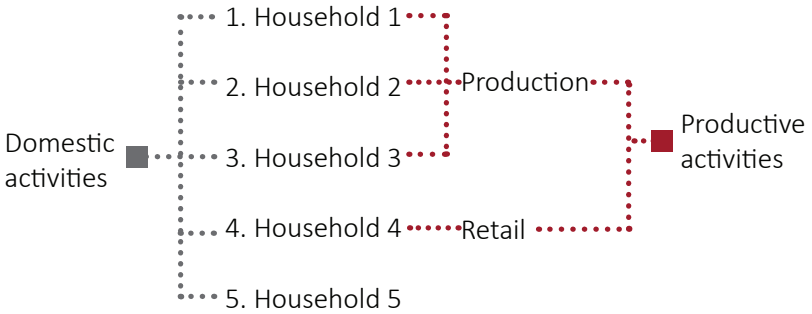
CASE M5 | Garg, Paul & Himanshu, 2018

Type 2 P R

Home + Production + Service

Name : Mehboob Haveli
Location : Chanderi
Tenure : Owner occupancy
Industry : Beedi making, Weaving and Tailoring.
Type of Intervention : User Intervention

Activity mapping



Mehboob haveli houses five distinct households. Households 1 and 2 earn their primary income through weaving on the loom, and bidi-making. Household 3 has a perfume shop running through the haveli itself. Households 4 and 5 reportedly do not undertake any productive activity at home.

Scale: Building

Fig (i) Fig (ii)

Ground floor plan (i) and first floor plan (ii) mapping productive activites across different households.

(i), (ii) Base images : from Garg, M., Paul, S., & Himanshu. (2018). *Dwelling Study of Mehboob Haveli* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Scale: Building

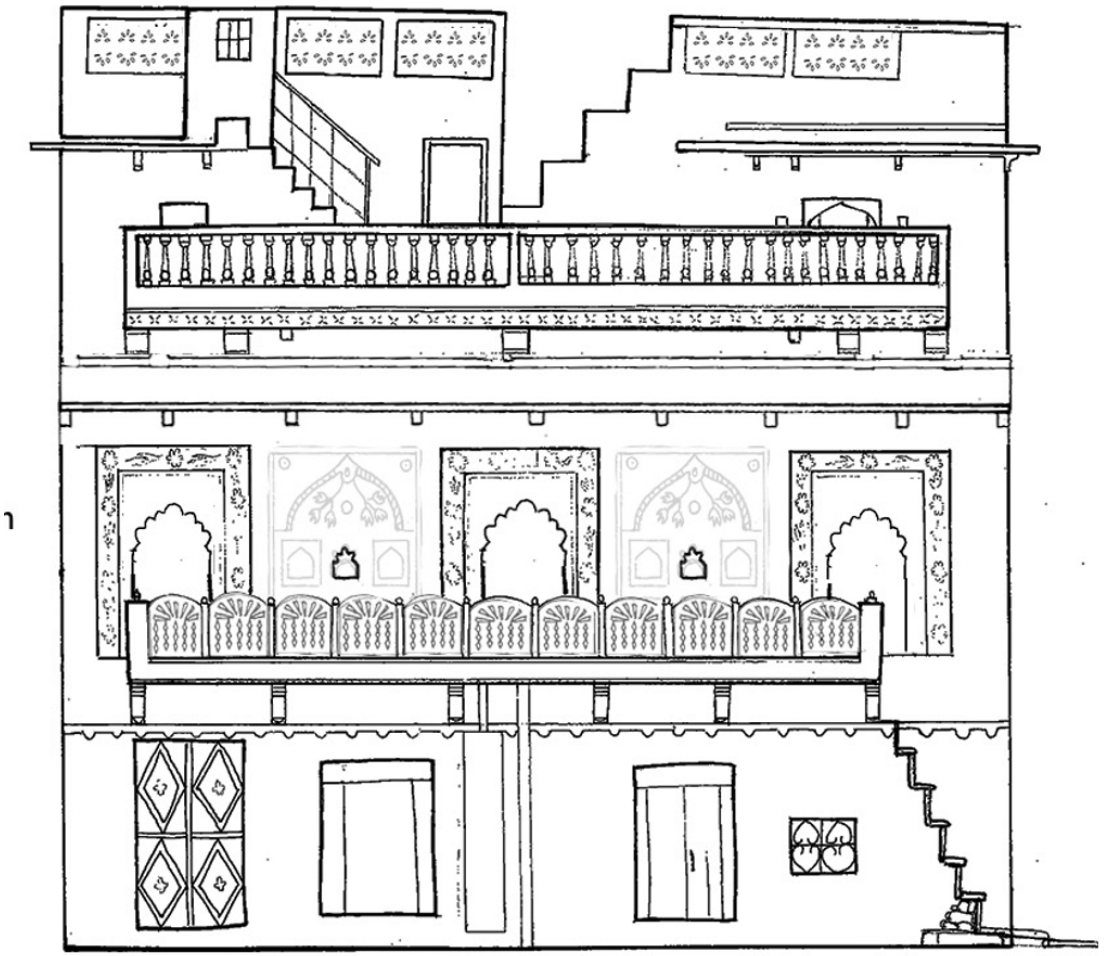


Fig (iii)

An elevation of Meboob haveli. The building is 100 years old and is occupied by 5 households across different floors.

Physical Infrastructure

Water-Unclear

Sewage-Unclear

Toilet- Indicated in the floor plan; unclear if all households have access.

Electricity- Unclear

Access- Present, conditions unclear

(iii) Base image : from Garg, M., Paul, S., & Himanshu. (2018). *Dwelling Study of Mehboob Haveli* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Information on physical infrastructure derived from Garg, M., Paul, S., & Himanshu. (2018). *Dwelling Study of Mehboob Haveli* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Fig (iii)

A space used for the prepration of thread for loom.

A spinning wheel used used to prepare the loom.

Fig (iv)

A woman making beedis.

Fig (v)

Loom in use by household 2.

(iii), (iv), (v) Base images : from Garg, M., Paul, S., & Himanshu. (2018). *Dwelling Study of Mehboob Haveli* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Built form and spatial characteristics

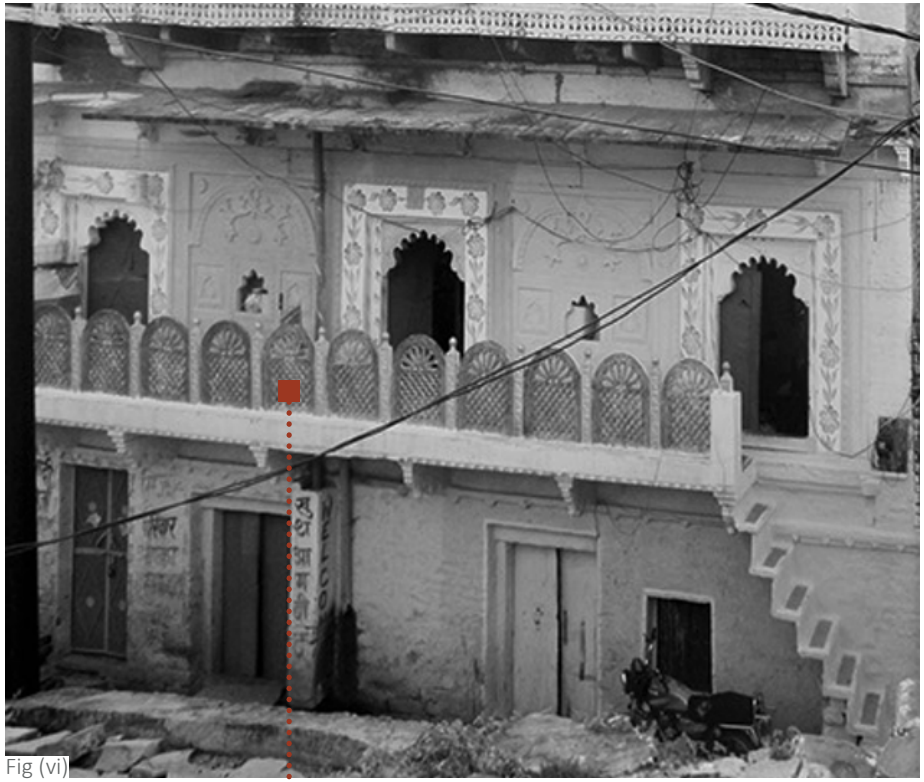
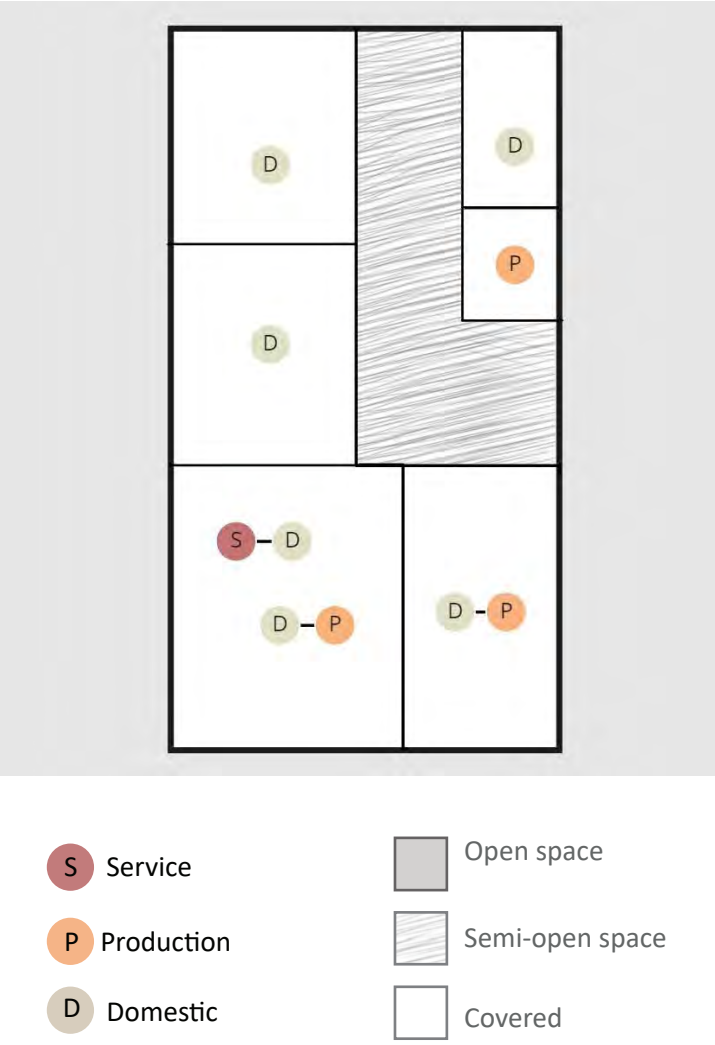


Fig (vi)

Intricate jaali details on facades of the building.

Spatial Schematic



(vi) Base image : from Garg, M., Paul, S., & Himanshu. (2018). *Dwelling Study of Mehboob Haveli* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

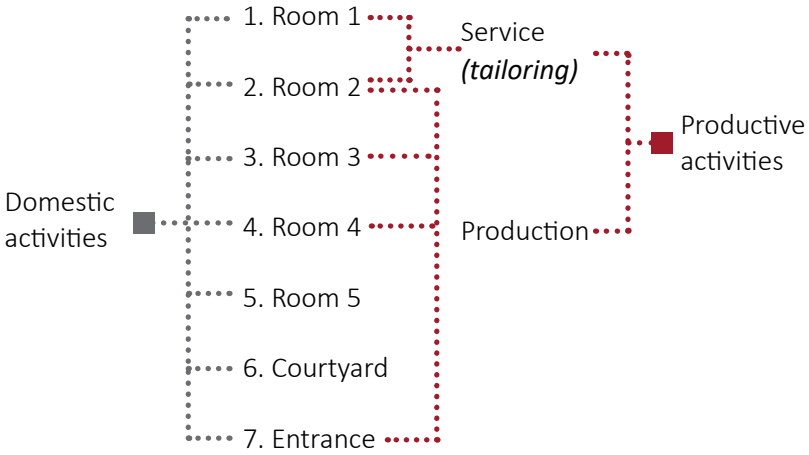
CASE M6 | Mathankar, Karsoliya & Siva, 2018

Type 2 P S

Home + Production + Service

Name : Ghosi residence
Location : Chanderi
Tenure : Owner occupancy
Industry : Beedi making and tailoring
Type of Intervention : User Intervention.

Activity mapping



Tailoring is carried out in rooms 1 and 2. Beedi making is carried out in rooms 2, 3, 4 and additionally at the entrance, 7. The work-home transforms through the day with domestic activities like cooking, eating and sleeping taking place in the same space as productive activities are. Users appear to maneuver the work-home boundary by configuring schedules.

Scale: Building

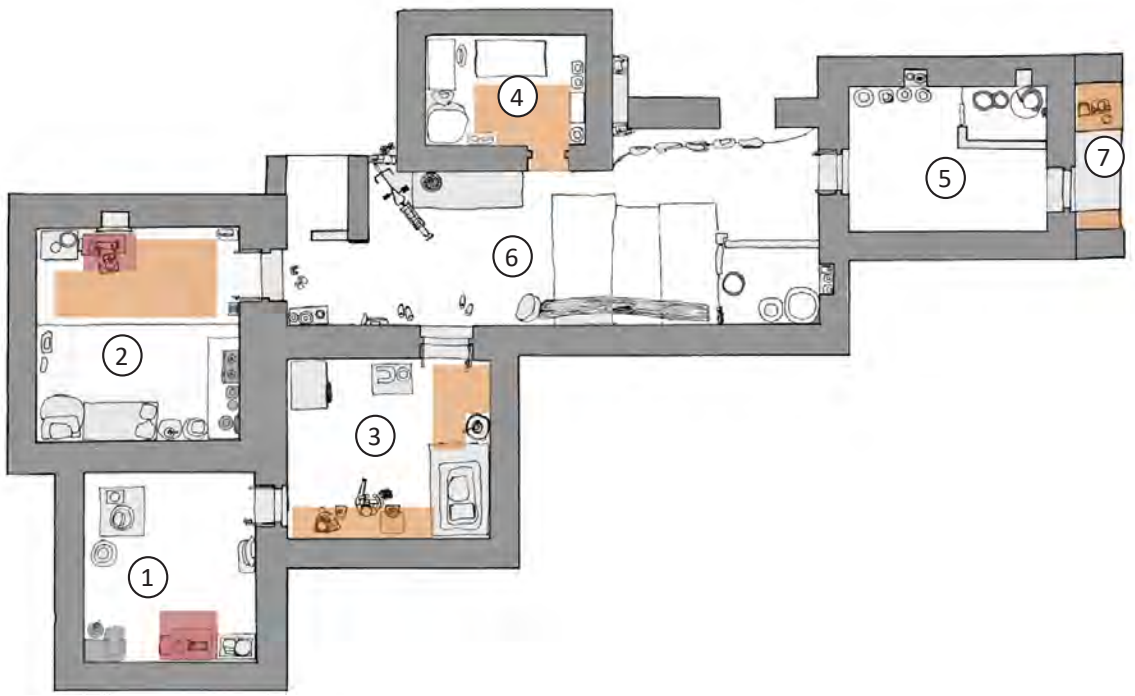


Fig (i)

Ground floor plan mapping the productive activities within the Ghosi residence.

(i) Base image : from Mathankar, R., Karsoliya, M., & Siva, ESS. (2018). *Dwelling Study: The Ghosi Residence* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Scale: Building

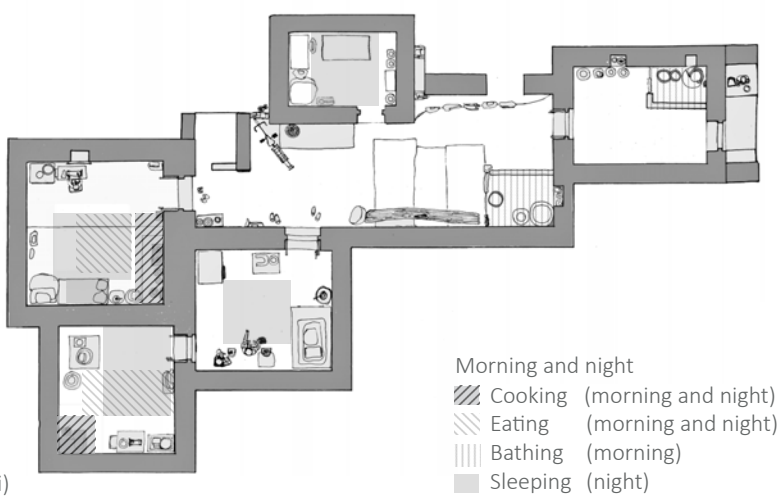


Fig (ii)

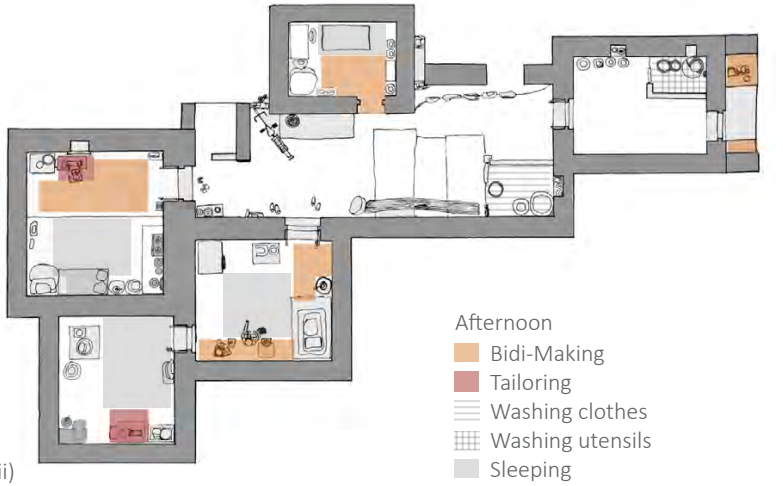


Fig (iii)

Floor plans mapping temporal and spatial footprints of various domestic and productive activities in the work-home through the day.

Physical Infrastructure

Water- Unclear

Sewage- Unclear

Toilet- Unclear

Electricity- Unclear

Access- Unclear

(ii), (iii) Base images : from Mathankar, R., Karsoliya, M., & Siva, ESS. (2018). *Dwelling Study: The Ghosi Residence* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Public Infrastructure Information derived from Mathankar, R., Karsoliya, M., & Siva, ESS. (2018). *Dwelling Study: The Ghosi Residence* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Fig (iv)

A raised floor level in Room 2 possibly separating area for cooking and sleeping from space for beedi making and tailoring.

The building is a single storey stone structure with thatched roofing. Niches in the walls are used effectively for storage.

Fig (v)

The house is occupied by two brothers and their families. The central courtyard is acts as an intergral space for interaction.

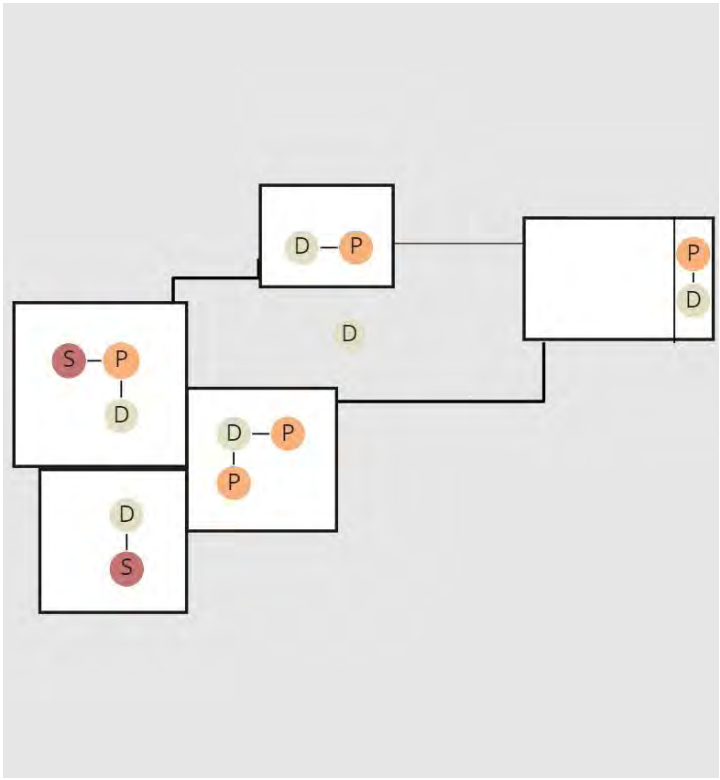
(iv), (v) Base images : from Mathankar, R., Karsoliya, M., & Siva, ESS. (2018). *Dwelling Study: The Ghosi Residence* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Built form and spatial characteristics

Fig (vi)

The sit-out space at the entrance is also used for beedi production during the day.

Spatial Schematic



(vi) Base image : from Mathankar, R., Karsoliya, M., & Siva, ESS. (2018). *Dwelling Study: The Ghosi Residence* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

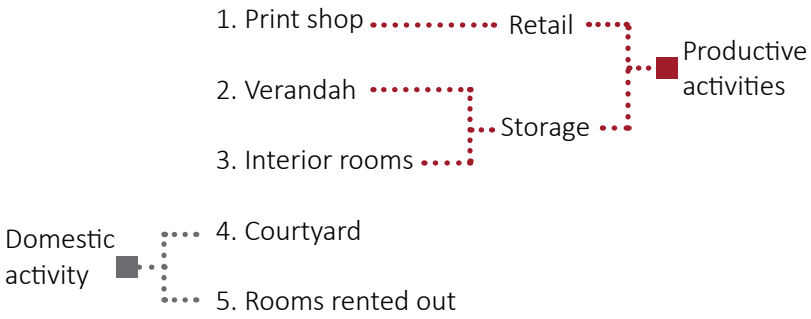
CASE M7 | Dhanraj et al., 2018

Type 2 R St

Home + Retail + Storage

Name : Purohit house
Location : Chanderi
Tenure : Owner occupancy and Tenancy
Industry : Print shop and storage for other buisnesses.
Type of Intervention : User Intervention

Activity mapping



Ground floor of the work-home is occupied by the print shop and storage rooms. The upper floor has rooms for family members and some rooms that are rented out to two different families. Work-home boundary is maneuvered hence mainly by a spatial separation across floors.

Scale: Building

Fig (i)

Ground floor plan mapping productive activities within the Purohit house.

(i) base image : from Dhanraj, K., Krishna, M., Sharma, A. & Anil, V. (2018). *Dwelling study - The Purohit House* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Scale: Building

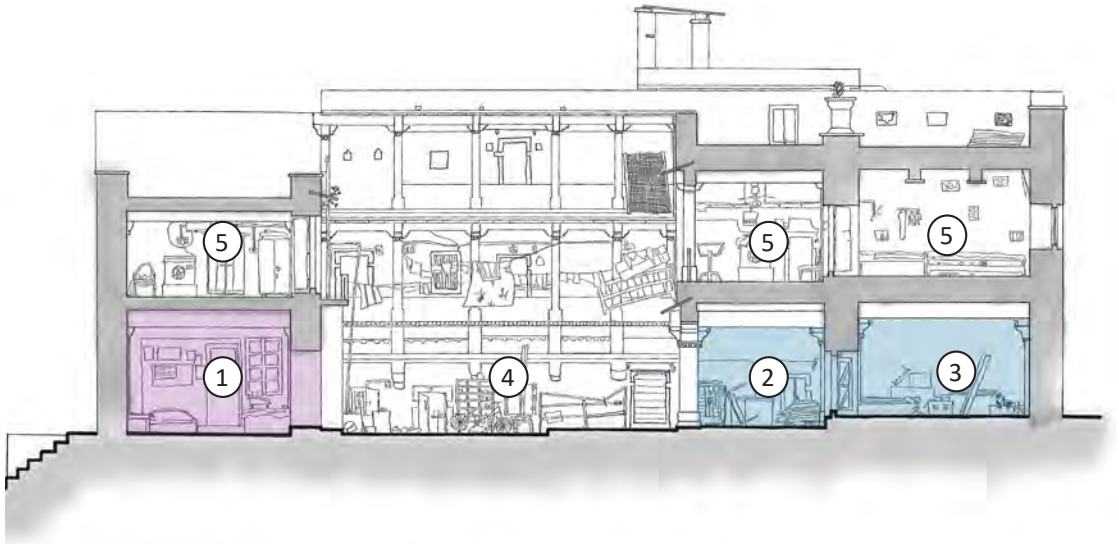


Fig (ii)

The building is a double storey courtyard type structure that is accesed from the main road.

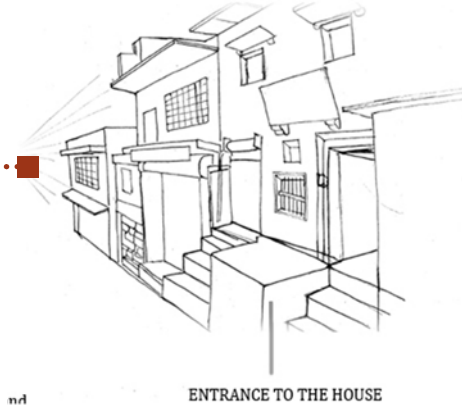


Fig (iii)

The above images show a section(ii) and a view(iii) of the purohit house. The section also maps the productive activities within the work-home.

Physical infrastructure

Water- Unclear

Sewage- Unclear

Toilet- bath and toilet on first and second floor.

Electricity- Unclear

Access- Unclear

(ii), (iii) base images : from Dhanraj, K., Krishna, M., Sharma, A. & Anil, V. (2018). *Dwelling study - The Purohit House* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Information on physical infrastructure derived from Dhanraj, K., Krishna, M., Sharma, A. & Anil, V. (2018). *Dwelling study - The Purohit House* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Fig (iv)

The verandah on ground floor of the work-home is used to store equipment for other buinesses run by the family. The rooms in the back are also used for storage.

Fig (v)

The work-home rests on a raised plinth adjacent to the road.

The work-home is built using stone framework and wooden window frames .

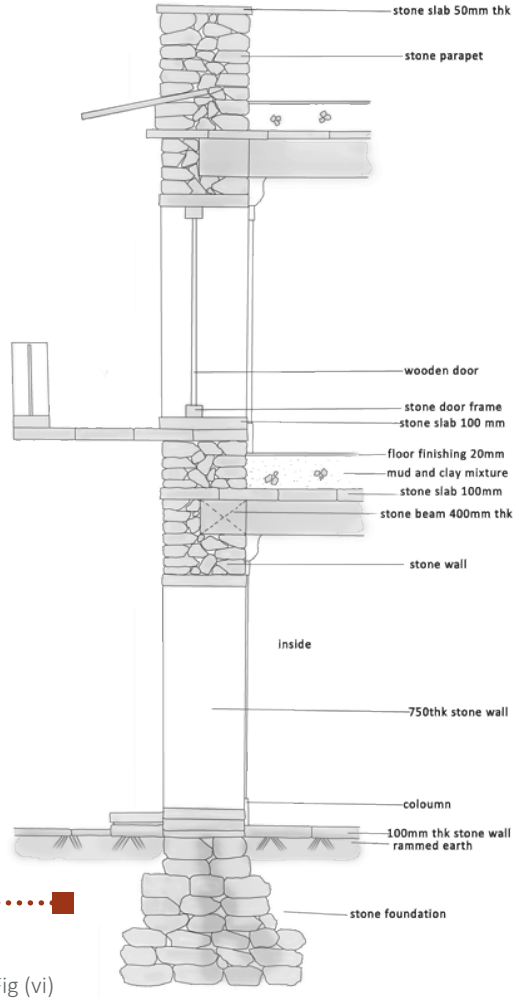


Fig (vi)

(iv), (v), (vi) base images : from Dhanraj, K., Krishna, M., Sharma, A. & Anil, V. (2018). *Dwelling study - The Purohit House* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

Built form and spatial characteristics

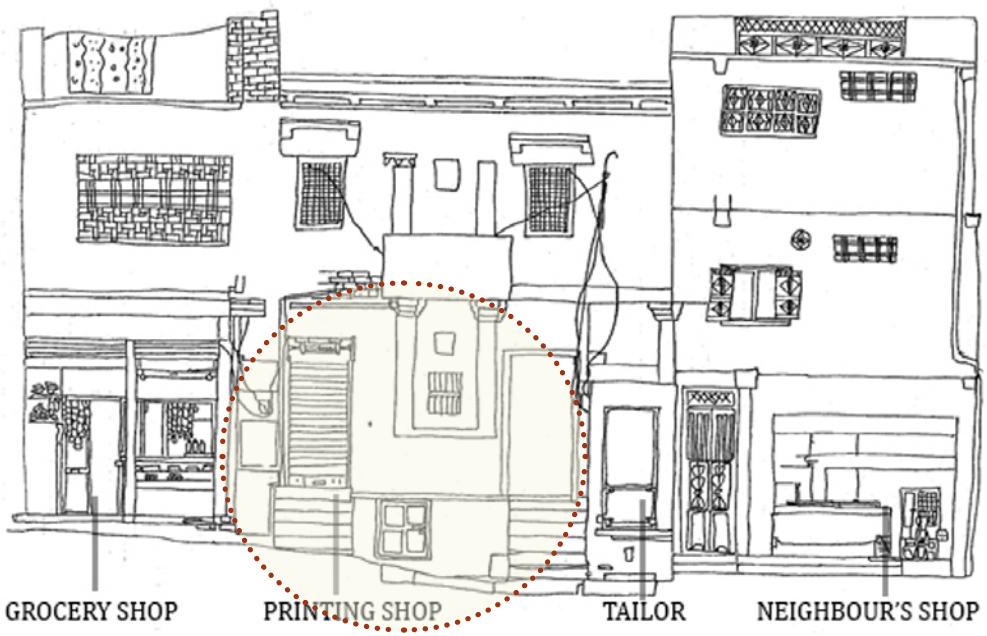
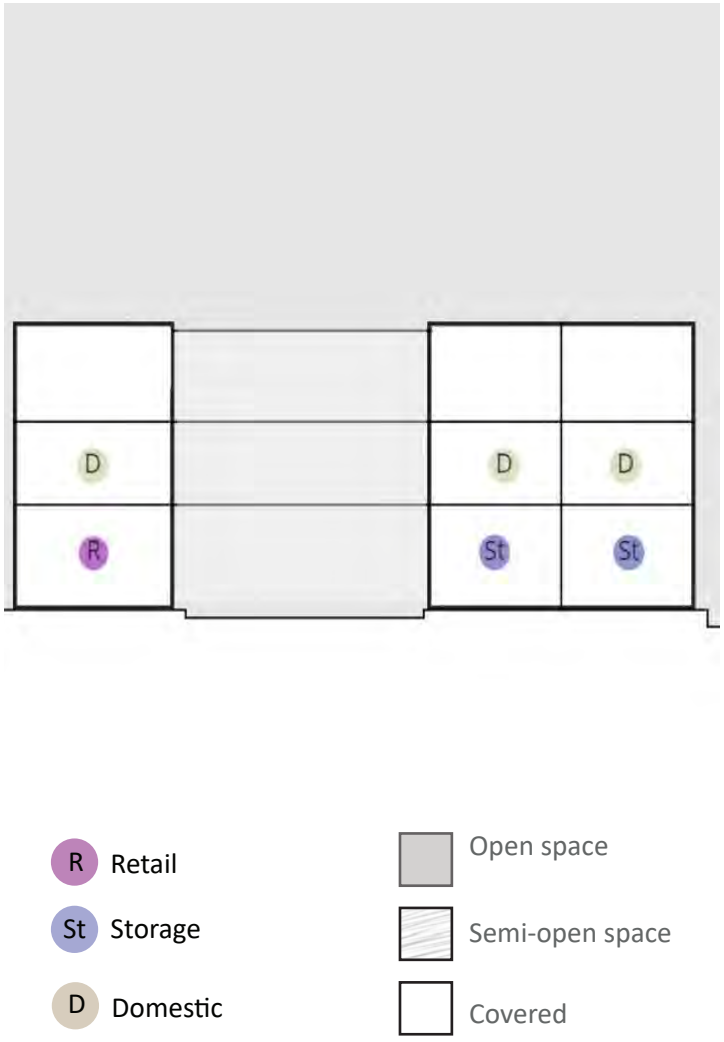


Fig (vii)

The print shop is on the main access road. Fig (vii) shows part of a streetscape with various other commercial establishments such as a grocery store, tailor and a neighbour's shop in the vicinity of the print shop.

Spatial Schematic



(vii) base image : from Dhanraj, K., Krishna, M., Sharma, A. & Anil, V. (2018). *Dwelling study - The Purohit House* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.

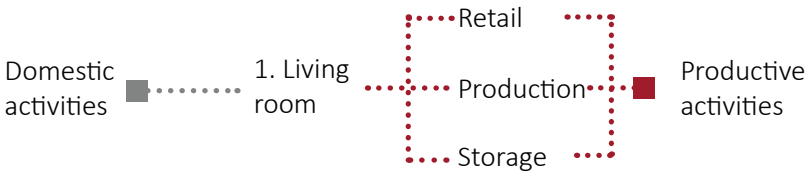
CASE M8 | Girmay, 2015

Type 2 P St

Home + Production + Retail + Storage

Name : Mrs Tsehay Desalegn's house
Location : Addis-Ketema, Ethiopia
Tenure : Tenancy (kebele* house)
Industry : Detergent repackaging and selling
Type of Intervention : User Intervention

Activity mapping



Mrs Tsehay uses her single room work-home to carry out domestic and productive activities. She uses the center of her living room to prepare the detergent and the corner spaces to store the prepared products as indicated in the visual. She maneuvers the work-home boundary by reconfiguring space as well as her schedule. Additionally, due to lack of space she stores bottles over her tin roof, and also under the furniture. The overall work-home measures 54 sq.m. and has a single room.

Scale: Building

Fig (i)

A view showing Mrs. Tsehay undertaking productive activities in her work-home.

(i) base image : from Girmay, A. (2015). E*xploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full

*'Kebele' means local government. It is forbidden for tenants to undertake any renovation or repair in kebele houses, unless the situation is life threatening (Girmay, 2020).

Scale: Building

A view of the neighborhood streets near Mrs Tsehay ’s work-home.

Physical Infrastructure

Water- Unclear

Sewage- Unclear

Toilet- Unclear

Electricity- Unclear

Access- Unclear

(ii) base image : from Girmay, A. (2015). E*xploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master’s Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full

Public Infrastructure Information derived from GIRMAY, Alemea. 2020. “Exploring the use of domestic spaces for home- based income generation-Annexure.” case 4

Fig (iii)

Living room when being used for domestic activities.

"Accommodating this job at home is a bit risky (due to the chemical from the detergent). Besides as you can see I only have a single room and when you think six people is added to this you can imagine yourself how difficult it is to accommodate the job at the dwelling. When I am about to start the job I have to send my little kid (4 years old) to play outside, or else I cannot work when she is at home, since I am afraid of the chemical for health. Yet, accommodating this job at home is a choice between keeping your families stay alive or endure the risks with taking some care."

"I do this job in the main living room. All I have to do this job is to clear the living space and bring the working tools, then sitting on the sofa I can pour the detergent soup in to the little bottles. I use the sofa in the main living room to put my staff and store the poured detergent before I take them to my customers. Besides, I put the bottles under the sofa."

(iii) base image : from Girmay, A. (2015). E*xploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full

All quotes from Girmay (2020).

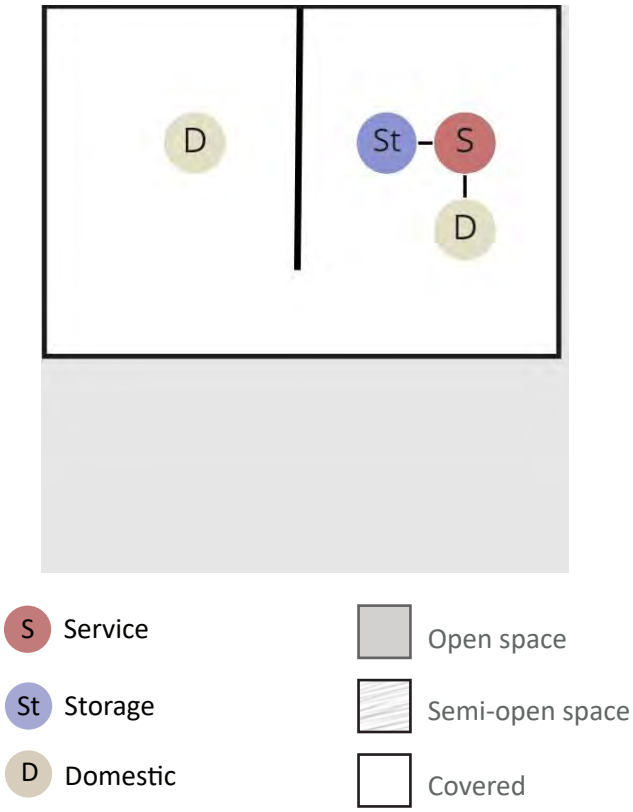
Built form and spatial characteristics

Fig (iv)

Tin sheets used on the exterior surface of the house.

The roof is used to store empty plastic bottles which Mrs Tsehay uses for repackaging detergent

Spatial Schematic



(iv) base image : from Girmay, A. (2015). E*xploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full

CASE M9 | Huba & Yohannes, 2015

Type 3 R S St

Home + Retail + Service + Storage

Name : Buguruni Mnyamani Settlement
Location : Dar es Salaam, Tanzania
Tenure : Owner occupancy and tenancy.
Industry : Garment shop, video showing and shop
Type of Intervention : User Intervention

Activity mapping

The productive activities of the work-home are concentrated towards the outer periphery of the plot. Domestic and productive activities overlap in semi-open spaces like the verandah and yard.

Scale: Building

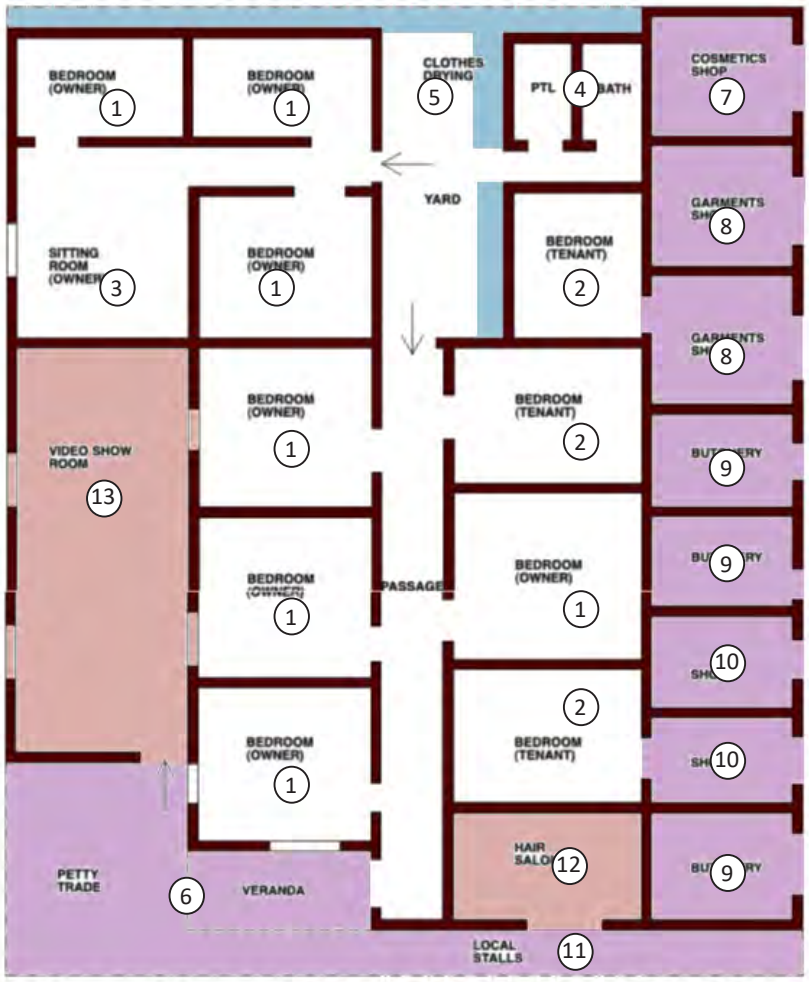


Fig (i)

A plan mapping different types of productive activities within a work-home in Buguruni Mnyamani.

(i) Base image : Fig 3 from Huba, N., & Yohannes, K. (2015). Space Use and Environmental Effects of Home-Based Enterprises. The Case of Buguruni Mnyamani Informal Settlement, Dar Es Salaam, Tanzania. *International Journal of Humanities and Social Science, Vol. 5,* No. 4(1), 7-19

Scale: Building

Fig (ii)

A view of a work-home with a verandah extended over the space adjacent to the unit.

Physical infrastructure

Water-Unclear

Sewage- Unclear

Toilet- Indicated in the floor plan

Electricity- Unclear

Access- A 7m wide road on the north and a 3.5m wide access path on the south.

(ii) Base image: Fig 2 from Huba, N., & Yohannes, K. (2015). Space Use and Environmental Effects of Home-Based Enterprises. The Case of Buguruni Mnyamani Informal Settlement, Dar Es Salaam, Tanzania. *International Journal of Humanities and Social Science, Vol. 5,* No. 4(1), 7-19

Public Infrastructure Information derived from from Huba, N., & Yohannes, K. (2015). Space Use and Environmental Effects of Home-Based Enterprises. The Case of Buguruni Mnyamani Informal Settlement, Dar Es Salaam, Tanzania. *International Journal of Humanities and Social Science, Vol. 5,* No. 4(1), 7-19

Built form and spatial characteristics

Fig (iii)

Verandahs on the outer periphery of the building are usually used for commercial activities given their adjacency to the road. The above image shows tea being sold in the extended verandah.

Fig (iv)

These semi open areas are shaded with corrugated sheets as roofing, supported on wooden poles.

Fig (v)

Crates of drinks and bags of maize stored along the internal corridors of these work-homes. Such type of storage activity reduces available space for movement.

(iii), (iv), (v) : Base images : Fig 1, Fig 8, Fig 7 respectively from Huba, N., & Yohannes, K. (2015). Space Use and Environmental Effects of Home-Based Enterprises. The Case of Buguruni Mnyamani Informal Settlement, Dar Es Salaam, Tanzania. *International Journal of Humanities and Social Science, Vol. 5,* No. 4(1), 7-19

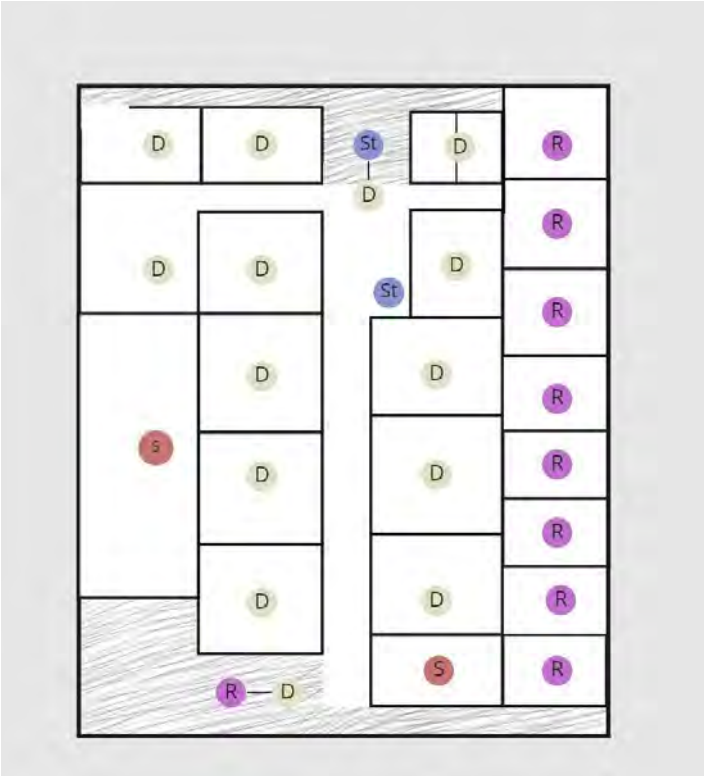
Built form and spatial characteristics

Fig (vi)

Fig (vii)

Some repair shops use the yard to store two-wheelers and repair parts. This space is also used for drying clothes and other such domestic activities that need open space.

Spatial schematic



S Service

R Retail

D Domestic

Open space

Semi-open space

Covered

(vi), (vii) Base images : Fig 6, Fig 5 respectively from Huba, N., & Yohannes, K. (2015). Space Use and Environmental Effects of Home-Based Enterprises. The Case of Buguruni Mnyamani Informal Settlement, Dar Es Salaam, Tanzania. *International Journal of Humanities and Social Science, Vol. 5,* No. 4(1), 7-19

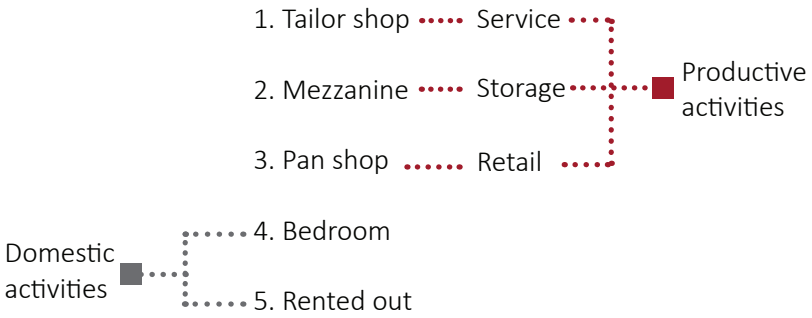
CASE M10 | CRIT, 2011

Type 3 R S St

Home + Retail + Service + Storage

Name : Hasan
Location : Behrampada, Mumbai
Tenure : Owner occupancy and tenancy
Industry : Tailoring service and pan shop
Type of Intervention : User Intervention

Activity mapping



Hasan runs his tailor shop on the ground floor. The mezzanine is used for storage. He rents out a small part of the ground floor to a pan-wallah who runs his shop there. The first floor of the work-home is residential used by Hasan's family, and the second floor is residential given on rent.

Scale: Building

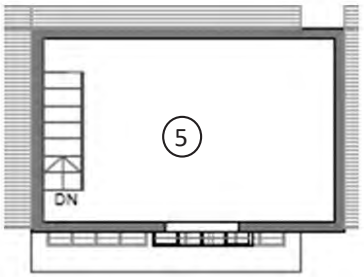


Fig (iii)

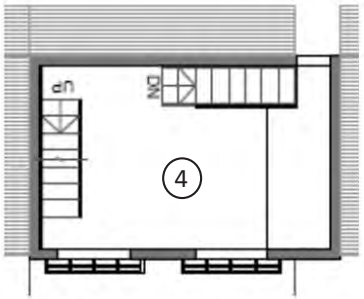


Fig (ii)

Fig (i)

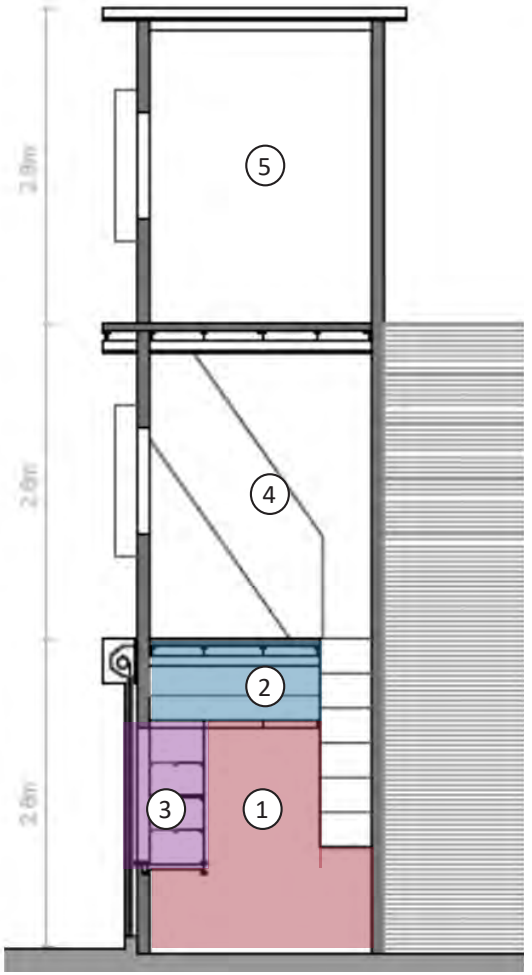


Fig (ii)

Ground floor plan(i), first floor plan (ii), second floor plan (iii) and section(iv) mapping the productive activities at Hasan's work-home.

(i), (ii), (iii), (iv) Base images : from CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis.* World Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf

Scale: Building

Fig (v)

An view of Hasan's work-home from the street.

Scale: Neighbourhood

Physical Infrastructure

Water- The area has water supply by the municipality and most houses have water meters.

Sewage- There are no sewers hence the waste water flows in open channels between houses covered with slabs.

Toilet- People go to defecate in the 8 public toilets in the vicinity or in the open ground opposite near the railway tracks.

Electricity- Available throughout the neighborhood.

Access- Available throughout the neighborhood.

(v) Base Image : from CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis.* World Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf

Public Infrastructure Information derived from CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis.* World Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf

Built form and spatial characteristics

Fig (vi)

The mezzanine on the ground floor is used to store the items from the tailoring service below.

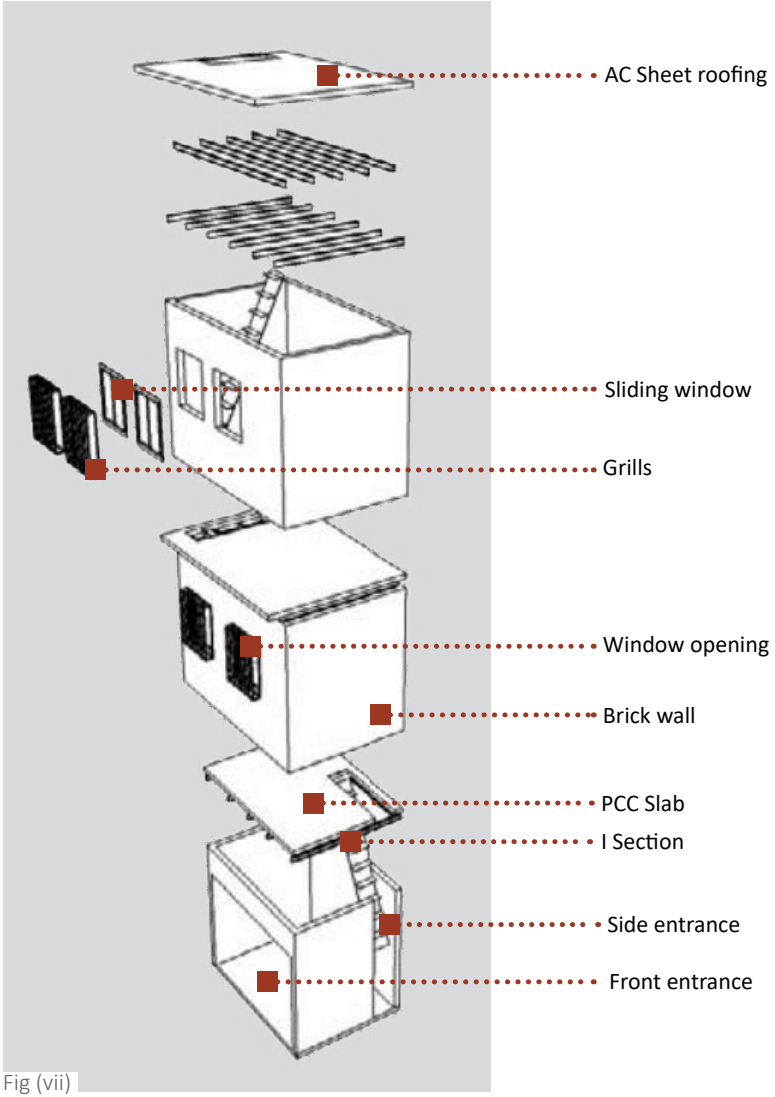


Fig (vii)

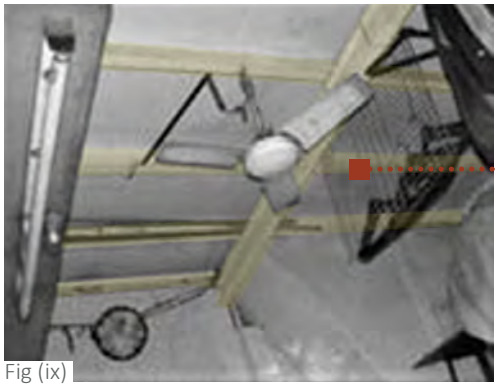
(vi), (vii) Base images : from CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis.* World Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf

Built form and spatial characteristics

Rolling shutter on the opening towards the road.

Smaller narrow alley.

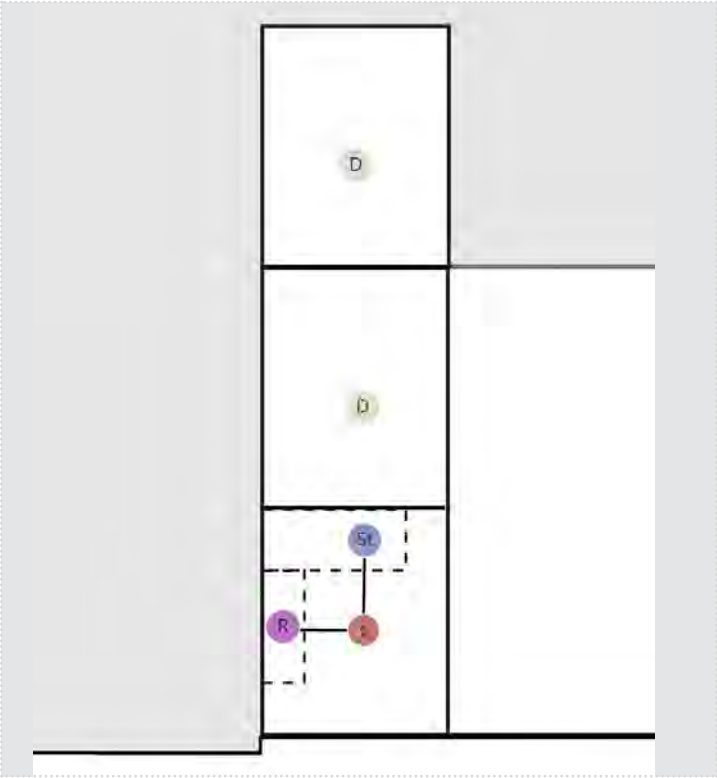
Fig (viii)



AC sheets supported on I-sections as the roof.

Fig (ix)

Spatial Schematic



R Retail

S Service

St Storage

D Domestic

Open space

Covered

(vii) Base Image by CRIT . 2010. " Informal Housing: Reducing Disaster Vulnerability Through Safer Construction I Book 1: Situation Analysis" by CRIT and world bank. 2.3. Part2. Image E.

(viii), (ix) Base images : from CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis.* World Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf

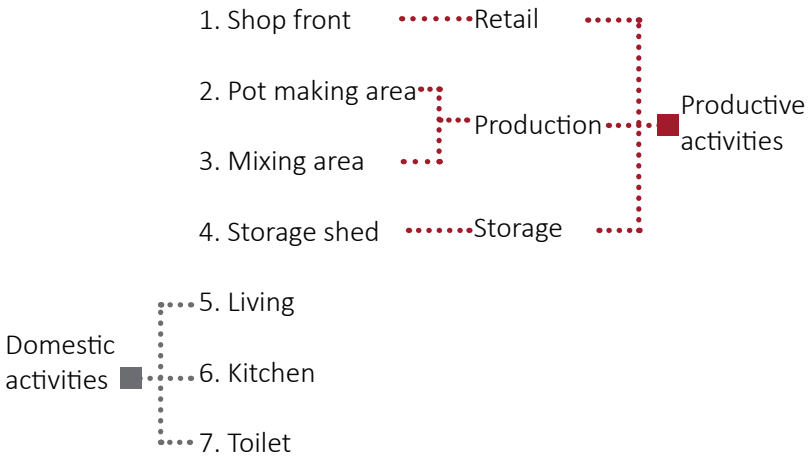
CASE M11| CRIT & JJ College of Architecture, 2010

Type 3 P R St

Home + Production + Retail + Storage

Name : Kumbharwada
Location : Dharavi, Mumbai
Tenure : Vacant Land Tenure/ Tenancy
Industry : Pottery
Type of Intervention : User Intervention

Activity mapping



Work-homes in Kumbharwada are flanked by parallel streets on both sides. One side of the work-home becomes retail-oriented and the other side becomes oriented to production. Both sides spill-over to unit-adjacent spaces, and utilise them efficiently. The middle of the work-home is typically dedicated to domestic activities.

Scale: Building

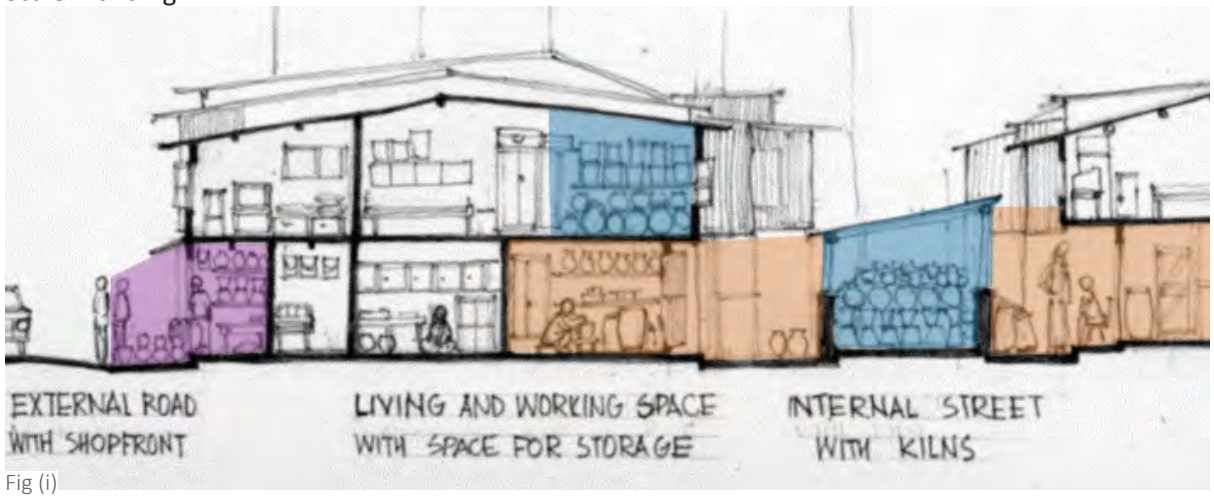


Fig (i)

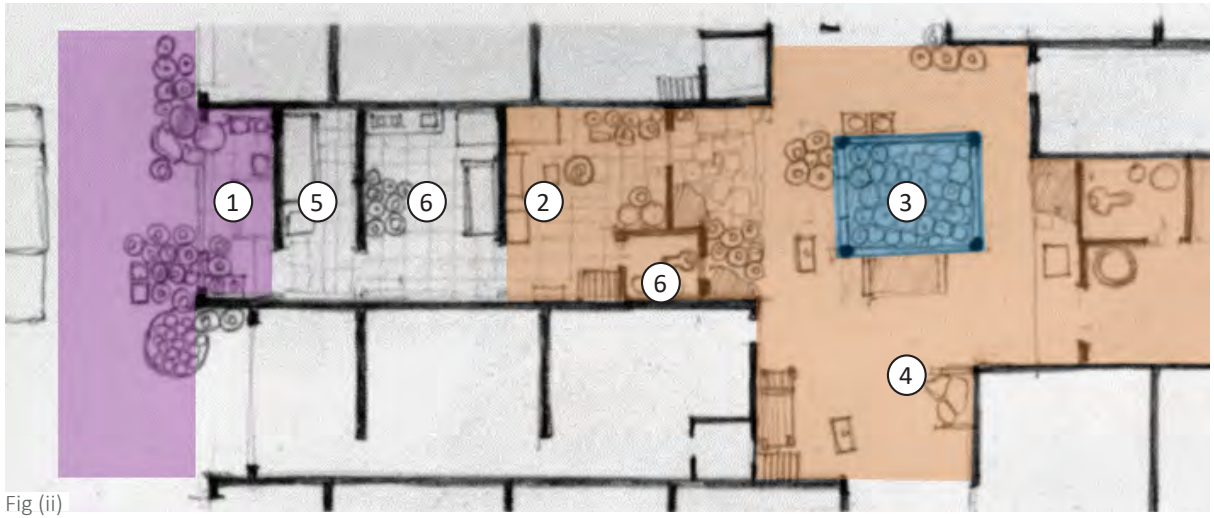


Fig (ii)

A section (Fig i) and plan (fig ii) mapping different types of productive activities in a work-home in Kumbharwada.

(i), (ii) base images : Fig 4 from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf.

Scale: Street/ Neighbourhood

Common internal street used for production and storage or pottery.

The steet facing side of the house serves as retail space.

Work-homes in Kumbharwada come together to create a specific street characteristic.

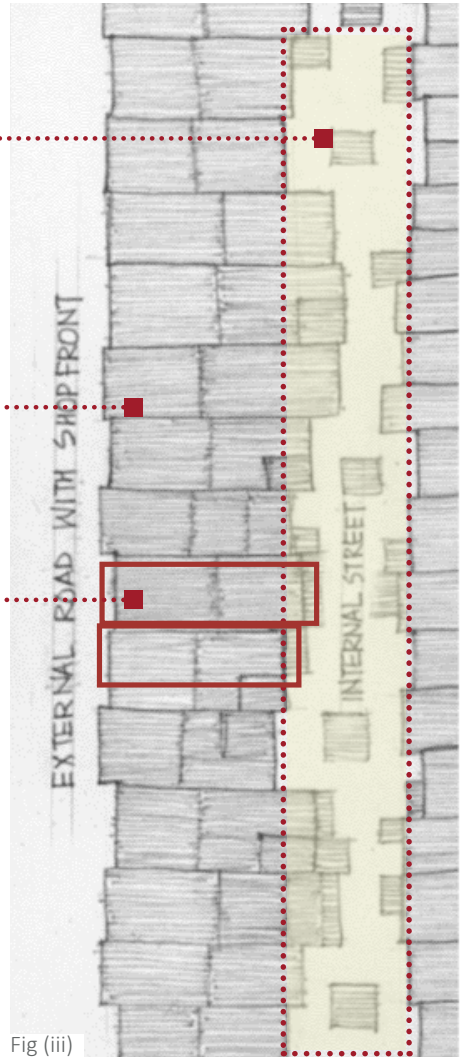


Fig (iii)

Fig (iii) shows a top view of a row of work-homes in Kumbharwada. The internal street is characterised by productive activities, and the external street by retail.

Scale: Neighbourhood

Public Infrastructure

Water- Unclear

Sewage-There are no sewers hence the waste water flows in open channels between houses covered with slabs.

Toilet-Individual toilets within home and public toilet in the neighborhood.

Electricity- Present; means of access unclear.

Access-An internal network of streets on one side and a vecular access road on the retail side of the work-homes.

(iii) Base image : from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf.

Information on physical infrastructure and spatial location derived from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf.

Built form and spatial characteristics

Fig (iv)

Fig (v)

Fig (vi)

The open internal street is used for different activities in the production cycle of pottery. The floor here remains unpaved and the partitions are mainly made of brick or clay.

Walls on ground floor are generally built with brick or wooden frames and tin sheet cladding.

Wooden supports are used to hold temporary semi-open structres to store the pots, and protect unbaked clay products from elements.

Pots are stored and stacked up at different locations across this internal street.

The upper floors are typically built with brick and corrugated cement sheet roofing.

(iv), (v), (vi) Base image : from Iqbal, A., Mahima, Afaf, S., Mathew, T., Biswas, T., Gowda, T. & Zosangliani. (2017). *Pottery Craft of Dharavi: Craft Documentation of Kumbharwada, Dharavi* [Design project]. Master of Design, NIFT Mumbai.

Built form and spatial characteristics

Fig (vii)

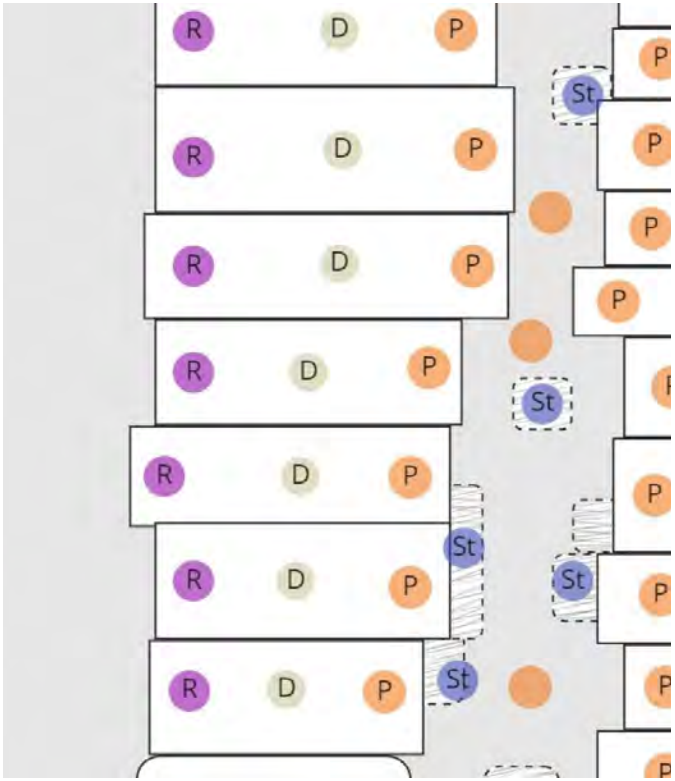

Fig (viii)


Fig (ix)

The shopfront side spills-over onto the steet and is used to display the different items for retail.

Space within the work-home is used for productive activities like pot making, decoration and storage.

Spatial schematic



P Production
R Retail
St Storage
D Domestic

Open space
Semi-open space
Covered

(vii) Base image : Fig 3b from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf.

(viii), (ix) Base images : from Iqbal, A., Mahima, Afaf, S., Mathew, T., Biswas, T., Gowda, T. & Zosangliani. (2017). *Pottery Craft of Dharavi: Craft Documentation of Kumbharwada, Dharavi* [Design project]. Master of Design, NIFT Mumbai.

CASE M12| CRIT & JJ College of Architecture, 2010

Type 4 P R St

Home + Production + Retail + Storage

Name : Behrampada
Location : Bandra East, Mumbai
Tenure : Owner occupancy and tenancy
Industry : Garment enterprises, tailoring and bakeries.
Typre of Intervention : User Intervention

Activity mapping

1.Bakery/ General store — Retail
2.Storage area for a store — Storage
3.Garment enterprise — Production
→ Productive activities

4. Residential area on rent → Domestic activities

Buildings in Behrampada have a mix of diferent kinds of domestic and productive activities. Typically in buildings along roads, the ground floor is occupied by shops. Ground floor spaces that do not open to the main road are typically occupied by owners. The top-most storeys are rented out to labourers or other families. There are also many embroidery, tailoring and zari enterprises here.

Scale: Building

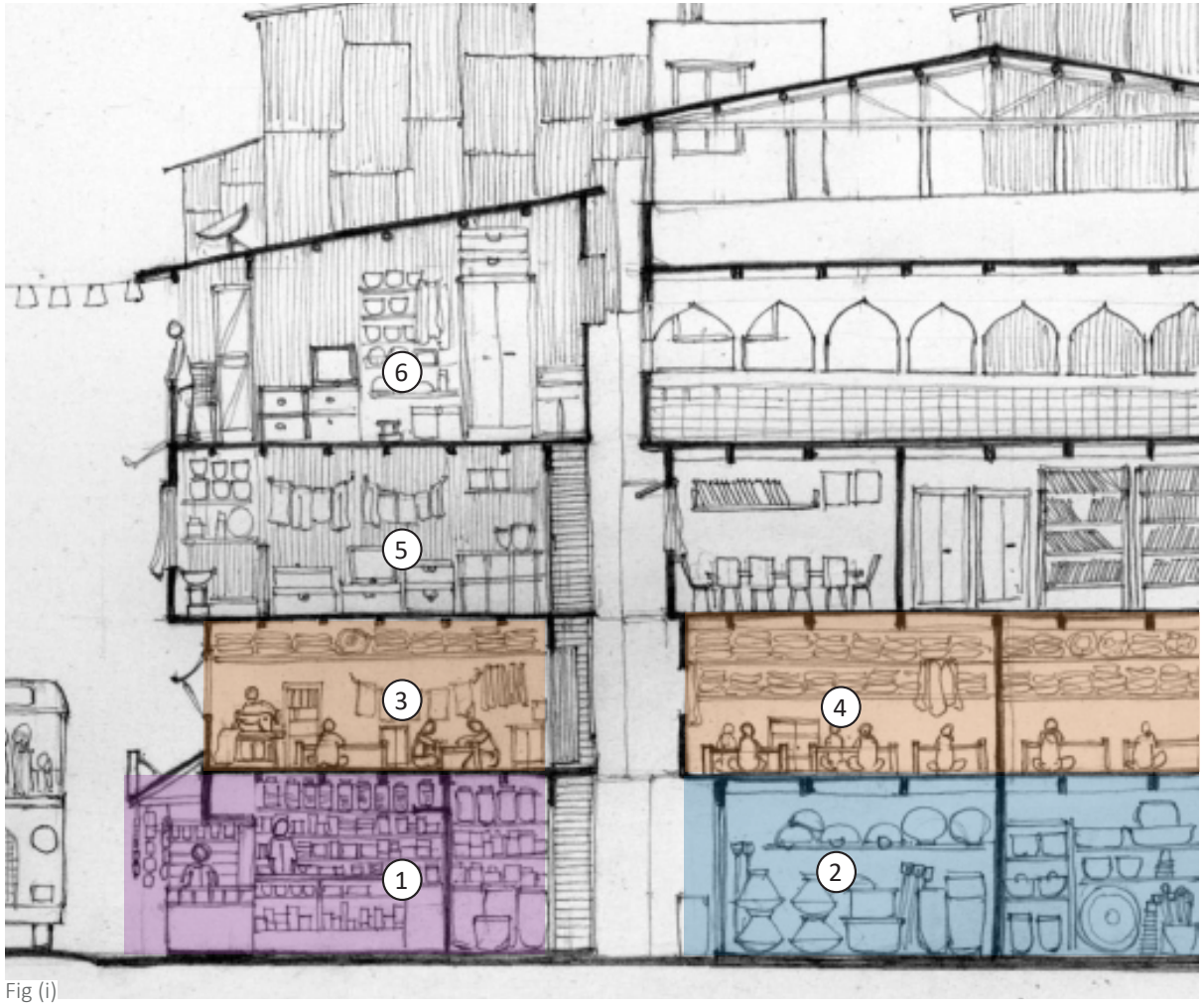


Fig (i)

A section mapping different types of productive activities within a typical building in Behrampada

(i) Base image : Fig 16 from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf.

Scale: Building

Fig (ii)

A view of the buildings in behrampeda. These verticaly stacked mixed use buildings have both residential and commercial establishments.

Scale: Neighbourhood

Public Infrastructure

Water- The area has water supply by the municipality and most houses have water meters.

Sewage-There are no sewers hence the waste water flows in open channels between houses covered with slabs.

Toilet- 8 public toilets in the vicinity or open defecation at the ground opposite near the railway tracks.

Electricity- Unclear

Access- Pucca road indicated in the photograph.

(ii) Base image: Fig 15 from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf.

Information on physical infrastructure and spatial location derived from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf.

Fig (iii)

A tailor at work at Behrampada.

Storage space within the room.

Fig (iv)

Both dry and wet construction techniques are employed in these structures. The framework consist of steel sections with plywood or brick walls. Tin sheets are used on roofs as well as walls.

(iii), (iv) Base image : from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf.

Built form and spatial characteristics

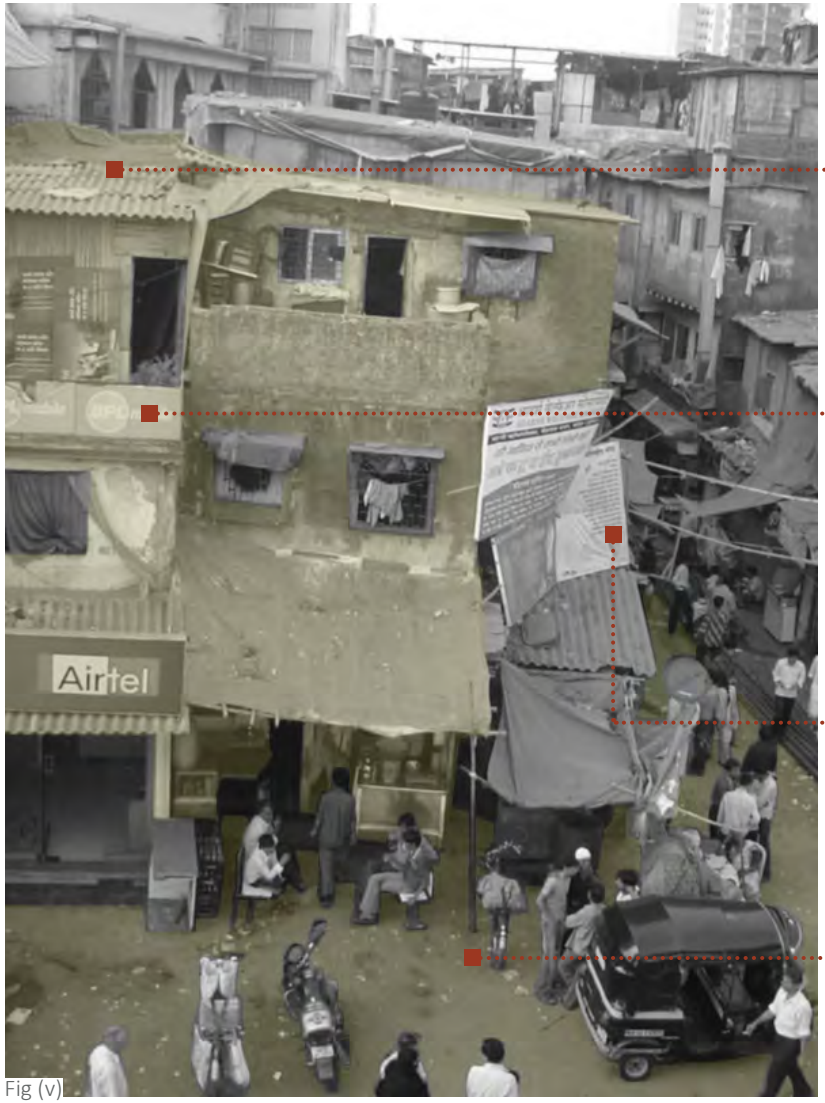


Fig (v)

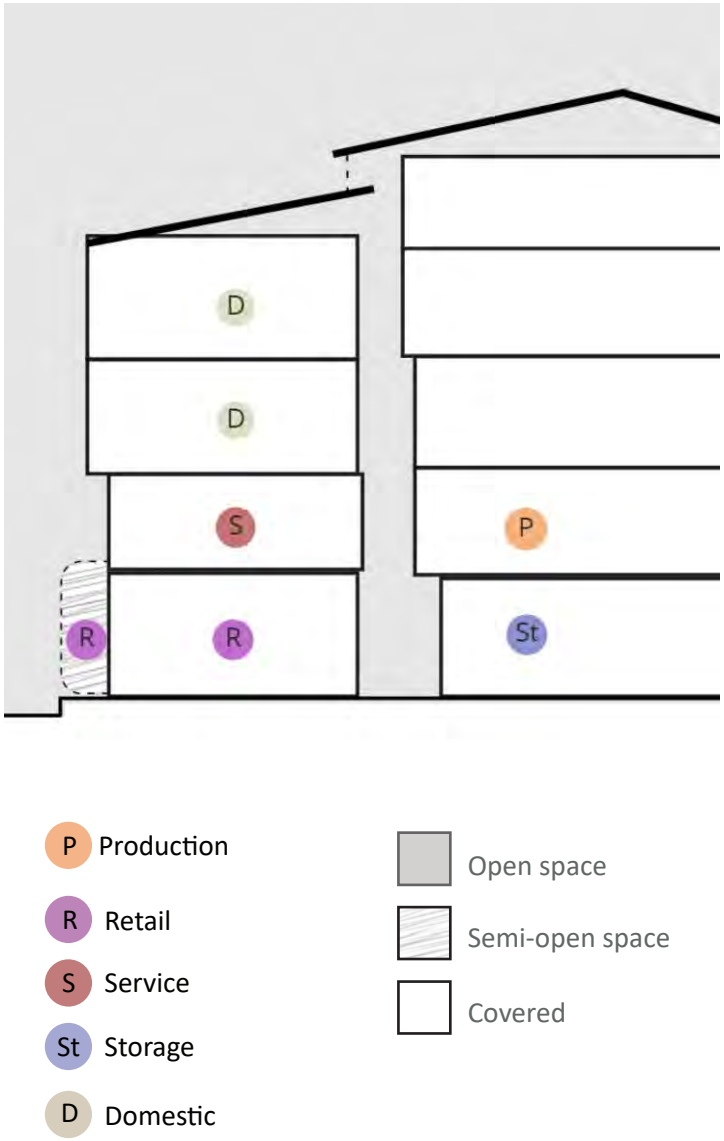
Tin sheets used for roofing.

Canteliver balconies at each level used to hold signages of the lower floor commercial establishments.

Temporary extended roof towards the road to support the shopfront.

The ground storey occupied by commercial establishment such as bakeries or general stores.

Spatial Schematic



(v) Base image : from CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf.

CASE M13 | Herlekar et al., 2021

Type 2 P St

Home + Production + Storage

Name : Saiyyed settlement
Location : Raikhad, Ahmedabad
Tenure : Unclear
Industry : Kite making
Type of Intervention : Intervention by MHT

Built form and spatial characteristics

Most work-homes in Raikhad are engaged in making kites. MHT partnered with design students to propose solutions addressing inadequacy in storage within work-homes.

The work-homes typically have roofs made of GI sheets. Figs (i) and (ii) illustrate two kinds of storgae solutions devised for work-homes in Raikhad.

The first storage option where angles sections are screwed into the wall to optimize the usage of the wall. The angle sections are interwoven with threads to carefully hold the fragile kites.

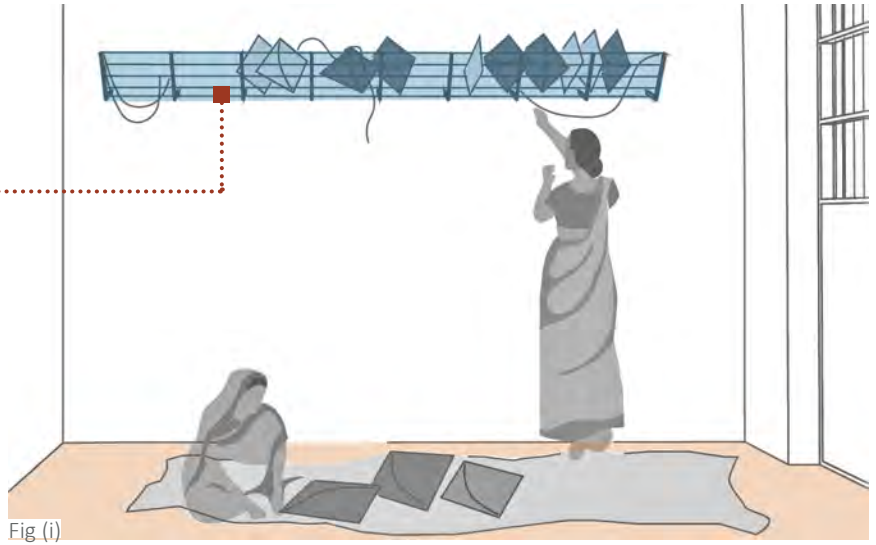


Fig (i)

The second storage option proposes to hang a J-hook from the roof to hold crates nailed together. This creates a suspended platform that acts as a loft for storing kites

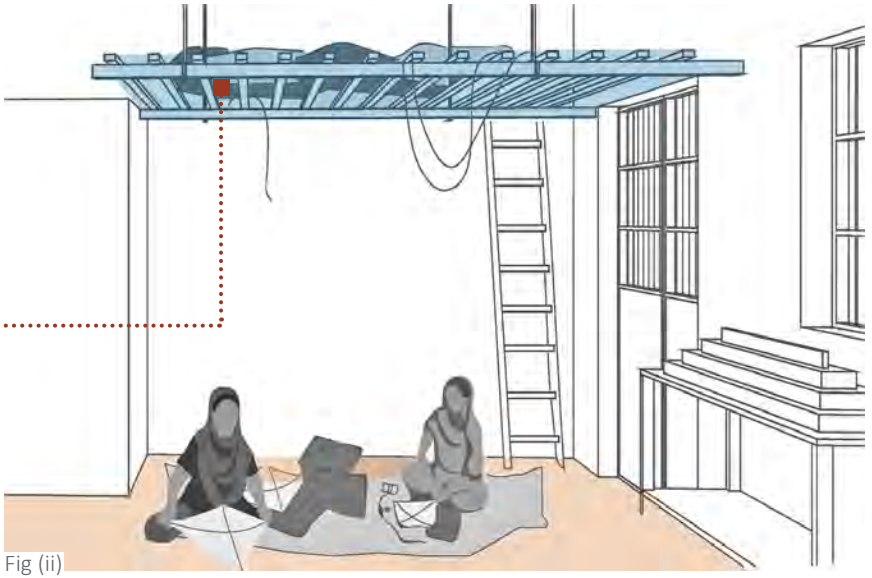


Fig (ii)

(i), (ii) Base images : from Herlekar, V., Lashkari, T., & Devanarayanan, A. (2021). *Making home-based work environments safer, healthier and productive: Improving the Physical Environment (1).* Brief No. PE1. WIEGO.

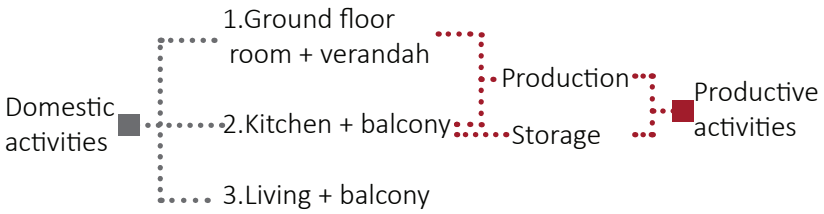
CASE M14 | Herlekar et al., 2021

Type 2 P St

Home + Production + Storage

Name : Rajaben's house
Location : Rajiv Nagar 3, Ahmedabad
Tenure : Unclear
Industry : Pani-puri making
Type of Intervention : Intervention by MHT

Activity mapping



Built form and spatial characteristics

Rajaben's work-home was reconstructed as a pilot project by MHT funded by the Selco foundation. The new structure is built having three storeys, with a semi open balcony space at each level. The walls are constructed using Compressed Agricultural Fiberboard (CAF). Ample openings are given to ensure cross-ventilation and proper lighting.

Fig (i) shows Rajaben's work-home before MHT intervention. Fig (ii) maps productive ativities in Rajaben's reconstructed work-home.

Rajaben's work-home previously had utility and kitchen sharing the same space, and limited storage.

Fig (i)

Customized furniture that is light-weight, ergonomic, movable, and water-resistant.

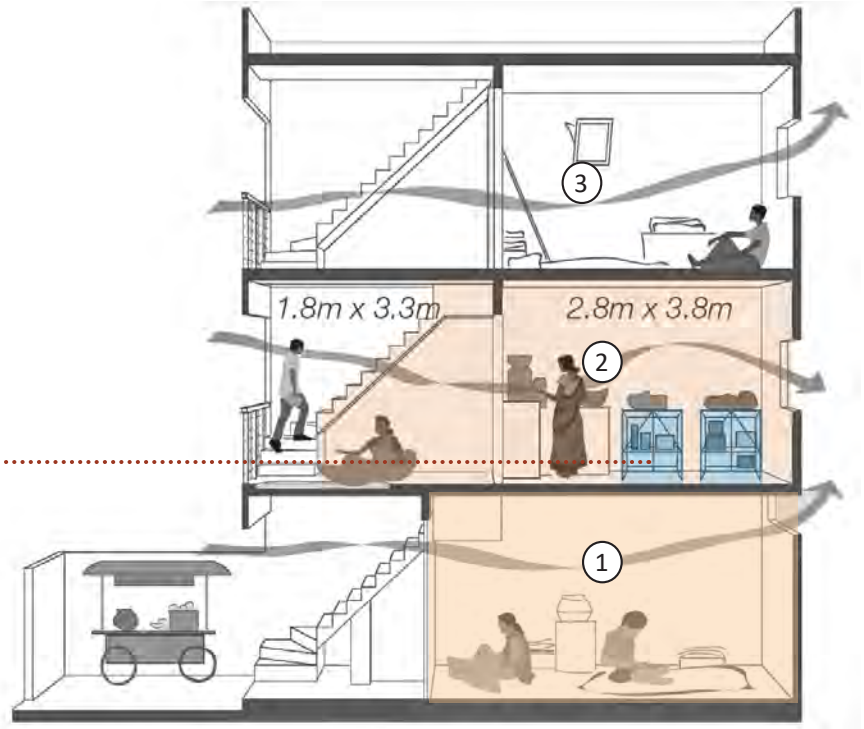


Fig (ii)

(i), (ii) Base images : from Herlekar, V., Lashkari, T., & Devanarayanan, A. (2021). *Making home-based work environments safer, healthier and productive: Improving the Physical Environment (1).* Brief No. PE1. WIEGO.

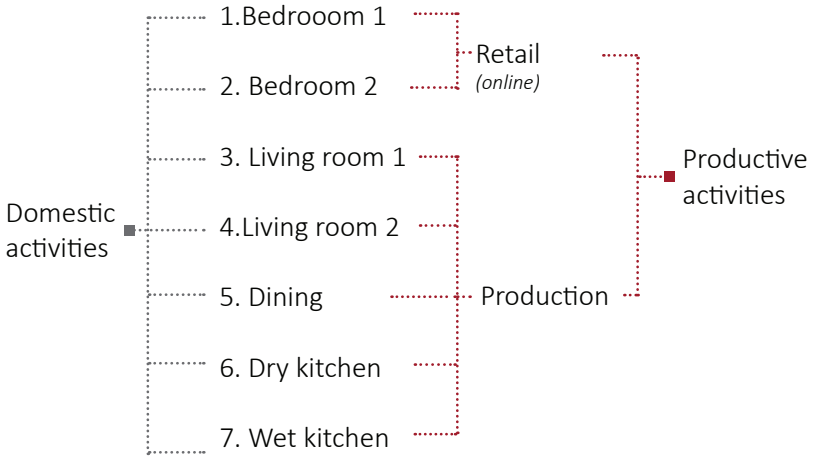
CASE M15 | Ernawati et al., 2020

Type 2 P R

Home + Production + Retail

Name : Choirul
Location : Kampung Kue, Surabaya
Tenure : Tenancy
Industry : Making and selling cake
Type of Intervention : User Intervention

Activity mapping



The same spaces in Choirul's work-home are used for both domestic and producitve activities. The work-home boundary is maintained by reconfiguring the schedule.

Scale: Building

Fig (i)

A plan mapping productive activities in Choirul's work-home.

(i) Base image : Fig 4 from Ernawati, R., Syariah, A., Widiastuti, M. & Ratodi, M. (2018). *Spatial Adaptation on Home-based Enterprises Development in Kampung* [Paper Presentation]. In Proceedings of the Built Environment, Science and Technology International Conference (BEST ICON 2018), pages 54-61. DOI: 10.5220/0008907100540061

CASE M16 | Ernawati et al., 2020

Type 2 P R

Home + Production + Retail

Name : Elva
Location : Kampung Kue, Surabaya
Tenure : Owner occupancy
Industry : Making and selling cake
Type of intervention : User Intervention

Activity mapping

The same spaces in Elva's work-home are used for both domestic and producitve activities. The work-home boundary is maintained by reconfiguring the schedule. Different members of the household also undertake different productive activities.

Scale: Building

Fig (i)

A plan mapping productive activities in Elva's work-home.

(i) Base image : Fig 3 from Ernawati, R., Syariah, A., Widiastuti, M. & Ratodi, M. (2018). *Spatial Adaptation on Home-based Enterprises Development in Kampung* [Paper Presentation]. In Proceedings of the Built Environment, Science and Technology International Conference (BEST ICON 2018), pages 54-61. DOI: 10.5220/0008907100540061

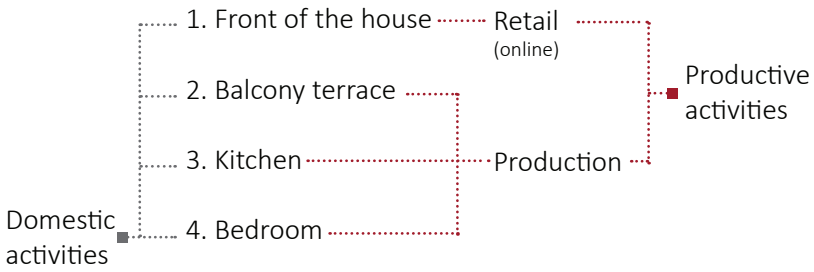
CASE M17 | Ernawati et al., 2020

Type 2 P R

Home + Production + Retail

Name : Ismail
Location : Kampung Kue, Surabaya
Tenure : Tenancy
Industry : Making and selling tofu cake
Type of Intervention : User Intervention

Activity mapping



The same spaces in Ismail's work-home are used for both domestic and producitve activities. The work-home boundary is maintained by reconfiguring the schedule.

Scale: Building

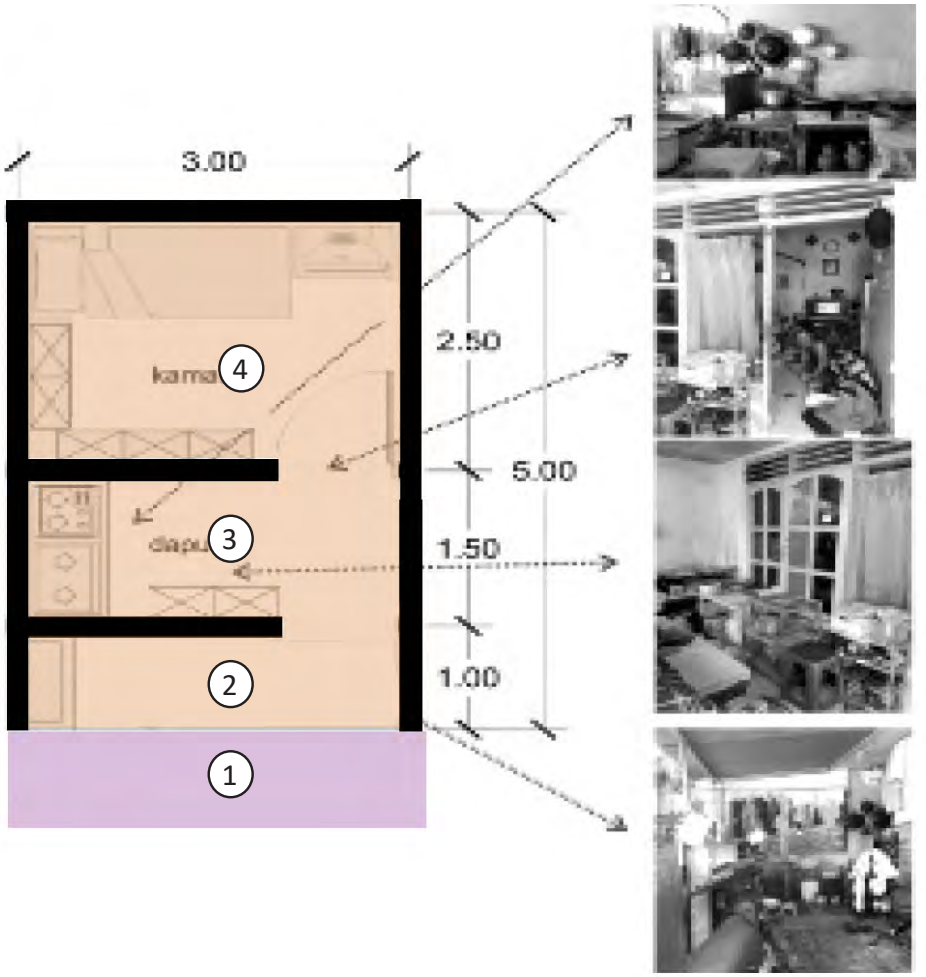


Fig (i)

A plan mapping productive activities in Ismail's work-home.

(i) Base image : Fig 5 from Ernawati, R., Syariah, A., Widiastuti, M. & Ratodi, M. (2018). *Spatial Adaptation on Home-based Enterprises Development in Kampung* [Paper Presentation]. In Proceedings of the Built Environment, Science and Technology International Conference (BEST ICON 2018), pages 54-61. DOI: 10.5220/0008907100540061

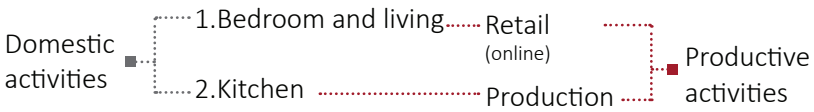
CASE M18 | Ernawati et al., 2020

Type 2 P R

Home + Production + Retail

Name : Kinarty
Location : Kampung Kue, Surabaya
Tenure : Tenancy
Industry : Making and selling cake
Type of Intervention : User Intervention

Activity mapping



The same spaces in Kinarty's work-home are used for both domestic and producitve activities. The work-home boundary is maintained by reconfiguring the schedule. Different members of the household also undertake different productive activities.

Scale: Building

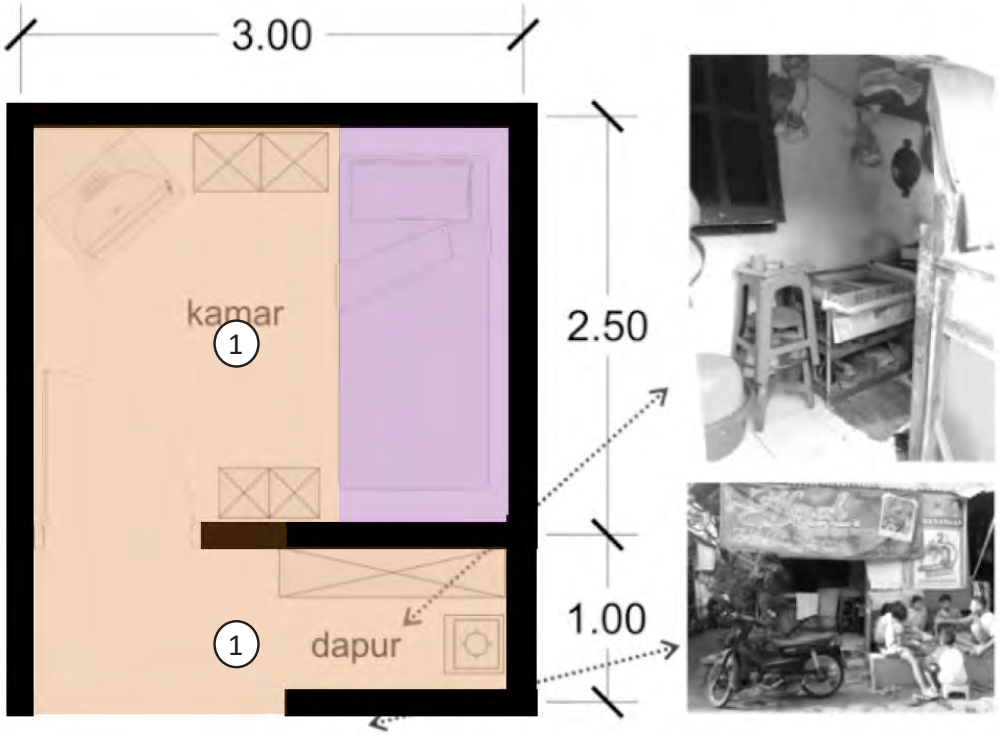


Fig (i)

A plan mapping productive activities in Elva's work-home.

(i) base image : Fig 6 from Ernawati, R., Syariah, A., Widiastuti, M. & Ratodi, M. (2018). *Spatial Adaptation on Home-based Enterprises Development in Kampung* [Paper Presentation]. In Proceedings of the Built Environment, Science and Technology International Conference (BEST ICON 2018), pages 54-61. DOI: 10.5220/0008907100540061

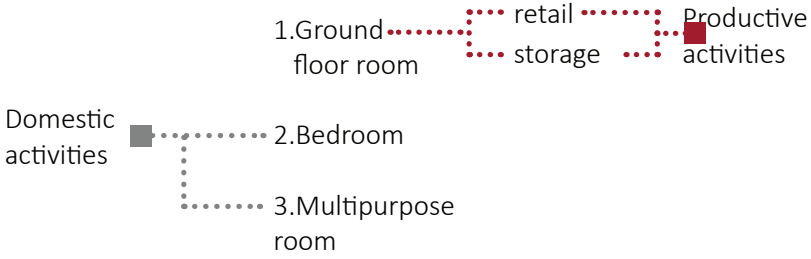
CASE M19 | Kellett & Tipple, 2000

Type 2 R St

Home + Retail + Storage

Name : Ragunath Yadav
Location : Jahangirpuri, Delhi
Tenure : Unclear
Industry : Unclear
Type of Intervention : User Intervention

Activity Mapping



The upper floor of the double-storeyed work-home is used for domestic activities, while the ground floor for productive activities.

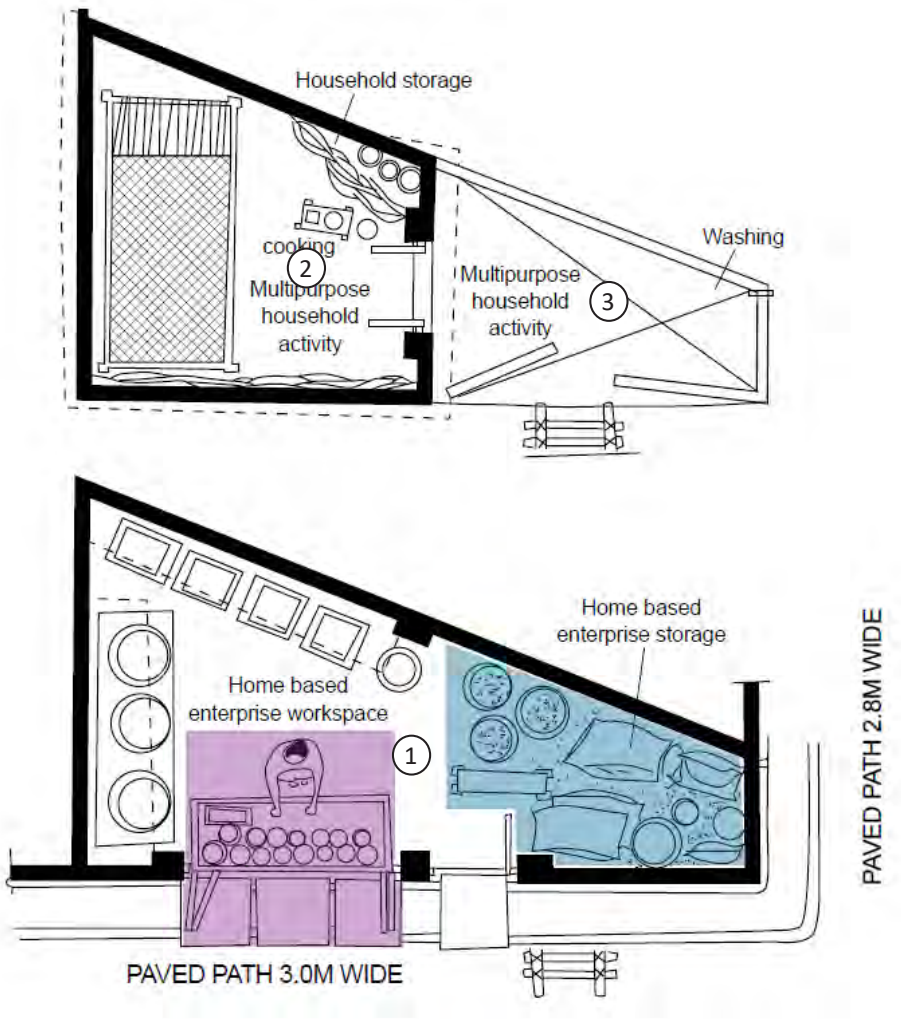


Fig (i)

(i) Base image : Fig 1 from Kellett, P.; Tipple, A. G. (2000). The home as workplace: a study of income-generating activities within the domestic setting. *Environment and Urbanization, 12*(1), 203–214. https://doi.org/10.1177/095624780001200115

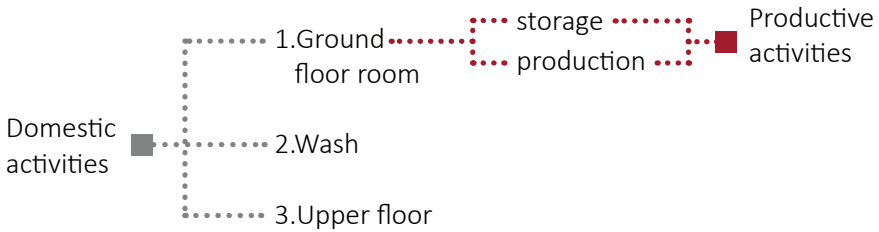
CASE M20 | Kellett & Tipple, 2000

Type 2 P St

Home + Production+ Storage

Name : Nilofar
Location : Jahangirpuri, Delhi
Tenure : Unclear
Industry : Bangle making and selling
Type of Intervention : User Intervention

Activity Mapping



The upper floor of the double-storeyed work-home is used by the brother. The ground floor is used by Nilofar and her husband for both domestic and productive activities. They roll up the mats each morning on waking up, and Nilofar works on the bangles. Her husband sells the bangles on his cart, which they unload and store vertically each night due to spatial limitations.

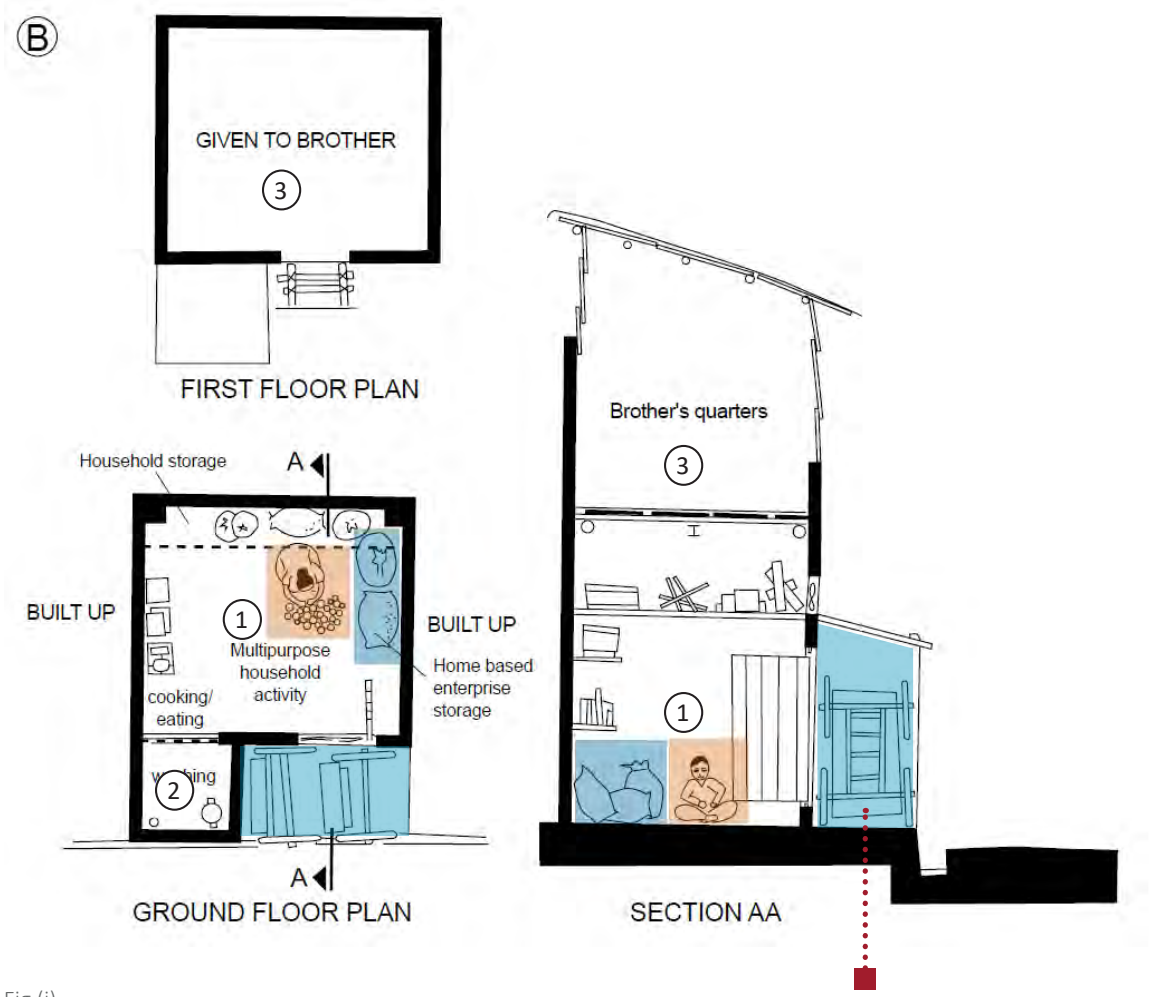


Fig (i)

Fig (i) maps productive activities of Nilofar's work-home.

(i) Base image : Fig 1 from Kellett, P.; Tipple, A. G. (2000). The home as workplace: a study of income-generating activities within the domestic setting. *Environment and Urbanization, 12*(1), 203–214. https://doi.org/10.1177/095624780001200115

CASE M21 | World Habitat, 2017

Name of intervention : Ujasiyu
Location : Multiple states in India
Scale : Unit level
Type of Intervention : Intervention by other actors
Actors : MHT, SEWA Bank, Footprints EARTH, SELCO,

A dormer window was designed as an easy to install intervention for work-homes in India. Beneficiaries typically carry out work like embroidery and rolling bidis. This saved costs on electrcity, and light and ventilation.

The is a simple dormer window can be fit into the existing corrugated sheet roof. Made of fibreglas, the window is shaped such that it fits into the sheet. The translucent plastic prevents glare, diffusing the light so as to illuminate the room rather than remaining just a shaft of light. The hump shaped window has an opening at the bottom to faciliate circulation of air. This gap is covered with gauze to protect from insects and pests.


Fig (i)


Fig (ii)

(i), (ii) Base image : from World Habitat. (2017). Bringing light and air to homes in informal settlements. https://world-habitat.org/world-habitat-awards/winners-and-finalists/bringing-light-and-air-to-homes-in-informal-settlements/#award-content

Annexure B:

Tabulated list of cases

Case no.	Type of spatial configuration					Name	Location	Industry	Type of intervention	Scale of intervention	Kind of intervention		Floor	Type of structure	Tenure	Individual access to infrastructure [Yes (Y)/ No (N)/ Commimity (C)/ unclear (uc)]					Citation
	No.	Production	Retail	Service	Storage				[User intervention/ Intervention by other actors]	[Unit/ Building/ Street/ Neighbourhood]	Unit	Unit adjacent	[Ground floor/ Upper floor/ Ground floor and above]	[Dry/ Wet/ Hybrid]	[Owner occupancy/ Tenancy]	Water	Toilet	Sewage	Electricity	Access	
Single activity work-homes: Production (SP)																					
SP1	**1**	**P**				Kunchikorve Nagar	Kalina, Mumbai	Broom making	User intervention	Unit	Unit	Unit adjacent	Ground floor	Hybrid	Occupant built dwellings on government and private land	Y	Y	Y	uc	uc	CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai*. SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf
SP2	**1**	**P**				Kanubhai Patel	Chitrakut Society, Memnagar, Ahmedabad	Sweet making	User intervention	Unit	Unit	Unit adjacent	Ground floor	Wet structure	Owner occupancy	uc	Y	uc	uc	uc	Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277)*. [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314
SP3	**1**	**P**				Godavari Parulekar Housing Scheme	Kumbhari, Solapur, Maharashtra	Beedi making	Intervention by other actors : CITU	Neighbourhoo	Unit		Ground floor	Wet structure	Owner occupancy	Y	uc	uc	Y	uc	Dennis, S. (2018, April 17). *How women beedi workers set up Asia's largest housing cooperative*. Open Democracy. https://www.opendemocracy.net/en/tc-solapur-housing-beedi-workers/
SP4	**1**	**P**				Mason's house	Chanderi, Madhya Pradesh	Beedi making and handloom weaving	User intervention	Building	Unit		Ground floor and above	Wet structure	Owner occupancy	uc	Y	uc	uc	uc	Mathankar, R., Karsoliya, M., & Siva, ESS. (2018). *Dwelling Study: The Ghosi Residence* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.
SP5	**1**	**P**				Bharatbhai Bokolia	Amee Apartments, Memnagar, Ahmedabad	Shoe maker	User intervention	Unit	Unit	Unit adjacent	Ground floor	Wet structure	Owner occupancy	uc	Y	uc	uc	uc	Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277)*. [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314
SP6	**1**	**P**				Maheshbhai Sathiya	Nanranpura, Parasnagar Society, Ahmedabad	Flower garland making	User intervention	Unit	Unit	Unit adjacent	Ground floor	Wet structure	Owner occupancy	uc	Y	uc	uc	uc	Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277)*. [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314
SP7	**1**	**P**				Vipulbhai Vadodariya	Lakshmi Krupa, Vibhag 1, Ahmedabad	Tea masala and other seasonal masala making	User intervention	Unit	Unit	Unit adjacent	Ground floor	Wet structure	Owner occupancy	uc	Y	uc	uc	uc	Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277)*. [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314
SP8	**1**	**P**				Mrs. Elfinesh Tadesse	Addis-Ketema, Ethiopia	Traditional clothing cotton preparation (Duwur)	User intervention	Unit	Unit		Unclear	Unclear	Tenancy - kebele house	uc	uc	uc	uc	uc	Girmay, A. (2015). *Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full
SP9	**1**	**P**				Mrs. Senait Kerissa	Addis-Ketema, Ethiopia	Traditional clothing cotton preparation (Duwur)	User intervention	Unit	Unit		Unclear	Unclear	Tenancy - kebele house	uc	uc	uc	uc	uc	Girmay, A. (2015). *Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full

Case no.	Type of spatial configuration					Name	Location	Industry	Type of intervention	Scale of intervention	Kind of intervention		Floor	Type of structure	Tenure	Individual access to infrastructure [Yes (Y)/ No (N)/ Comminity (C)/ unclear (uc)]					Citation
	No.	Production	Retail	Service	Storage				[User intervention/ Intervention by other actors]	[Unit/ Building/ Street/ Neighbourhood]	Unit	Unit adjacent	[Ground floor/ Upper floor/ Ground floor and above]	[Dry/ Wet/ Hybrid]	[Owner occupancy/ Tenancy]	Water	Toilet	Sewage	Electricity	Access	
SP10	1	P				Girmanesh Semerga	Addis-Ketema, Ethiopia	Injera selling	User intervention	Unit	Unit	Unit adjacent	Ground floor	Unclear	Tenancy - kebele house	uc	uc	uc	uc	uc	Girmay, A. (2015). *Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full
SP11	1	P				Shanta	Madipur widow colony, West Delhi	Box decoration	User intervention	Unit	Unit		Ground floor	Wet structure	Owner occupancy	Y	Y	Y	Y	Y	Datta, A. (2008). Architecture of low-income widow housing: "spatial opportunities" in Madipur, West Delhi. *Cultural Geographies, 15*(2), 231–253.
SP12	1	P				Meena Soni	Vishwas Nagar Chawl, Ahmedabad	Tailors dresses and bags	Intervention by other actors	Unit	Unit		Ground floor	Hybrid	Owner occupancy	Y	Y	Y	Y	Y	Herlekar, V., Lashkari, T., & Devanarayanan, A. (2021). *Making home-based work environments safer, healthier and productive: Case Study (1).* Brief No. CS1. WIEGO
SP13	1	P				Gangubhai's home	Dharavi, Maharashtra	Broom making	User intervention	Unit	Unit		Unclear	Hybrid	Owner occupancy	N	N	N	N	Y	KRVIA. (2016). *The Atlas of Mapping Methods* [Book accompannying disc exhibit]. Exhibited at Turning Tables, Venice 2016.
Single activity work-homes: Retail (SR)																					
SR1	1		R			Imran's house	Shivaji Nagar, Mumbai	Retail	User intervention	Unit	Unit	Unit adjacent	Ground floor and above	Wet structure	Owner occupancy	uc	Y	uc	uc	uc	CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis*. World Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf
SR2	1		R			Unit F	Tung Song Hong Settlements, Bangkok, Thailand	Shop	User intervention + intervention by other actors	Unit/Plot	Unit	Unit adjacent	Ground floor	Wet structure	Unclear	uc	Y	uc	uc	Y	Tanaka, M., Kikuchi, Y., Akazawa, A., Funo, S. & Kobayashi, M. (2003). Spatial Characteristics of Core Housing Units Brought by Residents' Extension Activities at Tung Song Hong Settlements in Thailand. *Journal of Asian Architecture and Building Engineering, 2*(2),123-130.
SR3	1		R			PPP housing	Laxmi Nagar, Ahmedabad	-	Intervention by other actors	Building		Building	Ground floor	Wet structure	Unclear	Y	Y	Y	Y	Y	Herlekar, V., Lashkari, T., & Devanarayanan, A. (2021). *Making home-based work environments safer, healthier and productive: Incorporating needs of home-based workers in city plans and policies (1).* Brief No. CP1. WIEGO
SR4	1		R			Anita	Madipur widow colony, West Delhi	Grocery shop	User intervention	Unit	Unit	Unit adjacent	Ground floor	Wet structure	Owner occupancy	Y	Y	Y	Y	Y	Datta, A. (2008). Architecture of low-income widow housing: "spatial opportunities" in Madipur, West Delhi. *Cultural Geographies, 15*(2), 231–253.
SR5	1		R			Semira Ahmed	Addis-Ketema, Ethiopia	Vegetable selling (Chircharo)	User intervention	Unit		Unit adjacent	Ground floor	Unclear	Tenancy - kebele house	uc	uc	uc	uc	uc	Girmay, A. (2015). *Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full

Case no.	Type of spatial configuration						Name	Location	Industry	Type of intervention	Scale of intervention	Kind of intervention		Floor	Type of structure	Tenure	Individual access to infrastructure [Yes (Y)/ No (N)/ Comminity (C)/ unclear (uc)]					Citation
	No.	Production	Retail	Service	Storage					[User intervention/ Intervention by other actors]	[Unit/ Building/ Street/ Neighbourhood]	Unit	Unit adjacent	[Ground floor/ Upper floor/ Ground floor and above]	[Dry/ Wet/ Hybrid]	[Owner occupancy/ Tenancy]	Water	Toilet	Sewage	Electricity	Access	
SR6	**1**		**R**				Unit E	Tung Song Hong Settlements, Bangkok, Thailand	Shop	User intervention + intervention by other actors	Unit/plot	Unit	Unit adjacent	Ground floor	Wet structure	Unclear	uc	uc	Y	uc	Y	Tanaka, M., Kikuchi, Y., Akazawa, A., Funo, S. & Kobayashi, M. (2003). Spatial Characteristics of Core Housing Units Brought by Residents' Extension Activities at Tung Song Hong Settlements in Thailand. *Journal of Asian Architecture and Building Engineering, 2*(2),123-130.
Single activity work-homes: Service (SS)																						
SS1	**1**			**S**			Mrs. Hiwot Zerihun	Addis-Ketema, Ethiopia	Tailoring	User intervention	Unit	Unit		Ground floor	Unclear	Unclear	uc	uc	uc	uc	uc	Girmay, A. (2015). *Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/27512?show=full
SS2	**1**			**S**			Shefaliben Harpanchal	Amee Apartments, Memnagar, Ahmedabad	Beauty parlour	User intervention	Unit	Unit	Unit adjacent	Second floor	Wet structure	Owner occupancy	uc	Y	uc	uc	uc	Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314
SS3	**1**			**S**			Meldridge's house	Poonawalla Chawl, Mumbai	Children's nursery and tuition classes	User intervention	Unit	Unit		Ground floor	hybrid	Unclear	uc	Y	Y	Y	Y	Lantz, M., & Habib Engqvist, J. (Eds.). (2008). *Dharavi: Documenting Informalities.* Royal University College of Fine Arts, Art and Architecture.
SS4	**1**			**S**			Seema K	Naranpura, Parasnagar Society, Ahmedabad	Teaching	User intervention	Unit	Unit	Unit adjacent	First Floor	Wet structure	Owner occupancy	uc	Y	uc	uc	uc	Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314
SS5	**1**			**S**			Rajubhai Vasita	Amee Apartments, Memnagar, Ahmedabad	Ironing clothes	User intervention	Unit	Unit	Unit adjacent	Ground floor	Wet structure	Owner occupancy	uc	Y	uc	uc	uc	Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314
SS6	**2**			**S**			Dilipbhai Darji	Srinagar Apts, Ahmedabad	Tailoring	User intervention	Unit	Unit		Upper floor	Wet structure	Owner occupancy	uc	Y	uc	uc	uc	Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277).* [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314
SS7	**1**			**S**			Mimi	Madipur widow colony, West Delhi	Tuition classes	User intervention	Unit	Unit		Upper floor	Unclear	Tenancy	Y	Y	Y	Y	Y	Datta, A. (2008). Architecture of low-income widow housing: "spatial opportunities" in Madipur, West Delhi. *Cultural Geographies, 15*(2), 231–253.
Single activity work-homes: Storage (SSt)																						
SSt1	**1**					**St**	Bhainu house	Versova Fishing Village, Mumbai	Fishing equipment storage	User intervention	Unit	Unit		Ground floor	Wet structure	Owner occupancy	Y	Y	Y	uc	uc	CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai.* SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf

Case no.	Type of spatial configuration					Name	Location	Industry	Type of intervention	Scale of intervention	Kind of intervention		Floor	Type of structure	Tenure	Individual access to infrastructure [Yes (Y)/ No (N)/ Comminity (C)/ unclear (uc)]					Citation
	No.	Production	Retail	Service	Storage				[User intervention/ Intervention by other actors]	[Unit/ Building/ Street/ Neighbourhood]	Unit	Unit adjacent	[Ground floor/ Upper floor/ Ground floor and above]	[Dry/ Wet/ Hybrid]	[Owner occupancy/ Tenancy]	Water	Toilet	Sewage	Electricity	Access	
SSt2	**1**				**St**	Umerwadi (Kasai wada), Qureshi Nagar	Qureshi Nagar, Mumbai	Animal fat storage	User intervention	Unit		Unit adjacent	Ground floor	Hybrid	Public housing on lease	Y	Y	Y	Y	uc	CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai*. SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf
SSt3	**1**				**St**	Mrs Hadra Ahmed	Addis-Ketema, Ethiopia	Vegetable, coal and soft drinks selling	User intervention	Unit	Unit		Ground floor	Unclear	Tenancy - kebele house	uc	uc	uc	uc	uc	Girmay, A. (2015). *Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full
SSt4	**1**				**St**	Mrs Lakech Tekile	Addis-Ketema, Ethiopia	Vegetable selling	User intervention	Unit	Unit		Ground floor	Unclear	Tenancy - kebele house	uc	uc	uc	uc	uc	Girmay, A. (2015). *Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full
Multi-activity work-homes (M)																					
M1	**2**	**P**	**R**			Dalal ji ki Haveli	Chanderi, Madhya Pradesh	Weaving and general store	User intervention	Building	Unit		Ground floor and above	wet structure	Owner occupancy	uc	Y; at unit level	uc	Y; Access Unclear	Unclear	Sonowal, P., Jain, S., & Pillai, V. (2018). *Study of Dalal ji ki Haveli* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision: Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.
M2	**2**	**P**	**R**			Meenaben Shah	Mangalmurti Apartments, Naranpura, Ahmedabad	Papad making and retail	User intervention	Unit	Unit	Unit adjacent	Ground floor	Wet structure	Owner occupancy	uc	Y: unit level	uc	uc	uc	Bhadja, P. (2019). *Negotiations in Live-Work typology of Housing (http://hdl.handle.net/20.500.12725/13277)*. [Undergraduate Thesis, Faculty of Architecture, CEPT University]. CEPT Repository. https://repository.cept.ac.in/handle/20.500.12725/14314
M3	**2**	**P**			**St**	Shenaz's House	Tever Nagar, Dharavi, Mumbai	Tailoring jeans and embroidery. They also store plastic products which they sell to local recyclers.	User intervention	Unit	Unit		Ground floor	Hybrid	Unclear	uc	uc	uc	Y: metered	Y: narrow	Karlsson, M. (2008). Two Homes. In Lantz, M., & Habib Engqvist, J. (Eds.). *Dharavi: Documenting Informalities*. Royal University College of Fine Arts, Art and Architecture.
M4	**2**		**R**	**S**		Ibrahim Bhai's house	Bharat Nagar, Mumbai	Retail and tution classes.	User intervention	Unit	Unit		Ground floor and above	Wet structure	Owner occupancy	uc	Y	Drainage lines along street	uc	Corner plot + narrow alley between homes.	CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis*. World Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf

Case no.	Type of spatial configuration					Name	Location	Industry	Type of intervention	Scale of intervention	Kind of intervention		Floor	Type of structure	Tenure	Individual access to infrastructure [Yes (Y)/ No (N)/ Comminity (C)/ unclear (uc)]					Citation
	No.	Production	Retail	Service	Storage				[User intervention/ Intervention by other actors]	[Unit/ Building/ Street/ Neighbourhood]	Unit	Unit adjacent	[Ground floor/ Upper floor/ Ground floor and above]	[Dry/ Wet/ Hybrid]	[Owner occupancy/ Tenancy]	Water	Toilet	Sewage	Electricity	Access	
M5	**2**	**P**		**S**		Mehboob Haveli	Chanderi, Madhya Pradesh	Weaving and tailoring	User intervention	Building	Unit		Ground floor and above	Wet structure	Owner occupancy	uc	Y	uc	uc	Y	Garg, M., Paul, S., & Himanshu. (2018). *Dwelling Study of Mehboob Haveli* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.
M6	**2**	**P**		**S**		Ghosi Residence	Chanderi, Madhya Pradesh	Beedi making and tailoring	User intervention	Building	Unit		Ground floor	Wet structure	Owner occupancy	uc	uc	uc	uc	uc	Mathankar, R., Karsoliya, M., & Siva, ESS. (2018). *Dwelling Study: The Ghosi Residence* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.
M7	**2**		**R**		**St**	The Purohit house	Chanderi, Madhya Pradesh	Print shop and storage to support their other buisnesses.	User intervention	Building	Unit		Ground floor and above	Wet structure	Owner occupancy and tenancy	uc	uc	uc	Y	Y	Dhanraj, K., Krishna, M., Sharma, A. & Anil, V. (2018). *Dwelling study - The Purohit House* [Unpublished design studio project]. Department of Architecture, School of Planning and Architecture, New Delhi. Faculty supervision : Parul Kiri Roy, Kapil Mathur, Swati Janu and Pankaj Khanna.
M8	**3**	**P**	**R**		**St**	Mrs Tsehay Desalegn	Addis-Ketema, Ethiopia	Detergent repackaging and selling	User intervention	Unit	Unit		Ground floor	Unclear	Tenancy - kebele house	uc	uc	uc	uc	uc	Girmay, A. (2015). *Exploring the use of domestic spaces for home-based income generation (http://localhost:80/xmlui/handle/123456789/2751)* [Master's Thesis, EiABC]. AAU Institutional Repository. http://213.55.95.56/handle/123456789/2751?show=full
M9	**3**		**R**	**S**	**St**	HBE houses in Buguruni Mnyamani Settlement	Buguruni Mnyamani, Dar es Salaam, Tanzania	Garment shop, video showing, shop	User intervention	Building and premises	Unit	Unit adjacent	Ground floor	Hybrid	Owner occupancy and tenancy	uc	Y	uc	uc	Y	Huba, N., & Yohannes, K. (2015). Space Use and Environmental Effects of Home-Based Enterprises. The Case of Buguruni Mnyamani Informal Settlement, Dar Es Salaam, Tanzania. *International Journal of Humanities and Social Science, Vol. 5*, No. 4(1), 7-19
M10	**3**		**R**	**S**	**St**	Hasan	Behrampada, Mumbai	Tailoring and pan shop	User intervention	Unit	Unit		Ground floor and above	Hybrid	Owner occupancy	uc	uc	uc	uc	Y	CRIT. (2011). *Informal Housing: Reducing Disaster Vulnerability Through Safer Construction. Book 1: Situation Analysis*. World Bank. https://critmumbai.files.wordpress.com/2011/10/low_cost_green_housing_situation_analysis.pdf
M11	**3**	**P**	**R**		**St**	Kumbharwada	Kumbharwada, Mumbai	Pottery	User intervention	Unit/Street	Unit	Unit adjacent	Ground floor	Hybrid	Owner occupancy	Y	Y	Y	Y	Y	CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai*. SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf
M12	**4**	**P**	**R**	**S**	**St**	Behrampada	Behrampada, Mumbai	Garment, embroidery and retail	User intervention	Building and premises	Unit	Unit adjacent	Ground floor and above	Wet structure	Owner occupancy and Tenancy	C	C	N	Y	Y	CRIT & JJ College of Architecture (2010) *Typologies and Beyond: Slum Settlement Studies in Mumbai*. SPA New Delhi https://critmumbai.files.wordpress.com/2011/10/slumtypologies1.pdf
M13	**2**	**P**			**St**	Saiyyed settlement	Raikhad, Ahmedabad	Kite making	Intervention by other actors	Unit	Unit		Unclear	Unclear	Unclear	uc	uc	uc	uc	uc	Herlekar, V., Lashkari, T., & Devanarayanan, A. (2021). *Making home-based work environments safer, healthier and productive: Improving the Physical Environment (1)*. Brief No. PE1. WIEGO

Case no.	Type of spatial configuration					Name	Location	Industry	Type of intervention	Scale of intervention	Kind of intervention		Floor	Type of structure	Tenure	Individual access to infrastructure [Yes (Y)/ No (N)/ Comminity (C)/ unclear (uc)]					Citation
	No.	Production	Retail	Service	Storage				[User intervention/ Intervention by other actors]	[Unit/ Building/ Street/ Neighbourhood]	Unit	Unit adjacent	[Ground floor/ Upper floor/ Ground floor and above]	[Dry/ Wet/ Hybrid]	[Owner occupancy/ Tenancy]	Water	Toilet	Sewage	Electricity	Access	
M14	**2**	**P**			**St**	Rajaben's house	Rajiv Nagar 3, Ahmedabad	Pani-puri making	Intervention by other actors	Unit/Building	Unit		Ground floor and above	Unclear	Unclear	uc	uc	uc	uc	uc	Herlekar, V., Lashkari, T., & Devanarayanan, A. (2021). *Making home-based work environments safer, healthier and productive: Improving the Physical Environment (1).* Brief No. PE1. WIEGO
M15	**2**	**P**	**R**			Choirul	Kampung Kue, Surabaya, Indonesia	Cake making and selling	User intervention	Unit	Unit		Ground floor	Wet structure	Tenancy	uc	uc	uc	uc	uc	Ernawati, R., Syariah, A., Widiastuti, M. & Ratodi, M. (2018). *Spatial Adaptation on Home-based Enterprises Development in Kampung* [Paper Presentation]. In Proceedings of the Built Environment, Science and Technology International Conference (BEST ICON 2018), pages 54-61. DOI: 10.5220/0008907100540061
M16	**2**	**P**	**R**			Elva	Kampung Kue, Surabaya, Indonesia	Cake making and selling	User intervention	Unit	Unit		Unclear	Wet structure	Owner occupancy	uc	Y	uc	uc	uc	Ernawati, R., Syariah, A., Widiastuti, M. & Ratodi, M. (2018). *Spatial Adaptation on Home-based Enterprises Development in Kampung* [Paper Presentation]. In Proceedings of the Built Environment, Science and Technology International Conference (BEST ICON 2018), pages 54-61. DOI: 10.5220/0008907100540061
M17	**2**	**P**	**R**			Ismail	Kampung Kue, Surabaya, Indonesia	Cake making and selling	User intervention	Unit	Unit		Ground floor	Wet structure	Tenancy	uc	uc	uc	uc	uc	Ernawati, R., Syariah, A., Widiastuti, M. & Ratodi, M. (2018). *Spatial Adaptation on Home-based Enterprises Development in Kampung* [Paper Presentation]. In Proceedings of the Built Environment, Science and Technology International Conference (BEST ICON 2018), pages 54-61. DOI: 10.5220/0008907100540061
M18	**2**	**P**	**R**			Kinarty	Kampung Kue, Surabaya, Indonesia	Cake making and selling	User intervention	Unit	Unit		Ground floor	Wet structure	Tenancy	uc	uc	uc	uc	uc	Ernawati, R., Syariah, A., Widiastuti, M. & Ratodi, M. (2018). *Spatial Adaptation on Home-based Enterprises Development in Kampung* [Paper Presentation]. In Proceedings of the Built Environment, Science and Technology International Conference (BEST ICON 2018), pages 54-61. DOI: 10.5220/0008907100540061
M19	**2**		**R**		**St**	Ragunath Yadav	Jahangirpuri, Delhi	General store	User intervention	Unit	Unit		Ground floor	Unclear	Unclear	uc	uc	uc	uc	uc	Kellett, P.; Tipple, A. G. (2000). The home as workplace: a study of income-generating activities within the domestic setting. *Environment and Urbanization, 12(1),* 203–214. https://doi.org/10.1177/095624780001200115
M20	**2**	**P**			**St**	Nilofar	Jahangirpuri, Delhi	Bangle making and selling	User intervention	Unit	Unit		Ground floor	Unclear	Unclear	uc	uc	uc	uc	uc	Kellett, P.; Tipple, A. G. (2000). The home as workplace: a study of income-generating activities within the domestic setting. *Environment and Urbanization, 12(1),* 203–214. https://doi.org/10.1177/095624780001200115
M21						Ujasiyu	Multiple states in India	-	intervention by other actors	Unit	-		-	Dry/ Hybrid	-	-	-	-	-	-	World Habitat. (2017). *Bringing light and air to homes in informal settlements.* https://world-habitat.org/world-habitat-awards/winners-and-finalists/bringing-light-and-air-to-homes-in-informal-settlements/#award-content

iihs®

INDIAN INSTITUTE FOR
HUMAN SETTLEMENTS

WIEGO

Women in Informal Employment
Globalizing and Organizing

When home serves as workplace, the interface of domestic and productive spheres has spatial and social effects on various users of the space, scaling at times to the neighbourhood and the city. This study looks at all the ways in which home aids work — spatially and infrastructurally — and illustrates the role of various factors and actors in engaging with and shaping the work-home boundary. Work-homes in the Global South often engage transversally with formal planning. Users of work-homes exercise their agency in complex ways to maneuver the work-home boundary, often making post-facto modifications to the work-home. The study collates a repository of spatial and temporal innovation strategies devised by users to balance domestic and productive spheres in their homes, as a site to derive lessons for planning, housing policy and architecture. It investigates the role of the state in spatially enabling or limiting work-homes, and using the Indian context as an illustrative example, suggests enabling frameworks in planning that address the spatial particularities of work-homes.