

# FLUID LIVING

Perspectives on the future  
morphological evolution of the dwelling space



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space.

Master's Thesis

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To my father, my grandmother, my brother and uncle.

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# ABSTRACT

This thesis works on the residential dwelling. Based on a brief historical excursus, this study argues that the dwelling has always represented the socio-economical nature of society and today is no exception. We currently find ourselves in the midst of yet another fundamental shift of values and lifestyles which will have to be met with new forms of living. This project puts forth the hypothesis that in order to address the needs of our changing society, new spatial solutions need to be introduced in our living environments. The goal of this study is to conduct a morphological investigation in order to initiate an exploration of possible principles that will guide architecture towards the future of the living spaces. This thesis does not aim to achieve a prototype, but it intends to be a starting point for a discourse that will result in prototypes in the future. Through a literature review of data and case studies, the demand that resulted from the ongoing social changes is identified and the first responses to the demand are analyzed. Consequently, theories and projects of reference architects are studied through formal analyses, drawing analyses and literature review in order to formulate a proposal for a possible conceptual basis to the search for the new forms of the future living environments.

# ARGUMENT

The residential dwelling has always represented the socio-economical nature of society, and the industrial era is no exception. The living trends of our time - such as isolated apartments for nuclear families and the house as a retreat from the chaos of productive work – are products that were carefully tailored for the industrial society and its social and economic system.

Today, we're in a situation where the line between work and leisure is blurring, living costs are rising and apartments are getting smaller, the suburban ideal is failing and the loneliness of individuals is growing. These changes have given way to a trend of shared living, in contrast to the isolated family living ideal of the previous decades. The literature review demonstrates that this trend, catalyzed by the young Millennial generation, has the potential to become a model that provides residential space for a variety of communities, from aging generations to parents with children, and more ambitiously to create intergenerational communities and extended families, as a response to emerging problematics on the issue.

This thesis argues that this fundamental shift in our values and societies needs to be met with new forms of living.

# HYPOTHESIS

Current discourse is characterized by a lack of experimental and innovative architectural solutions for the living spaces of our changing lifestyles. Majority of the first examples of coliving projects around the world are commissioned by entrepreneurs, startups, and developers, who offer all-inclusive, turnkey ready units, instead of community-driven activism. Housing associations are losing their funds to housing aid in form of personal rent subsidies, leaving the stage to the profit-driven private sector.

This situation has created shared living spaces that resemble branded hotels, and according to researchers such as Bond Society (architects Stéphanie Morio and Christelle Gautreau/ architect Hannah Wood), the hotel-like living environments that offer similar spatial organizations to very diverse communities around the world, fail to address certain dwelling needs.

This project puts forth the hypothesis that in order to address the dwelling needs of our changing society, new spatial solutions need to be introduced in our living environments.

# OBJECTIVE

This research aims to respond to the search for new spatial solutions by investigating the architectural possibilities in-between polarizations, such as inside-outside and most importantly, public-private, that are defining most of the design process today. This research aims to do so by addressing critically the relationship between individual, collective and public and the cultural relationship between the building and the city.

# QUESTIONS

Which actions in the spatial organization can create a variety of shared spaces in these new environments?

Which architectural elements can we redefine in order to introduce flexible and ambiguous spaces that allow users to interpret their living environment?

Which spatial qualities enforce the community without invading it's members' right to privacy?

# METHODOLOGY

The issue that is highlighted in the first two chapters through historical excursus and literature review on surveys and demographic studies, is further investigated with a methodology that puts together case studies, literature review and drawing analysis. This way, it was possible to test various concepts in different ways.

First, several case studies are selected to create a catalogue of precedents. This catalogue regroups, under three categories, recent projects from around the world, that claim to respond to the demand that is underlined in the second chapter. The first two categories are shared living projects created in response to affordability concerns and resulting tendency towards sharing. First of these categories represents examples of small to medium dimensions that contain from four to 52 units. Second category groups profit-driven brands' projects on co-living. These are either chains repeated in multiple locations or large-scale projects that contain up to around 400 units. The third category represents dwellings that, while designed for one family only, are nevertheless concerned with responding to the lifestyle changes mentioned in the second chapter. These projects are included in the catalogue because of their experimental and innovative approach to the organization of living spaces as well as because of their approach toward the family as a 'group of people living together'. This case study catalogue helps further clarify the weaknesses and strengths of the current situation in response to the problematic.

Subsequently, the resulting issues that characterize social and economic changes are brought into the field of architectural thinking. Reference architects that in the past four decades have brought forward alternatives to the modernist dwelling and architectural thinking are studied through literature review. In order to better understand their methodologies and philosophies, the literature review was accompanied by examples where these theories are applied.

Finally, drawing from the set of ideas in chapter three, three concepts are established and investigated through deconstructive drawing analysis of three case studies. In order to proceed with drawing analysis, a lexicon of useful terms is

established and then used as a toolbox during the drawing analysis. Departing from the state of the art of the case studies, through this analysis, various schemes are elaborated. These schemes aim to demonstrate the concepts through the actions that materialize those, and the spatial outcomes that are obtained. These schemes consist of morphological experimentations, especially simplifications through the elimination of some elements in order to study the use of other ones. The goal of this analysis is to identify and further elaborate concepts that can help stimulate the discourse.

# Chapter 1

## *Dwelling, in History*

Ordinary notions of today such as privacy and nuclear family have existed for a long time now, even though when viewed within the entire history of humankind, or that of sedentary living, it still remains a relatively small portion. However, these concepts had different meanings from which they have just recently evolved into our contemporary conceptions in Western society today. More importantly, throughout their history, these organizations constituted only one of the possibilities of dwelling and just recently became (the object of a propaganda that is convinced that this way of life is) the only acceptable, respectable but above all, the only natural one. This chapter aims to discover the patterns of behavior (and relationship) that brought us to construct our current opinion on the ideals of dwelling and to understand the motivations that lay behind this propaganda. It derives from the observation that these concepts are expiring in the current cultural and economic situation, and the curiosity of how questionable they are, based on their historical backgrounds. What we consider as the natural way that humans have always lived-and thus, should continue to do so- might be the result of a long term and well-thought campaign that aims to benefit economic and political systems more than the people themselves.

Mostly, modern architectural research has followed these conventions and concentrated on offering efficient ways to apply the modern housing scheme; cost-effective, energy-efficient, space-saving and so on.

This chapter is based principally on Pier Vittorio Aureli's scholarship where the organization of the domestic space serves as a tool to read the social structure of their time. Various social contingencies are assigned to different time periods where they become visible within the domestic space, as well as when they become interpreted similarly to our conventions today. Aureli argues that in the living space of yesterday, we can see a clear representation of how human life has been governed and guided by economic and political forces.

This study also follows and integrates the critical observations of several scholars and researchers that speculate a way forward -towards innovative lifestyles- through the understanding of what is natural and unquestionable, in order to then revisit the ones that aren't.

Pier Vittorio Aureli  
*Life, Abstracted*

“Architectural plan describes the way in which governmental powers capture and domesticate life.”

Niklas Maak  
*Living Complex*

“No one wants to freeze to death or be assaulted – humans, cats, and reptiles agree on this. Any other basic anthropological constants for habitation, however, are difficult to find.”

Niklas Maak  
*Living Complex*

“Ordinary things contain the deepest of mysteries. At first, it is difficult to see in the conventional layout of a contemporary house anything but the crystallization of cold reason, necessity and the obvious, and because of this we are easily led into thinking that a commodity so transparently unexceptional must have been wrought directly from the stuff of basic human needs.”

Robin Evans  
*Figures, Doors and Passages*

“Since the middle of the nineteenth century there have been no great changes in domestic planning [...]. Thus the social planning of architecture was more concerned with the fabrication of the buildings than with their occupation.”

## *UP TO 30000 BCE*

Before their extinction, Neanderthals lived in Eurasia for thousands of years. Their social structure has been an important research topic for many controversial studies. Until recently, illustrations of nuclear families of Neanderthals, with the man leaving for hunting and woman staying behind in the cave with the child, were very common. This shockingly similar scene helps to demonstrate that the stereotype of single-family living is actually natural and biological and thus, unquestionable. Pointing out examples of this representation especially in children's book, Niklas Maak argues that starting from the mid-nineteenth century, these images were used to turn contemporary social structures into constant of history, in order to promote the "politically desirable nuclear family life design."<sup>1</sup>

However recent findings demonstrate that nuclear family living was not the case for Neanderthals, Brian Hayden concludes in his article, through an overview of several opinions and findings, that evidence indicates they lived in social units of 12-25 members, including children and aged. Although strongly probable, it is not yet certain that these groups were organized into nuclear families, neither that they followed a sexual division of labor within the groups.<sup>2</sup>

Another important finding about Neanderthal social structure is the role of ritual in establishing communications between groups as well as in differentiating social status through different treatment in burial.<sup>3</sup>

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1. Niklas Maak, *Living Complex: From Zombie City to the New Communal*, trans. Bram Opstelten (Munich: Hirmer, 2015), p.122

2. Brian Hayden, "Neandertal social structure?", *Oxford Journal of Archaeology* 31, no. 1 (2012): 21.

3. Hayden, "Neandertal social structure", 16.

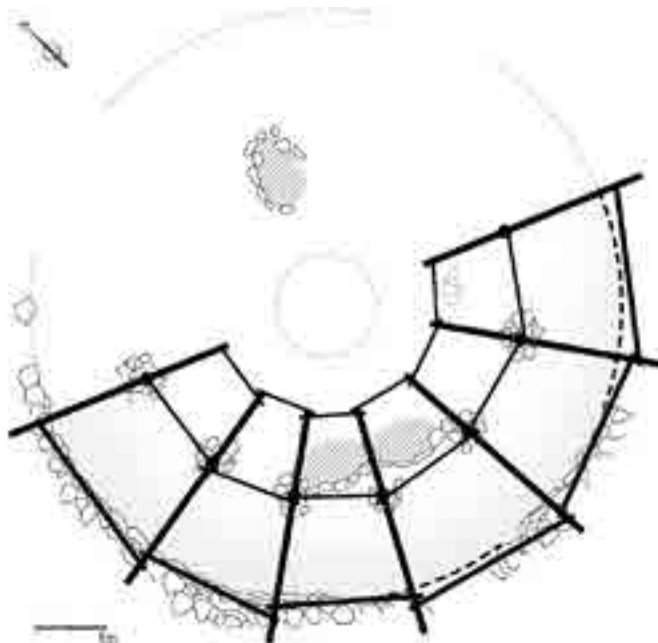


image representing the nuclear family idea of Neanderthals, taken from an article on a science website, about living space organization of Neanderthals.

Nomadic *Neanderthals* • social units of *12-25* members • *nuclear family* organization within the group *not proven* • *sexual division of labor* *not proven* • as opposed to: • nuclear Neanderthal family • man leaving to *hunt* • woman stays *behind in the cave* with child • represented in *children's book* in industrial modernism • *illusion* that nuclear family has *natural roots*

## 13000 - 10000 BCE

*unpredictable* environmental conditions dominate *nomadic* life • *sedentarism* comes from a desire for *stability* • *rituals* give predictability to environmental phenomena • rituals start being performed *inside* • places for worship are constructed with *geometry knowledge* • *geometry* demonstrates precision • *precision* demonstrates an initial process of *designing* • shelter doesn't need a geometrical plan • *architectural planning* starts being used for dwellings as well • *house* becomes more than protection • life is *ritualized* • house becomes the *ritualization of life*



Proposed reconstruction of Shelter 51. By Gil Haklay & Avi Gopher.  
<https://doi.org/10.1371/journal.pone.0130121.g009>

*“A ritual is a set of actions performed according to a prescribed order. Its function is to provide an orientation and continuity on which patterns of behavior can be established and preserved.”*

*Pier Vittorio Aureli, in “Life; Abstracted”*

When tracing the architectural plan back to its origins<sup>4</sup>, Aureli argues that the planning and designing of the living space points to something more than just the search for shelter, it indicates ritual. When mankind was living in uncertain spatial and temporal condition, the ritualization of life helped them to establish a pattern in the uncertainty of their environment. This is how he comes to consider the floor plan as the result of two factors; the ritualization of life and abstraction.<sup>5</sup>

Uncovered in the 1950s in the excavations at Eynan, Israel, the constructions belonging to Natufian culture have become the symbol of early sedentism. The Natufians were, to our knowledge, amongst the first communities to use architectural planning combined with geometry in order to organize the space of daily life, and to “design” their buildings in advance. Harklay and Gopher indicate that the accuracy of the circular wall with exact concentricity and the regular rhythm of the postholes demonstrate an intention to produce a precise circular space, by using geometry knowledge, and advanced techniques such as a compass arm.<sup>6</sup> This precision and planning ahead in the designing of the surroundings is interpreted by Aureli as a “ritualistic interpretation of space” as well as “an abstraction that gives geometric accuracy to the space.”<sup>7</sup> Thus, when used in planning the house, the house becomes more than simple protection, a ritualization of life.

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4. Pier Vittorio Aureli, “Life, Abstracted: Notes on the Floor Plan,” E-Flux Journal Representation, October 18, 2017, <https://www.e-flux.com/architecture/representation/159199/life-abstracted-notes-on-the-floor-plan/>

5. He explains abstraction as a tool to obtain commensurable entities out of the social, such as labor, space and human relationships.

6. Harklay and Gopher argue that this construction could be a communal meeting place, rather than a dwelling. See Harklay, and Gopher. “A new look at shelter 131/51 in the Natufian site of Eynan (Ain-Mallaha), Israel.” PLoS one 10, no. 7 (2015): e0130121. <https://doi.org/10.1371/journal.pone.0130121>

7. Aureli, “Life: Abstracted.”

## 7000 BCE

*gendered* division of labor • *separate buildings* for separate roles  
• *reproductive* activities assigned to *women* • reproductive activities *in a separate building* • *administrative* activities assigned to *men* • administrative activities *in a separate building* • women separated from the administrative activities • *women limited* to reproductive labor • women have the same role *as animals* • animals are *goods* • animals are represented *in clay* for exchange  
• women are represented in clay • *women are exchangeable goods*



The houses found in Balikh Valley in northern Syria demonstrate a clear gendered division of labor. Separate buildings of distinct shapes contained separate roles. Circular buildings housed the activities assigned to women, such as food preparation and weaving, while rectangular buildings were dedicated to hospitality, storage of goods and clay figurines used in trades, managed by men. Clay figurines have been the key elements in understanding social structure that were present in these settlements and in establishing the gendered division of labor that accompanied the structural separation. Archeologist David Wengrow studies these figurines in his article "The Changing Face of Clay", and points out their role in transactions between village communities based on the vastness of the area in which these figurines emerge at the same time (from Mediterranean coast to the Persian Gulf). The clay figurines found in the rectangular buildings represent "humans, animals, and mostly women, with full breasts and hips and protruding bellies suggesting pregnancy". Used for trades, they demonstrate the ritualization of ownership that occurs in this epoch, including women as exchangeable goods which points to a social separation of roles.<sup>8</sup> Such separation limits women inside a separated building for men as well as to productive and reproductive activities, excluding them from political and economical decisions.

Seated female  
sculpture in ceramic  
and paint.  
From the collection  
of The Metropolitan  
Museum of Art.  
Image taken from  
[https://www.  
metmuseum.org/  
art/collection/  
search/327066](https://www.metmuseum.org/art/collection/search/327066)

8. David Wengrow, "'The changing face of clay': continuity and change in the transition from village to urban life in the Near East," *Antiquity* 72, no. 278 (1998): 784.

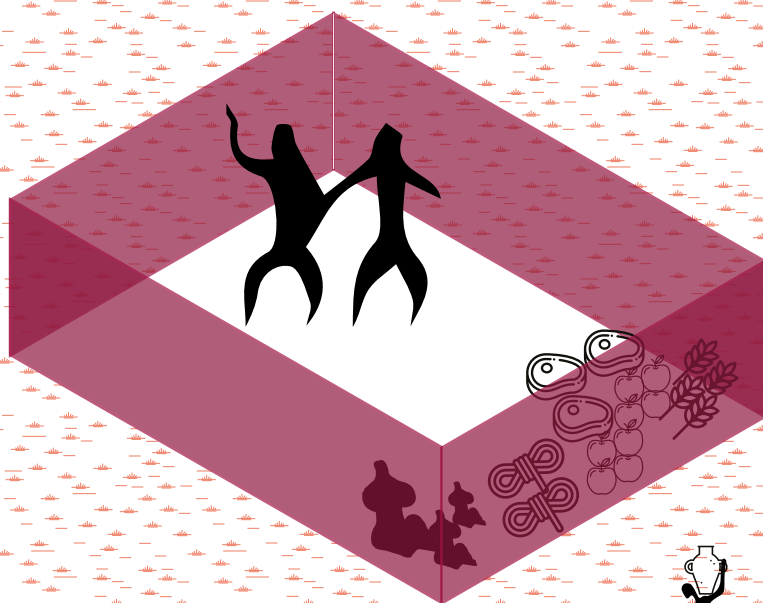




Illustration based on Wengrow's description of Halaf period habitations in northern Syria, taken from the article "The Changing Face of Clay."

## 5000 - 4300 BCE

buildings no longer separate • one *internally segregated* building • *tripartite* house • every partition encloses one *sphere of labor* • representational space in the center • men for *administration and representation* • women enclosed in the *reproductive sphere* • reproductive sphere *hidden from public* • women enclosed inside the house • the *appearance of women* in the village is further *limited* • *machinery intensifies* women's work • *hierarchy* within the house • *labor is domesticated*



Ceramic plate and cup belonging to Ubaïd period, from the collection of The Metropolitan Museum of Art. Regularity of the form points out to the use of machinery in the production.

Image taken from <https://www.metmuseum.org/art/collection/search/324091>

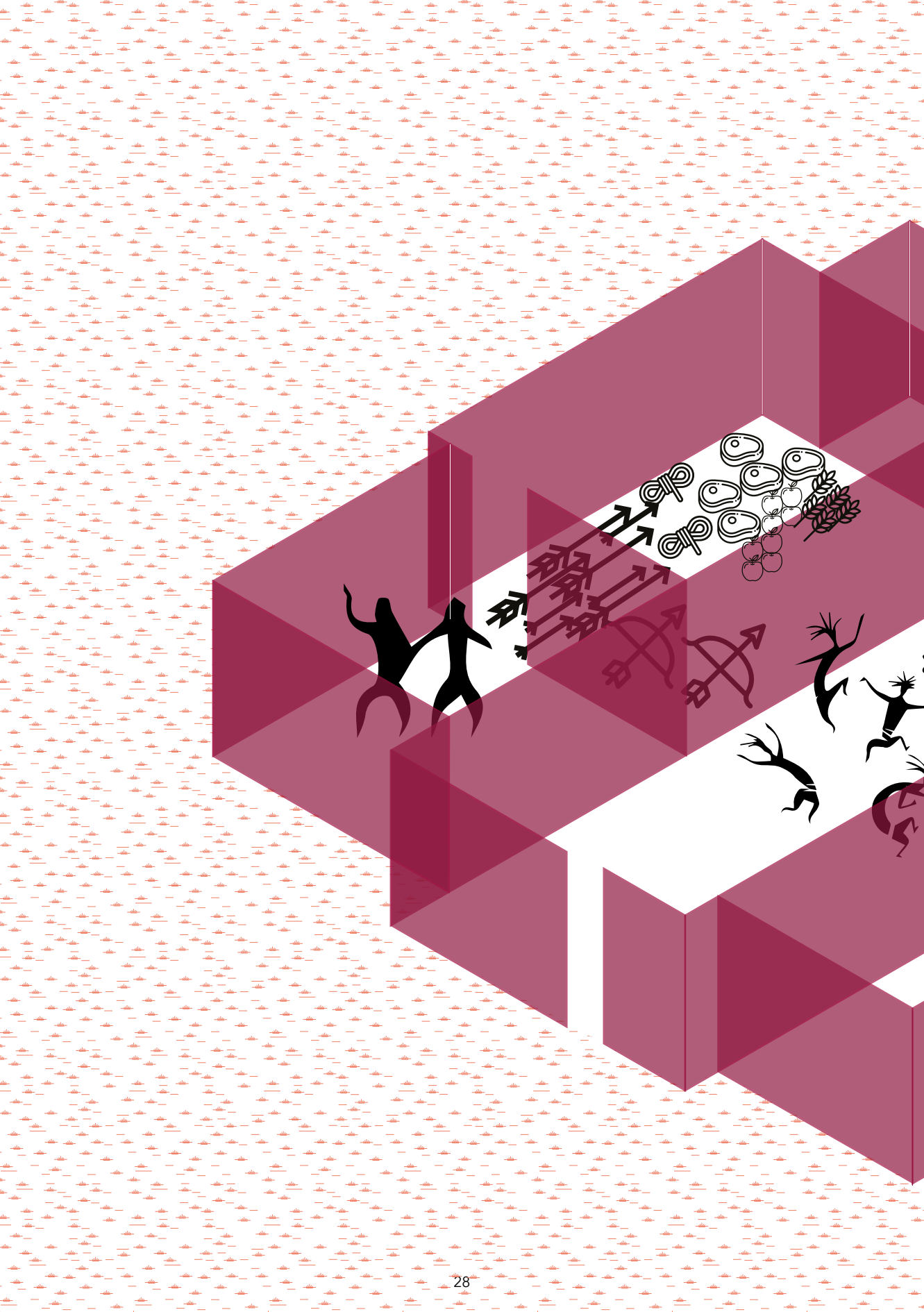
From the Late Ubaïd period, the 'tripartite house' becomes the standard framework of domestic life where the house comes to include both symbolic and practical spaces divided internally. The typical tripartite house, as demonstrated in a scheme by Wengrow, consists of a representational space in the center dedicated to ritual and hospitality, which divides the remaining activities into two separated poles, while also hiding them from the public.

Women are enclosed in the part that is dedicated to food processing, pottery production, weaving and nurturing children. This isolation of women decreased the time they spent in public "diffusing the identity of women as a self-conscious group within the village"<sup>9</sup> and intensified the labor, together with the introduction of machinery.<sup>10</sup> Meanwhile, men were occupied with storage and administration, in a separate pole within the house.

This partition replaced the organization where the heart of the house served as a shared locus of production, exchange, and ritual. Instead, house was organized in a hierarchy that valued male activities over reproduction and production.

9. Wengrow, "The changing face of clay", 791.

10. Halaf period ceramics were created entirely by hand but in Ubaïd ceramics, pivoted work surface was used, to "regulate and accelerate production while encouraging the creation of simple line designs by applying paint to the rotating vessel." See Wengrow, "The changing face of clay", p.791.



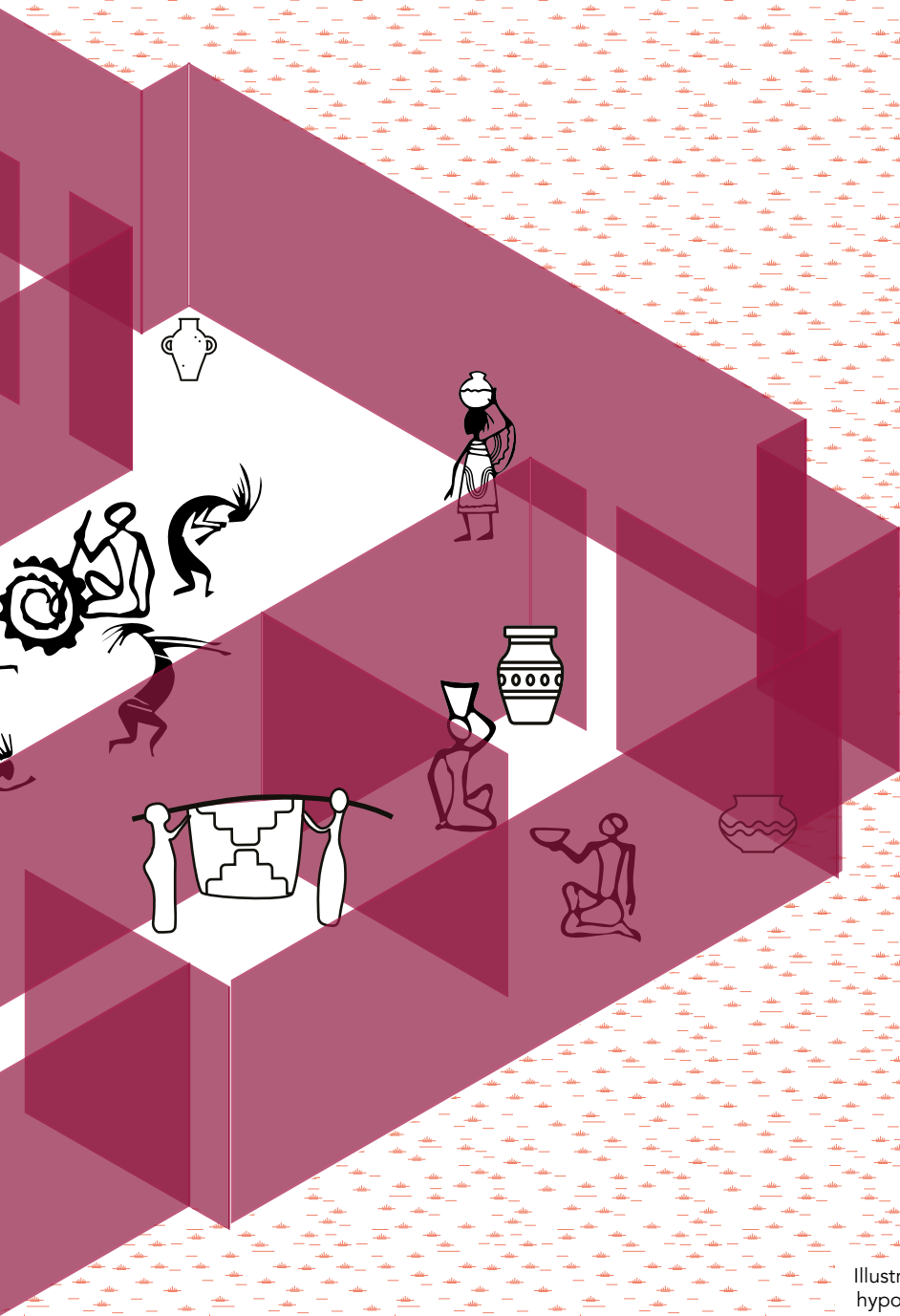


Illustration based on Wengrow's hypothetical model of tripartite house belonging to the Late Ubaid period, taken from the article "The Changing Face of Clay."

*ANTIQUITY*

*economy* comes from *oikonomia* • *oikonomia* means *household management* • *oikos* is *household* • *household* is made of three *despotic relationships* between: master and slave, husband and wife, parent and child • *household management* is the ritual of domestic life • *household management* is *labor* • *labor* is reproduction and maintenance of biological life • *household management* is assigning moments of daily life to specific places within the house • *house* is the place of *oikonomia* • “house is the most tangible representation of economy” • *economy* is a prerequisite for *politics* • house is *property* • property depends on *citizenship* • women of the household shouldn’t couple with non-citizen visitors in order to keep economical integrity • need for surveillance • need for *privacy*

## 800 BCE

### Archaic Greece

*“Such an exclusive use of domestic space is contrary to the flexible functions of the other spaces in the Greek house, and gendered space within the house is not as easily identified as the semantic oppositions of andron and gynaikon suggest.”*

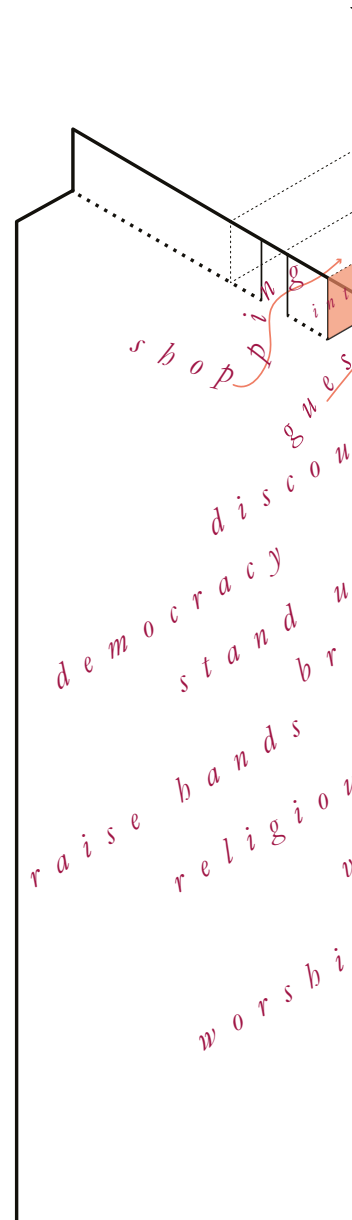
*Kathleen Lynch, in “Thoughts on the Space of Symposium”*

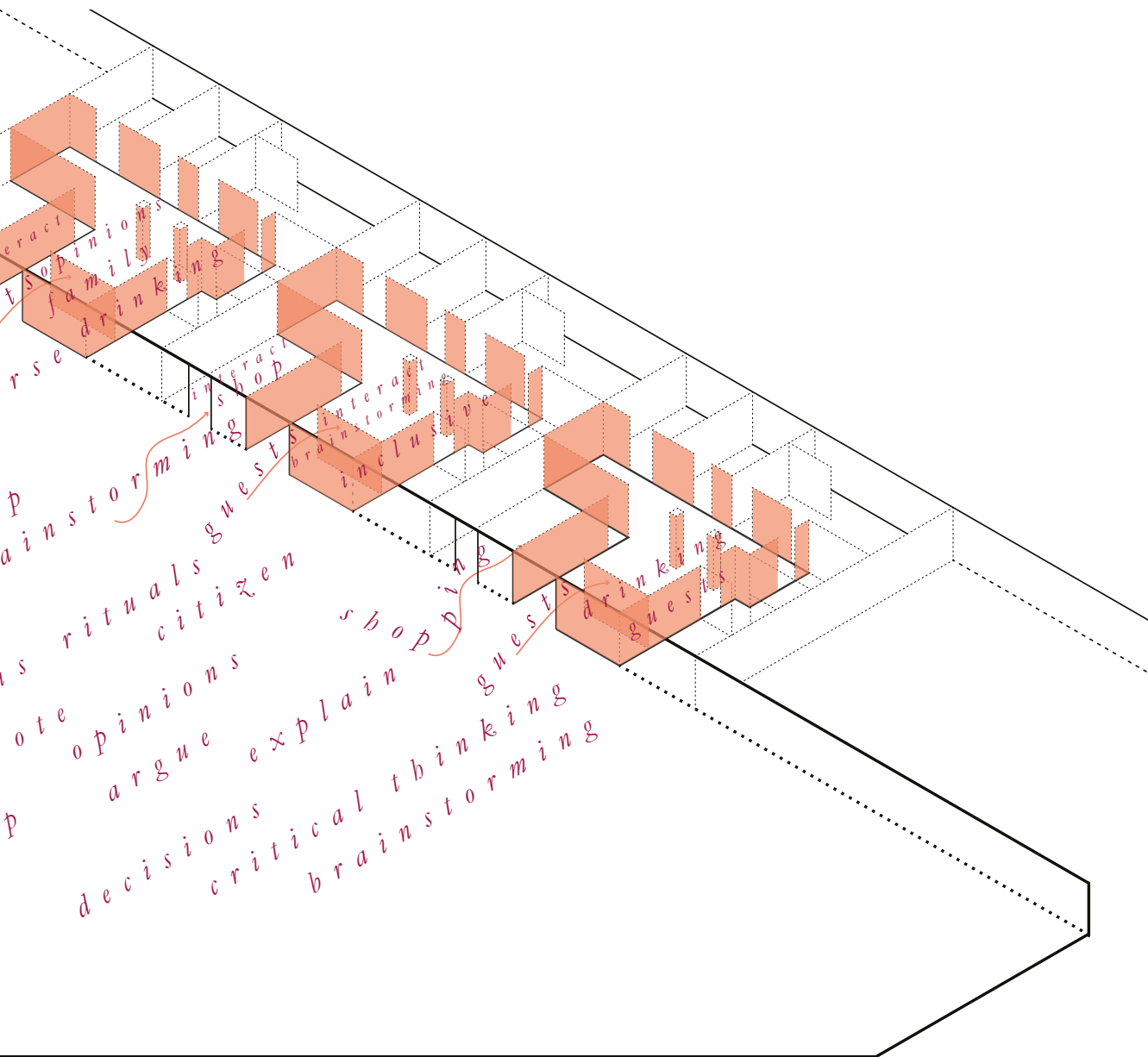
Archaic Period precedes the Classic Period in Greek Antiquity. During this period, symposia, in specifically constructed androns, were reserved for few aristocrats and members of higher classes. However, drinking as a communal activity to strengthen relationships existed for all the population. The andron was the official space to host the drinking rituals of the aristocrats, but not yet introduced to the wider range of houses. In her article “more thoughts on the space of symposium”, Kathleen Lynch explores the space that hosted these activities before the andron was diffused in the houses of lower class citizens during the Classical Period. She argues that in the Archaic Period, these less formal drinking activities took place possibly in the courtyard and included the entire household.<sup>11</sup>

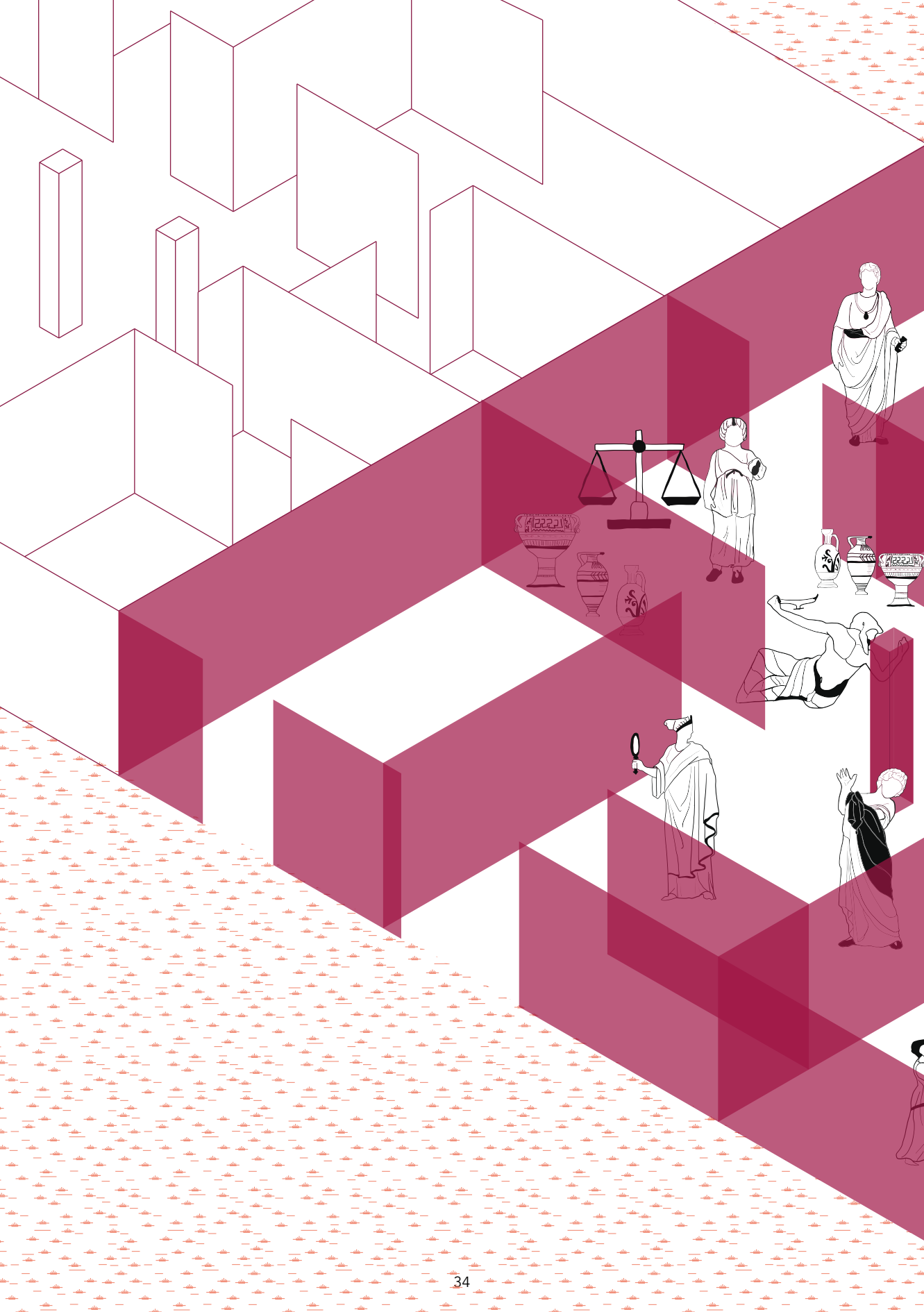
Hoepfner; another scholar that studies these traditions argues that based on the houses on the Halikarnassos Peninsula that belong to the Archaic Period, the courtyard was still the place of socialization and gatherings, and women “moved among men without any inhibitions.”<sup>12</sup>

11. Kathleen M. Lynch, “More Thoughts on the Space of the Symposium,” *British School at Athens Studies* 15 (2007): 247. <http://www.jstor.org/stable/40960593>.

12. Translation by Niklas Maak in from the original text in German, by Wolfram Hoepfner : Wolfram Hoepfner, “Die Epoche der Griechen,” in *Geschichte des Wohnens*, vol. 1, 5000 V. CHR. – 500 N. CHR.: Vorgeschichte – Frühgeschichte – Antike, ed. Gerhard Zimmer (Stuttgart: Deutsche Verlags-Anstalt, 1999), 131. Taken from Niklas Maak, “Post-familial communes in Germany,” *Harvard Design Magazine: architecture, landscape architecture, urban design and planning* 41 (2015): 80.







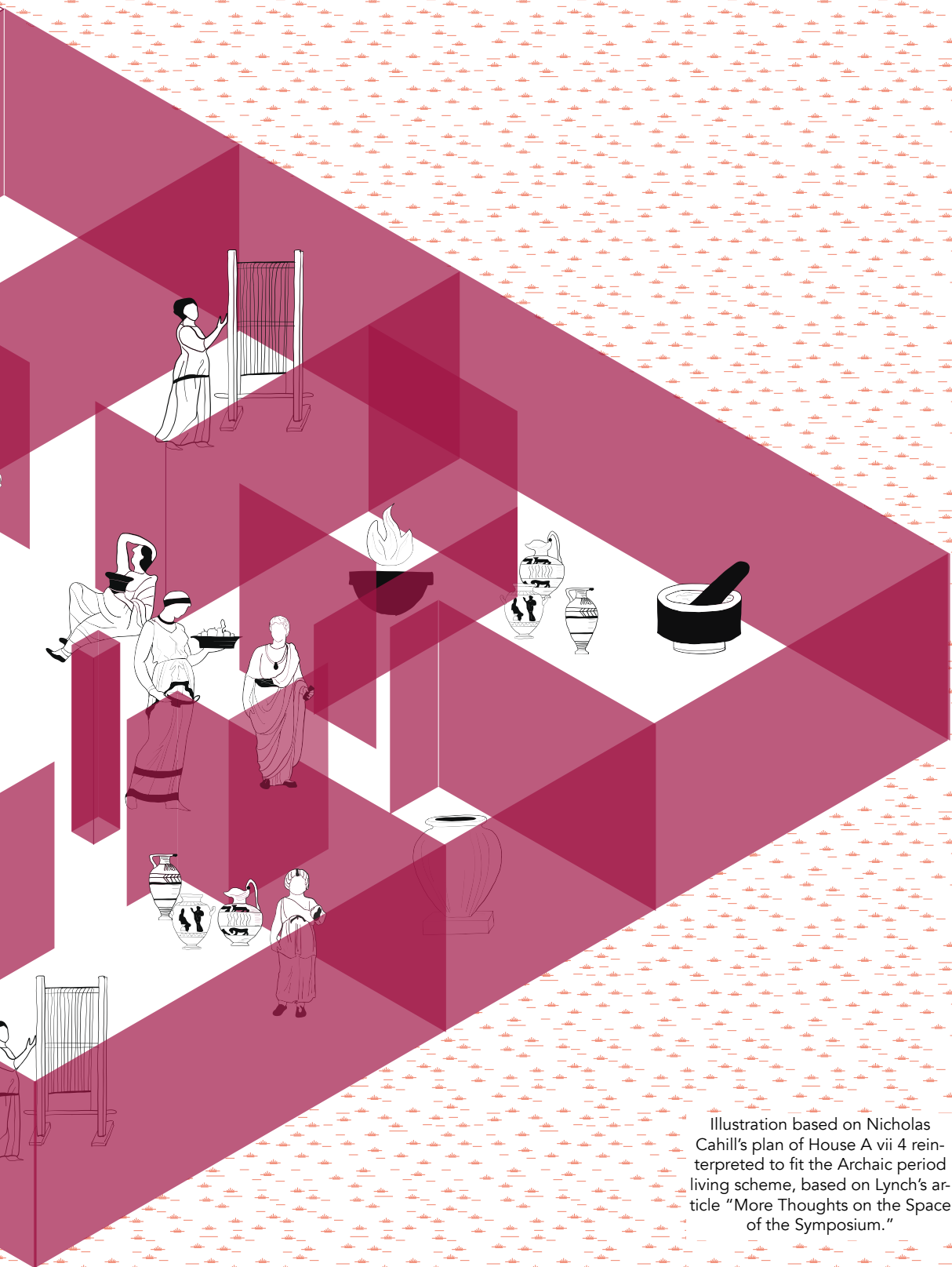


Illustration based on Nicholas Cahill's plan of House A vii 4 reinterpreted to fit the Archaic period living scheme, based on Lynch's article "More Thoughts on the Space of the Symposium."

## 450 BCE

### Classical Greece

In this period, the organization of the Greek polis begins to reflect the separation between political action and economy. While the shared spaces of the city such as agora, hosted political action, the private space of the house was dedicated to activities of reproduction and production. The enclosed nature of the Greek house of the Classical period demonstrates an intention to hide 'labor', that constitutes the maintenance of biological life, even though it is the primary condition in order to participate in politics.

This separation accentuates the division of human activities in three spheres: labor, work, and political action, as argued by Hannah Arendt in her book *The Human Condition*. She considers labor as the set of activities concerning the biological reproduction of the species, such as cooking, eating and sleeping. Thus labor is life, or *zoe*, it is animal and biological life. Work is described as the production of objects that may outlast the life of human beings, and political action represents the "meaning of existence, independent from life", it is *bios*, individual and sentient. Arendt argues that political action must be independent of labor.<sup>13</sup>

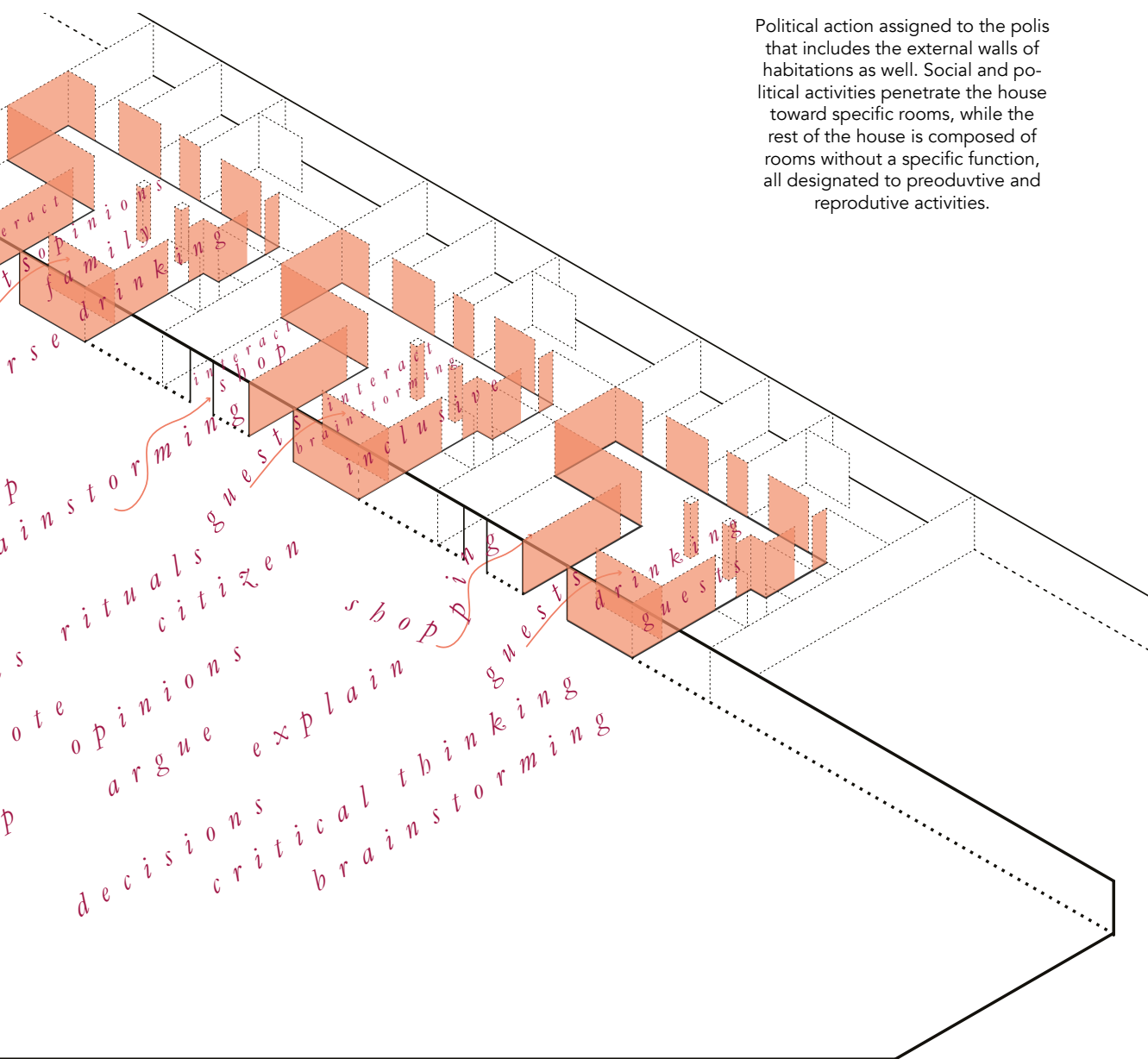
When, with the formation of large-scale societies, religious rituals and political action were separated from the rest of the rituals that organized the everyday life, Aureli argues that the "rituals of domestic life became increasingly focused on the management of the household."<sup>14</sup> *Oikonomia*, meaning household management, refers to the labor of maintaining the biological life within the house. The *oikos* (the household) in the Greek house was composed of three types of relationships, the despotic relationship between the master and slave, the conjugal relationship between husband and wife, the parental relationship between parent and child. Associated with the slaves, the sphere of labor represents the most generic and the least human activity, even though it is the prerequisite for participating in politics.<sup>15</sup> In ancient Greece,

13. Hannah Arendt, *The human condition*, (University of Chicago Press

14. Aureli, "Life: Abstracted."

15. Maria S. Giudici and Pier V. Aureli, "Familiar Horror: Toward a Critique of Domestic Space." *Log* 38 (2016): 109





Political action assigned to the polis that includes the external walls of habitations as well. Social and political activities penetrate the house toward specific rooms, while the rest of the house is composed of rooms without a specific function, all designated to preoduvtive and reproductive activities.

the house and the polis were interdependent. Although the Greek house was an enclosed and self-sufficient entity, it also contributed to the organization of the polis with its exterior walls. These walls were considered a public space and were rarely pierced by windows. The only part of the house with a direct connection to the outside was the shop.<sup>16</sup>

The opinion that puts labor on the second plan is evident in the organization of the house in ancient Greece, where reproduction and maintenance of biological life is hidden from the public visibility. The houses of Olynthus, dating back to 450 BC are considered as a consistent representation of the Greek house. Overall, we can see an introverted form, organized around a courtyard, and sealed off from the city with walls that allow a single entry from the outside. In the House A vii 4, the daily objects were found distributed rather homogeneously in different rooms and the courtyard, showing that the specialization of architectural spaces was not strict.<sup>17</sup>

The most important space remains the courtyard that organizes the distribution and functioning of the household. The house is organized around this space that provides access to all of the remaining parts of the domestic unit. The courtyard also includes essential elements for living such as basins for rainwater and wells. The ancient Greek house only has one entrance, thus the courtyard also serves as a space of surveillance. This is where privacy becomes a condition within the house, and not only a condition of separating the household from the outside and guests.<sup>18</sup>

The plan is divided into two functionally defined spaces: oecus and andron. The oecus complex was the infrastructural core including a kitchen with a central hearth (chimney, well and cooking equipment) dedicated to sustenance of life and reproduction, away from the polis. However, numerous studies demonstrate that this 'women's quarters' is more a conceptual area, varying based on the time of the day, than a dedicated room. Spaces dedicated to women's activities such as kitchen existed, but there were part of the fairly open plan of the house where every room is accessible from the courtyard, and activities spread through several rooms. For example more than half of the rooms in Olynthus shows evidence of

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16. "House A vii 4", Massachusetts Institute of Technology, Accessed October 15, 2018

<http://web.mit.edu/21H.405/www/olynthos/vii4.html>

17. Nicholas Cahill's plan of House A vii 4 that includes drawings of artifacts found in each room is considered, by many historians, as the closest example to the prototypical Olynthian house. Taken from Cahill, Nicholas. *Household and city organization at Olynthus*. Yale University Press, 2002: 104.

18. In the ancient Greek polis, only citizens of the polis had the right to own domestic premises and citizenship depended on ethnicity and gender. Only men native to the city-state in which they lived could be considered as citizens, and so, own property. For households that rented part of their premises, surveillance within the house was crucial, in order to prevail contact between non-kin group males and kin-group females, which could compromise the ownership of the house. Giudici and Aureli, "Familiar Horror: Toward a Critique of Domestic Space", 109.

cooking. Most importantly, families except for wealthy ones couldn't afford to seclude women in the house since they had productive duties outside as well.<sup>19</sup> Similarly, the andron that is known as the place of male dining, the space of hospitality and representation, should be understood as a conceptual space.<sup>20</sup> Because of its representational status in contact with the public, the andron is considered the most important part of the house, thus decorated with particular ornaments. The andron and the anteroom (that leads from the courtyard to the andron) were the only rooms that were painted.<sup>21</sup> Androns started to be present in more houses with the democratization that consisted of the participation of non-aristocrats in political scenarios, as well as in drinking events. This is the most important difference between precedent periods of Greek house to the Classical period. Before andron was introduced in houses, gatherings were open to the entire household and the dinners that were hosted in androns, called symposium, were exclusive events for aristocracy.<sup>22</sup> The oecus and the andron were connected through intermediary spaces such as porches and transit rooms that served as buffers in order to assure a smooth distribution within the oikos. Even though the andron is reserved, on occasion, to male members of the household, the oecus is not yet an enclosure for women's activities in classical Greece.

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19. Cahil, *Household and city organization at Olynthus*. Yale University Press, 2002: 191.

20. Lynch, "More Thoughts on Symposium", p.244.

21. MIT, "House A vii 4".

22. Francisco J. Murcia, "Wine, Women, and Wisdom: The Symposia of Ancient Greece", *National Geographic History*, January/February 2017.

<https://www.nationalgeographic.com/archaeology-and-history/magazine/2017/01-02/ancient-greece-symposium-dinner-party/>



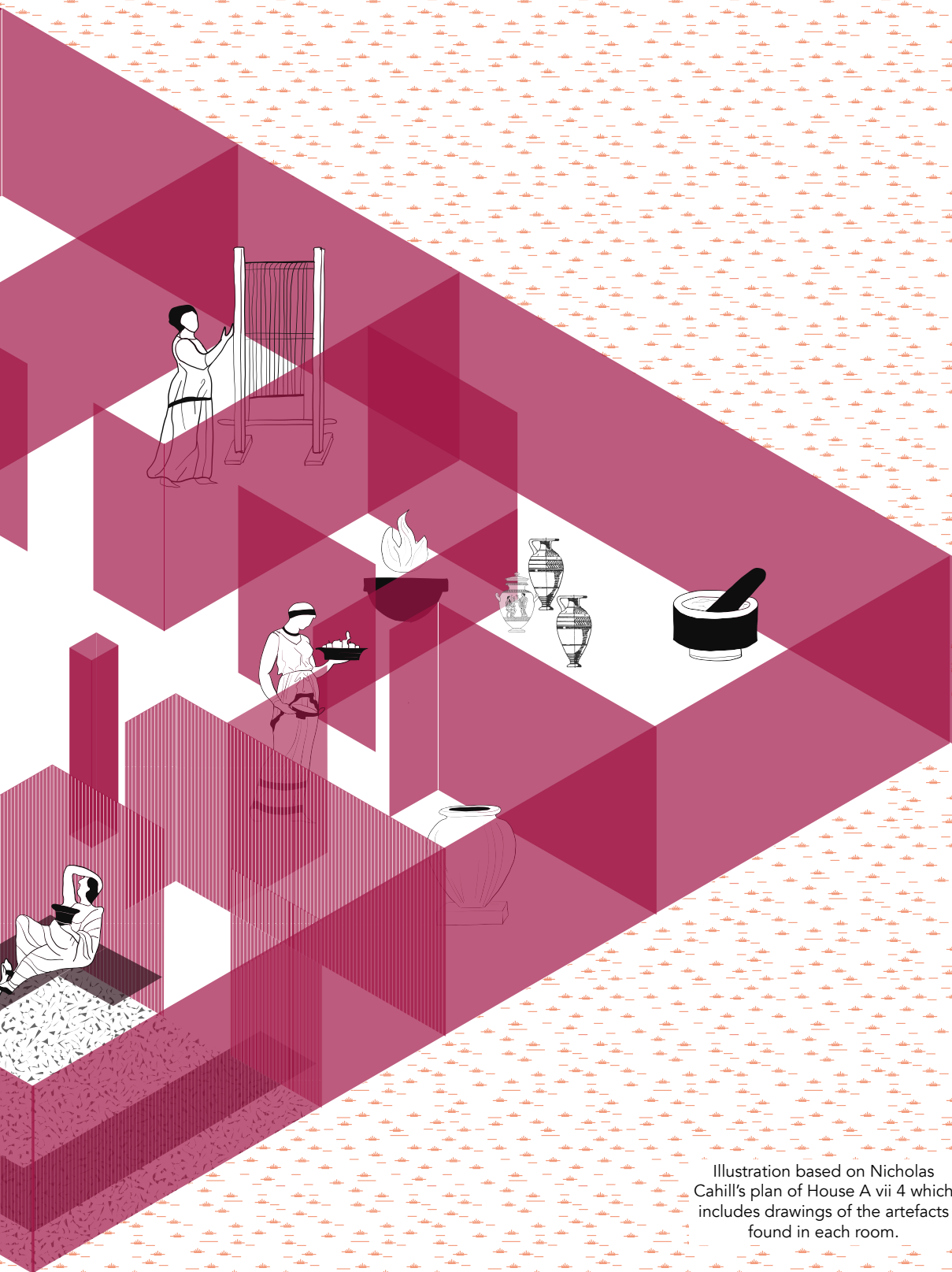


Illustration based on Nicholas Cahill's plan of House A vii 4 which includes drawings of the artefacts found in each room.

79 CE

## Roman Antiquity

*“These houses [domus] were, one model of habitation among many and not the norm: the “whole house” that was occupied by extended families dominated.”*

*Niklas Maak, Living Complex*

As Maak points out, the private residence for a single family is not a recent invention. **Domus** is the Roman example of dwelling where private and public distinction becomes visible in parallel with the dedication of the living space to one family. However, it is important to remember that these weren't the only typology available at the time.

Aureli uses this typology to demonstrate two characteristics of family as we know it today; the rooted existence of power relationships, as well as the juridical and economical nature of families. He argues that these characteristics that are clearly visible within the organization of the typology, bear the first signs to the contemporary Western understanding of family.



Reconstruction of the atrium by Sir William Gell, *Pompeiana*, London, 1835, II, pl.36



*Domestic.* Deriving from the Greek root 'demo' that means 'to build', the term 'domestic' shares the same root with other, not so neutral, words. "[...] words denoting potentially violent control, first and foremost *dominus*, "the head of the house", and its various declensions: domination, dominion, and so on."<sup>23</sup> Based on this observation, Aureli argues that the domestic sphere implies the presence of a paterfamilias, owner, or landlord, creating a hierarchy based on a set of power relations.

*Family.* Based on the word's Latin root familia that describes a congregation of slaves and relatives headed by a paterfamilias, Aureli argues that the very concept of 'family' normalizes this type of relationship. "As such, the family is not simply a biological and affective unit but rather an economic and juridical construct whose goal is to ensure both the reproduction and the population and the general order of society."<sup>24</sup>

*Family as an estate.* Following Yan Thomas, a Roman-law scholar, Aureli composes his third argument. Thomas points out that Roman law was the phenomena that initiated the inclusion of things in the domain of law. When things acquire an economic value, it is considered a legal abstraction that is based strictly on exchange value. The Romans initiated this way of thinking based on economic value, still valid in our day, when they first defined res publica and res sacra as parcels of land offered to the gods, thus excluded from commerce.<sup>25</sup> This practice has defined the remaining territory as private land, res privata, that is, as something that can be traded, as something that can acquire an exchange value. "This implied that Romans' legal strategy of exclusion and inclusion defined things according to whether it was possible to exchange them."<sup>26</sup> When included in the domain of law, objects became exchangeable goods. Aureli points out that the family in Roman culture was defined more by law than by biological heredity, which meant that the head of the family had the right to legally adopt adult persons into the family or to exchange status of family members in order to manage the economic conditions of his property.

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23. Pier V. Aureli and Maria S. Giudici, "Familiar Horror: Toward a Critique of Domestic Space." *Log* 38 (2016): 113.

24. Aureli and Giudici, "Familiar Horror: Toward a Critique of Domestic Space", 113.

25. Yan Thomas, "La valeur des choses. Le droit romain hors la religion", in *Annales. Histoire, sciences sociales*, vol. 57, no. 6, pp. 1431-1462, Cambridge University Press, 2002, quoted in Aureli and Giudici, "Familiar Horror", 114

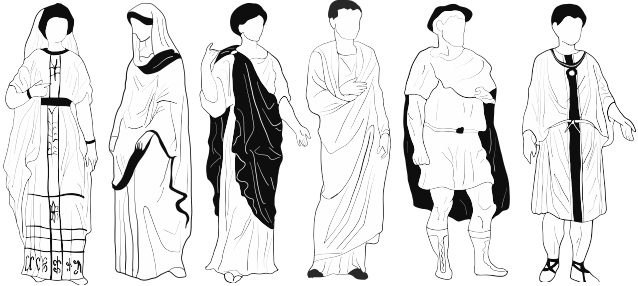
26. Aureli and Giudici, "Familiar Horror", 114.

# ROMAN DOMUS

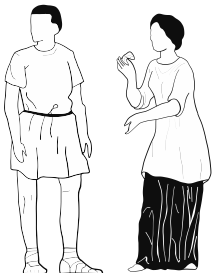
extended family  
and despotic relationships



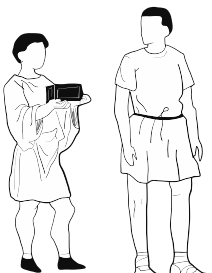
**paterfamilias  
and matrona**  
conjugal relationship,  
wife is part of her father's  
or her husband's familia.



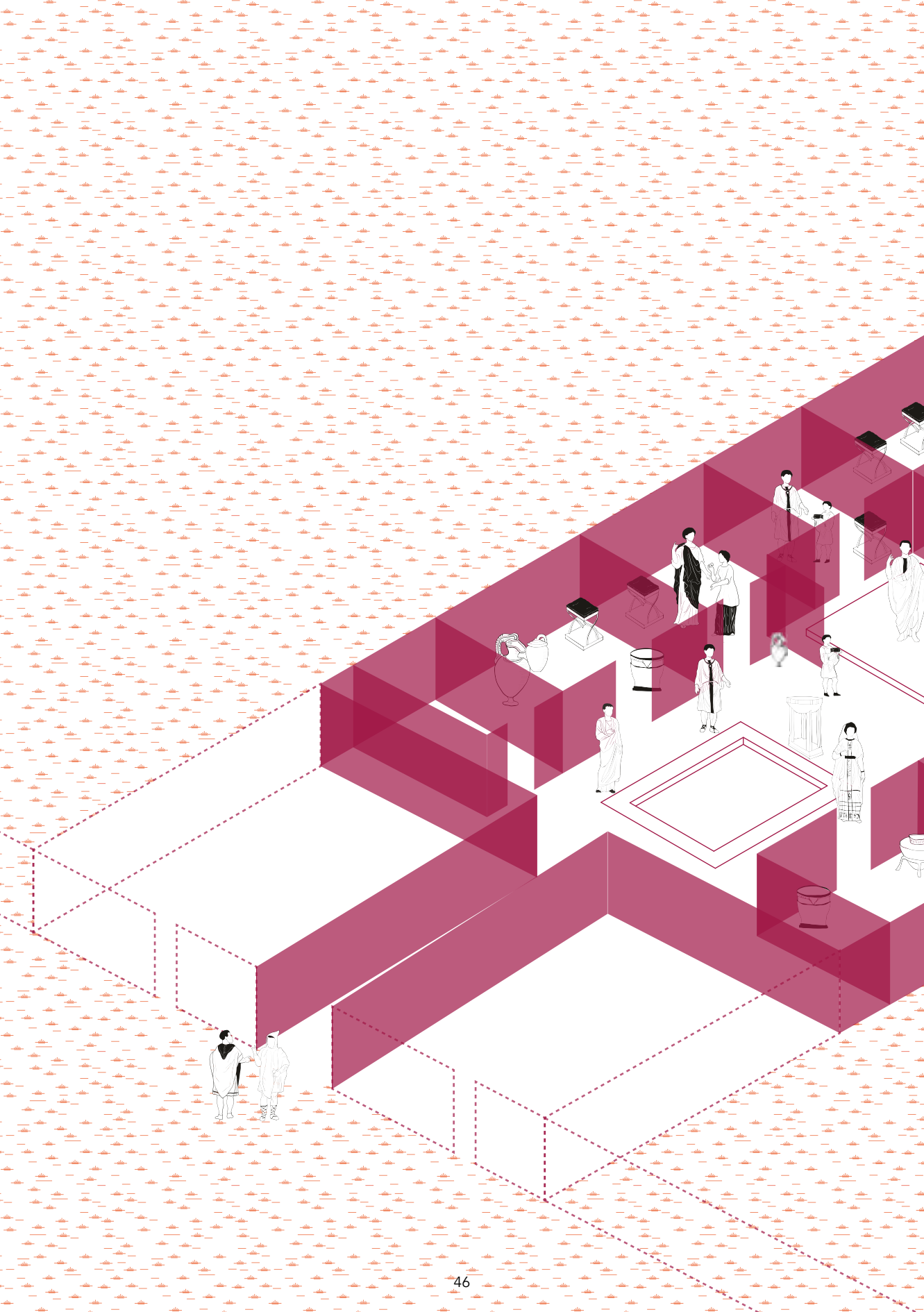
**relatives  
and children**  
kinship bond and  
parental relationship,  
brothers and sisters of  
paterfamilias, elderly and  
agnates and cognates.



**freedman**  
master - skilled worker  
relationship,  
allowed to have their  
own household,  
important role such as  
financial management of  
the household,  
strong affectional bond  
with the masters.



**slaves**  
master - servant  
relationship.



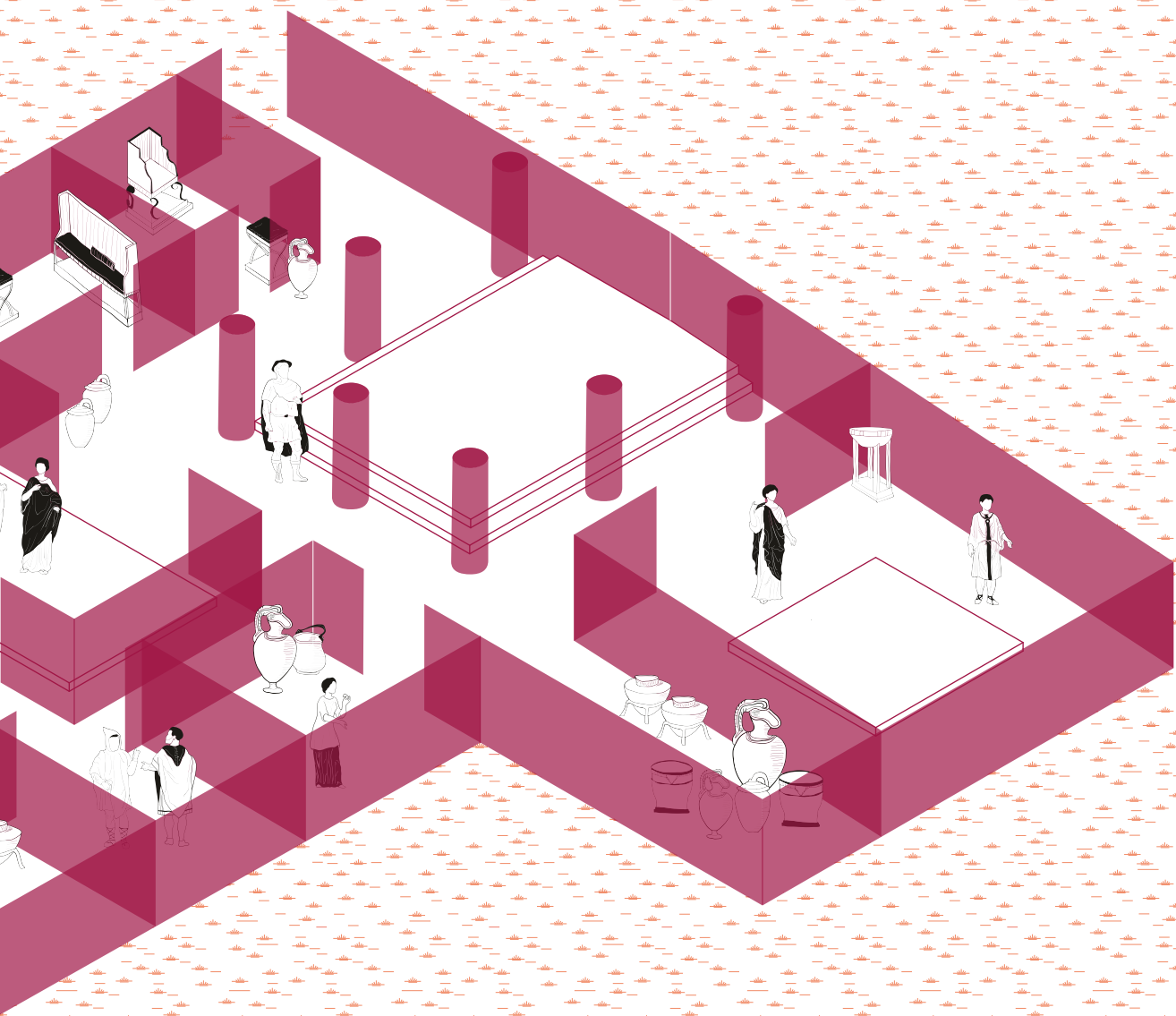


Illustration based on the ground floor plan of "The House of the Tragic Poet" in Pompeii.

The nature of the Roman house that not only housed the familia but also provided a place for business and worship, allowed it to form a microcosm of the city inside its walls. Public was welcomed inside for several occasions and the distinction between public and private became almost imperceptible. House of the tragic poet, uncovered in Pompeii around 1824 has become the representative example of these houses.<sup>27</sup>

- With doors often open to the street, the house was organized along the main axis that linked the entrance, the atrium, and the peristyle, almost like a public forum.
- The axial organization celebrates the authority of paterfamilias, with the master bedroom, tablinum, placed at a visually dominant position on the main axis, between the atrium and the peristyle.
- Tablinum, the room that contained the marriage bed was the most important room of the house and later became an office for where family records were preserved.
- Service spaces were pushed away from the central axis.
- Remaining space around the axis was filled with multiple rooms of similar dimensions that were adapted to accommodate any of the family's needs. Thus the rooms were defined by their use instead of their space.
- Slaves were part of the familia, so they could sleep everywhere.

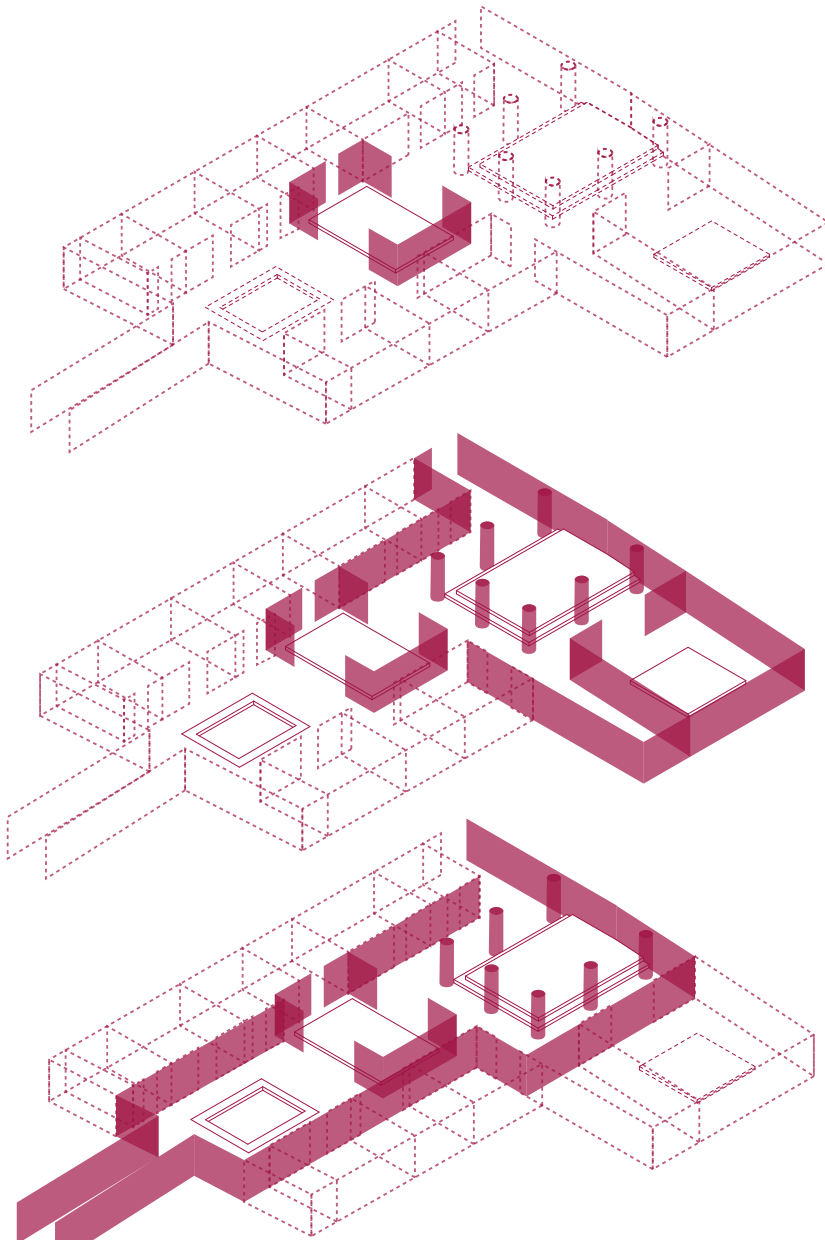
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27. "House of the Tragic Poet", Parco Archeologico di Pompeii, accessed October 29, 2018.

<http://www.pompeiiisites.org/Sezione.jsp?idSezione=599>

# ROMAN DOMUS as an extension of public space

sequence of public spaces within the domus



## Main axis

functioning as an extension of the public space of the city, it is a succession of spaces; entrance (ostium), atrium, tablinum and

## Secondary axis

reserved for more intimate guests, entering from the secondary door, lead to the peristyle and the triclinium.

## Tablinum

previously room of the marriage bed, later becomes the office, located at a strategically at the hearth of the house for surveillance.

## *MIDDLE AGES*

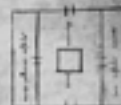
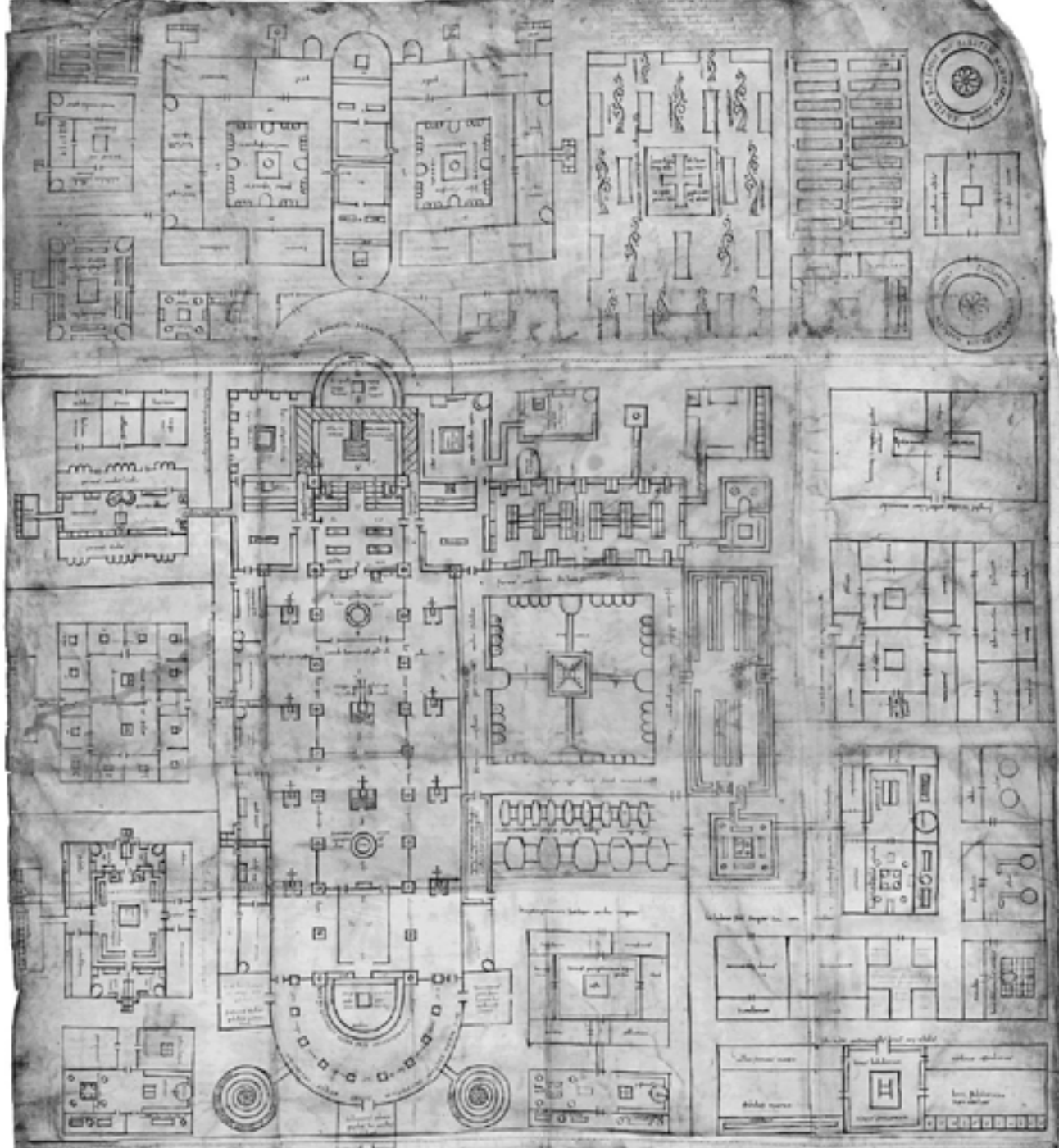
*monastery* as a characteristic of the time • monastery includes *all aspects of life* • *ritualistic* organization within • *ritualization of life* • *labor* is part of the monastery living • *labor is accepted* as a dignified aspect of life • *labor* becomes part of life • *peasants live* in simple houses • *separated* from each other • *families isolated* • lack of public *interaction*

The monastery in the Middle Ages is where labor becomes accepted as a dignified aspect of life, contrary to the antiquity where it was considered the least human activity, assigned to animals and slaves. Monastic life included all aspects of life in its ritualistic form. A monk's life had to be dedicated voluntarily and completely to the life in the monastery, in all of its aspects. The Architecture of the monastery is a clear example of architectural plan as ritualization of life. Here, the ritualistic organization doesn't only include religious acts but also working, eating, and sleeping, translated into a typical space: dormitory, library, workshop and so on. In the "ideal plan for a monastery" dating back to the 9<sup>th</sup> century preserved in St. Gall, almost 40 buildings for specific functions are organized in a grid, with a strong emphasis on circulation.

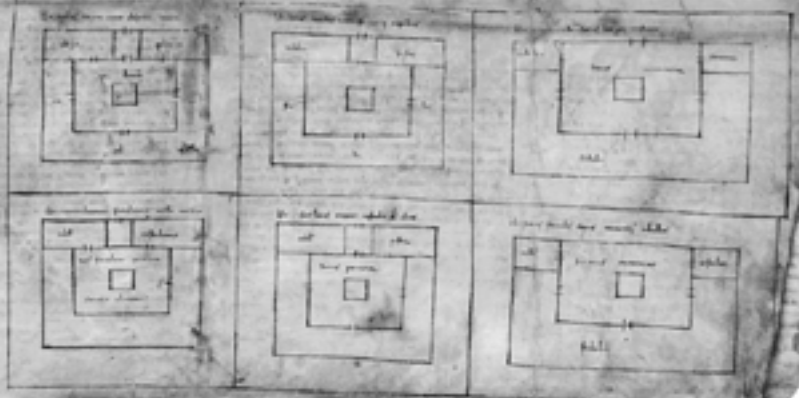
Next page: "Ideal plan for a monastery", architectural scheme drawn between 820 and 830 CE, preserved in the library of St. Gall in Switzerland. The plan describes a self-contained monastic community, housing nearly all human needs in an essential way that makes its content still relevant today.

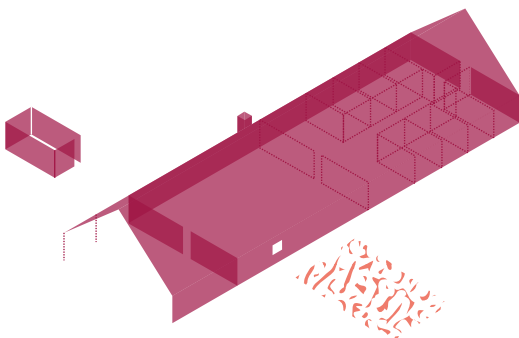
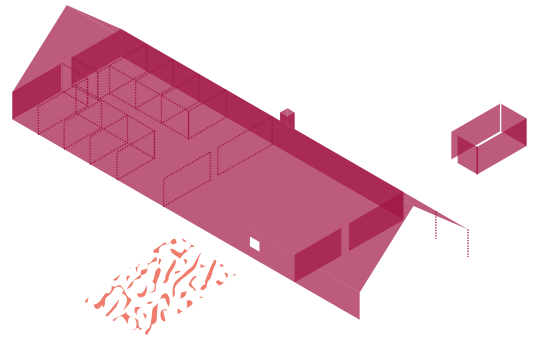
The 40 buildings within the complex are classifiable under six functional groups; healths and medicine, education, reception, church and dependencies, agriculture, and finally, crafts, milling and baking.

Image taken from Wikipedia.



1. The plan of the building is drawn to a scale of 1/4 inch to the foot.  
 2. The plan shows the building as it is at present, and not as it was at any other time.  
 3. The plan shows the building as it is at present, and not as it was at any other time.  
 4. The plan shows the building as it is at present, and not as it was at any other time.  
 5. The plan shows the building as it is at present, and not as it was at any other time.  
 6. The plan shows the building as it is at present, and not as it was at any other time.  
 7. The plan shows the building as it is at present, and not as it was at any other time.  
 8. The plan shows the building as it is at present, and not as it was at any other time.  
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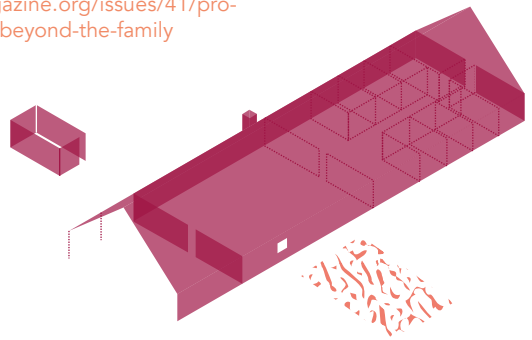




Apart from the monastery, the medieval house was a loose ensemble of rooms that lacked specific functions where domestic space and workplace was often situated in the same building.<sup>28</sup> The aggregation of peasant's houses isolated from each other by the land they cultivate isolated the families from one another, according to Marx, disabling the formation of public opinion.

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28. Pier V. Aureli & Martino Tattara, "Production/Reproduction: Housing beyond the Family", Harvard Design Magazine, no.41, Fall/Winter 2015.  
<http://www.harvarddesignmagazine.org/issues/41/production-reproduction-housing-beyond-the-family>



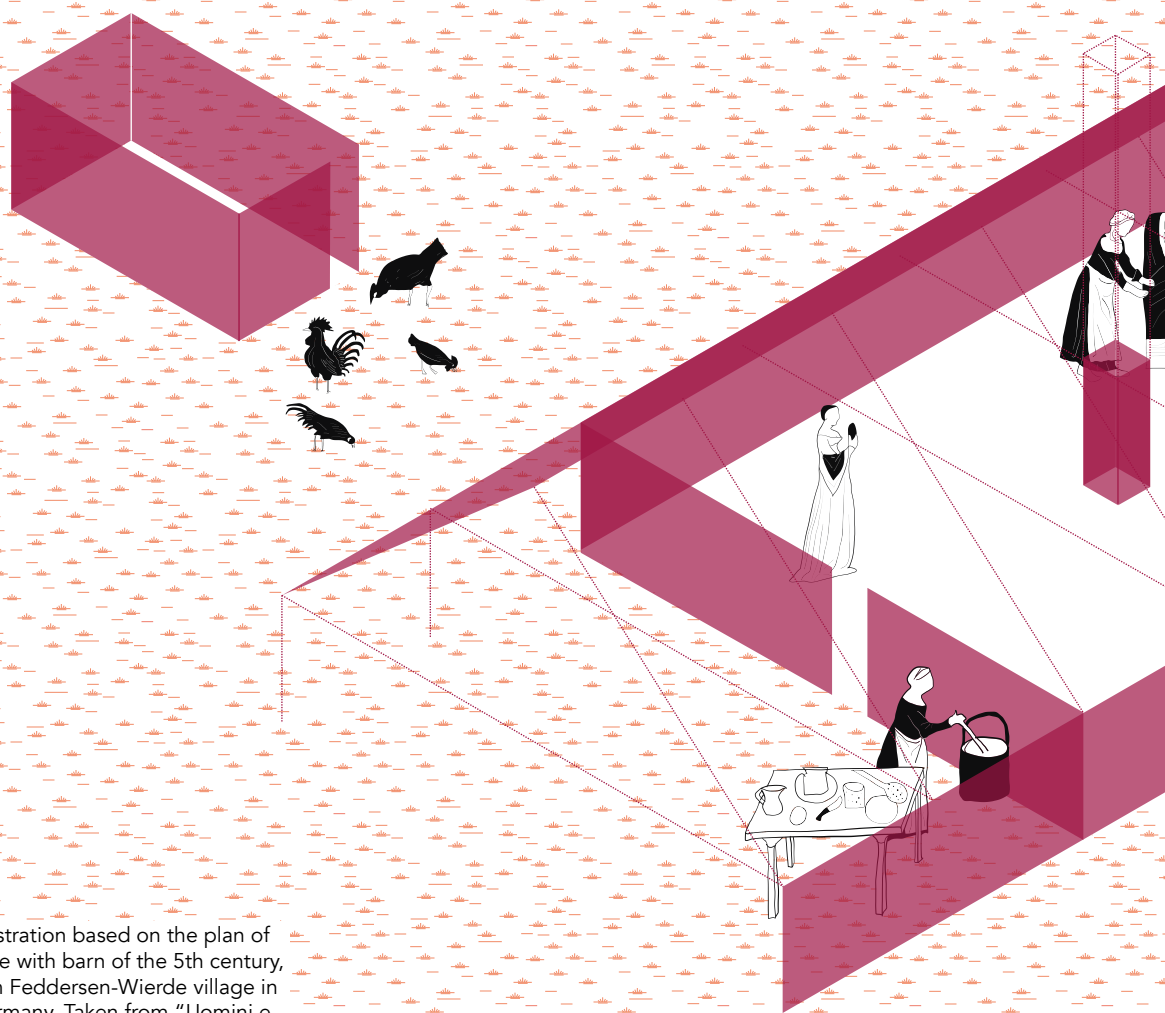
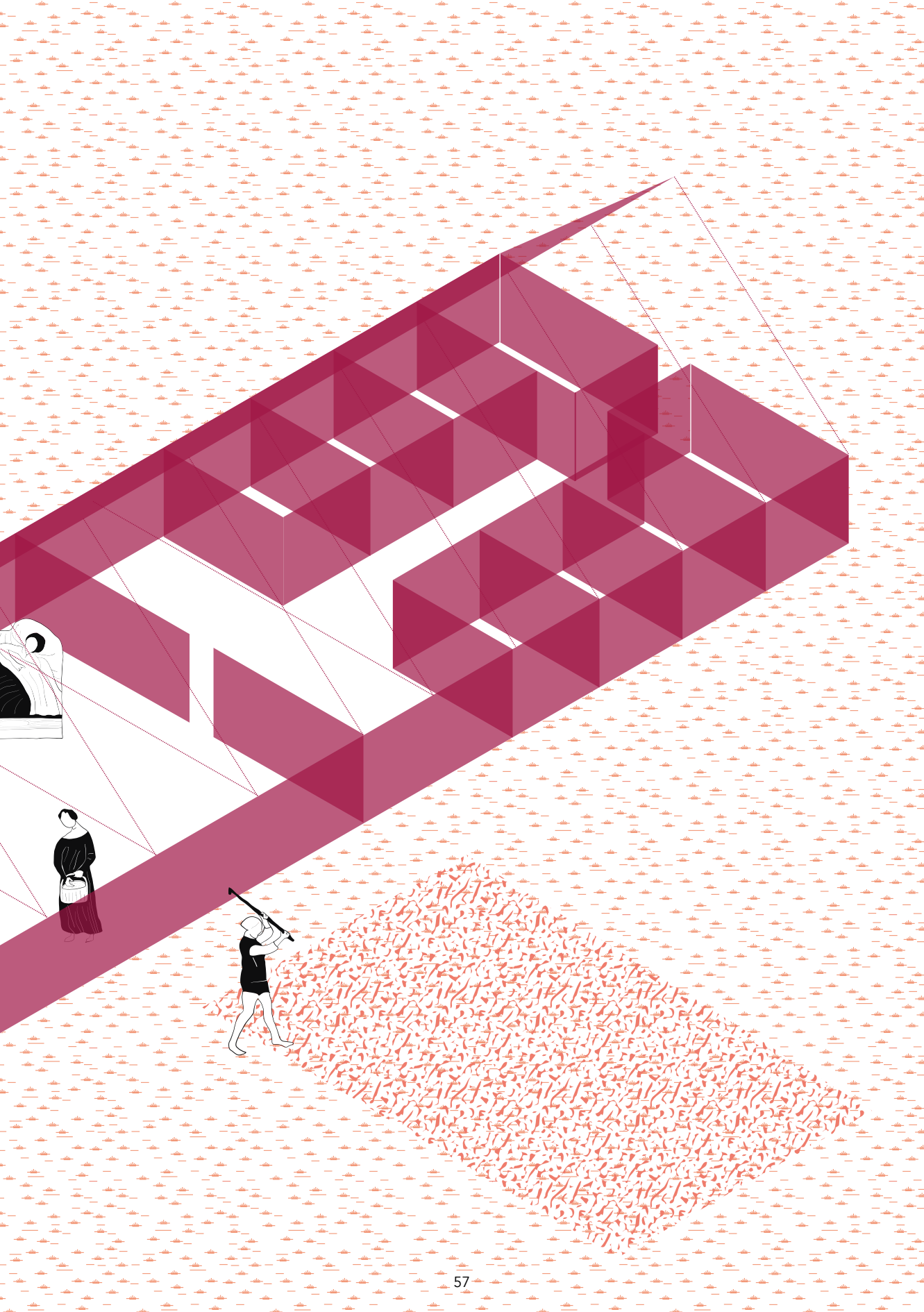
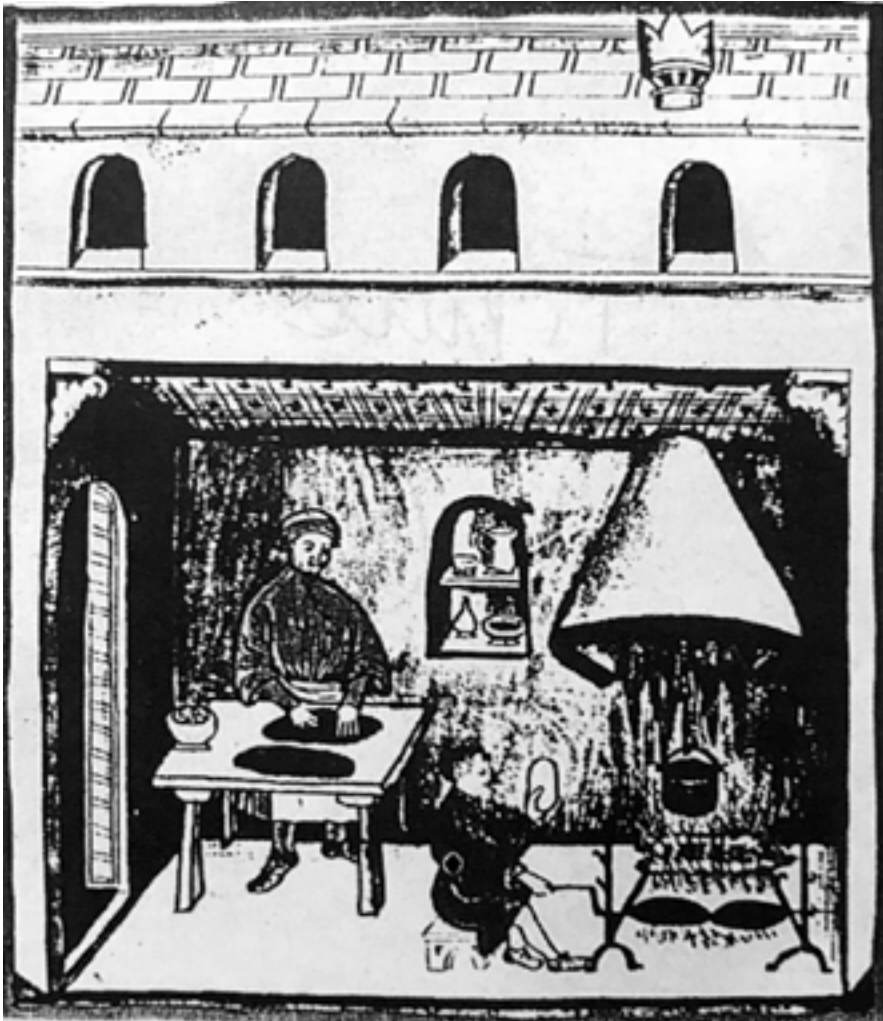


Illustration based on the plan of house with barn of the 5th century, from Feddersen-Wierde village in Germany. Taken from "Uomini e case nel Medio tra Occidente e Oriente" by Paola Galetti.

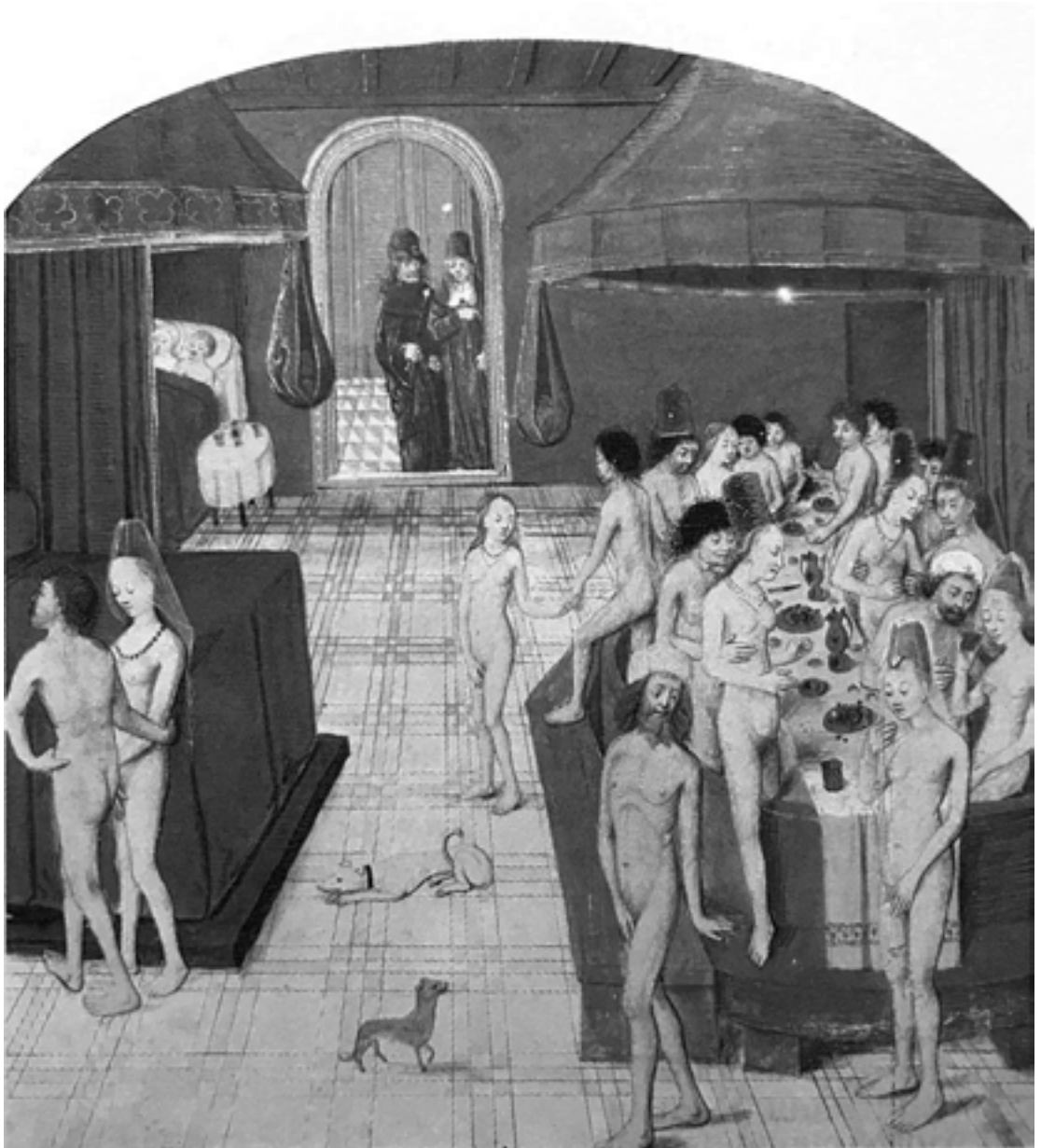


Interior of a dwelling (From Tacuinum citato).  
Taken from *Abitare nel Medioevo* by Paolo Galetti.





Peasant's house in wood, with a thatched roof (From Tacuinum Sanitatis).  
Taken from *Abitare nel Medioevo* by Paolo Galetti.



Maison de bains, Valère-Maxime, 1375.  
Image taken from *Architectures de la vie privée*.

Rituals that we consider highly intimate today were part of public life in the Middle Ages. Apart from lack of attention to hygiene, the widespread mentality accepted nudity and the mixing of activities like eating and bathing. This image is one of many testimonies of the mixity in the public baths.



Cabaret-étuve, Valère-Maxime, 1375.  
Image taken from *Architectures de la vie privée*.

# *RENAISSANCE*

*stronger hierarchy* in the society / differences *defined* clearly / *class differences* start to be accentuated / wider middle class appears / middle class composed of *workers* / *workers depend* on selling their labor / capable of *ownership* / *beginning* of a widespread *working class*

*desire to manage life* within the house arises / *architecture* takes up the challenge / *rooms* are defined by their *functions* / *inhabitants* are assigned *roles* / class differences are naturalized / *asymmetries* are *normalized* through architecture

*economy* becomes a tool for *larger territories* than the household / *economy* evolves into *political economy* / *political economy* is enforced by the *unpaid domestic labor*

housing is for *everyone* / architects design houses for *everyone* / *architecture* is no longer a luxury / *architects decide* the rules / house becomes a *self-identification tool* / self-identification is *managed by architects* / house represents its *owner* / *inhabitant* becomes *owner* / *home-ownership* is normalized / house becomes a *commodity*

Alberti's writings represent the shift in Renaissance towards a different view on how domestic space should be organized.<sup>29</sup> Becoming the subject of the architectural project for the first time, we see that life within the house starts to be more carefully managed and compartmentalized. Rooms are defined by their function and inhabitants take on roles that are enforced within the domestic space. The fact that Alberti describes in a detailed manner how the house should be organized is the sign of a bigger process where there is a strong desire to control the lives of people that inhabit them, especially the emerging middle class, since this desire to micromanage coincides with a change in the economic structure of Europe, from Feudal system toward wage labor. Marx defines this new economic organization as "primitive accumulation,"<sup>30</sup> in his book *Capital*. This system that is more clearly in motion with the Industrial Revolution, starts to be rooted in the social mentality even earlier. It starts to construct the necessary working class in Renaissance that, driven to urban centers away from the land where they have control over proper belongings, would be dispossessed of everything except for their labor power that can only be sold to institutions holding control of the production. This process consists of minimizing the common goods and privatizing resources on a macroscale. While within the smaller scale of the house, it formalizes power disparities, by putting women in a position of non-productivity. Silvia Federici defines this domestic situation as a "legal form of slavery" in her book *Caliban and the Witch: Women, the Body and the Primitive Accumulation*.<sup>31</sup>

29. Leon Battista Alberti, "On the Art of Building in Ten Books, trans. Joseph Rykwert, Neil Leach, and Robert Tavernor," Cambridge, Mass.: MIT Press 1 (1988): 149. quoted in Aureli and Giudici, "Familiar Horror", 115.

30. Which he describes as "the systematic construction of a class deprived of the control of their means of production through institutionalized theft and violence." in *Capital: A Critique of Political Economy*, vol. 1, trans. Ben Fowkes (New York: Penguin, 1990), 871–940. quoted in Aureli and Giudici, "Familiar Horror", 116.

31. Silvia Federici, "Caliban and the Witch: Women, the Body, and Primitive Accumulation," Brooklyn (NY): Autonomedia, 2004, quoted in Aureli and Giudici, "Familiar Horror", 116.



Illustration from Boccaccio's Decameron, "un dortoir à l'auberge." 15<sup>th</sup> century, image taken from "Tracce Silenziose dell'Abitare", originally from  
© Bibliothèque de l'Arsenal, ms 5070, folio 337.

Reinterpreted after its original place dedicated to the oikos, this is when economy starts to take on its role as we know it today, where its domain is extended to **political economy**, and it becomes a technique of administering a large territory, starting from the core private space; the house.<sup>32</sup> The house plays a crucial role in this organization with its intimacy that naturalizes the unpaid affective labor of women, which is an important economic asset for production on a bigger scale.

32. Pier V. Aureli, "The Dom-ino Problem: Questioning the Architecture of Domestic Space," *Log 30* (2014): 157.

*“In this context, architecture comes to play a crucial role, for economic asymmetry needs not only to be enforced and organized – for instance, by relegating women to kitchens and barring them from workshops – but also, and most importantly, naturalized.”*  
*Aureli and Giudici, in “Familiar Horror”*

Following the interest in reinforcing social differences, the house becomes a topic for architects who recognize the importance of their role. Domestic architecture has the role (and the power) to enforce, organize and most importantly **naturalize** the social and economic asymmetries that were starting to become clearer.

We can observe many of these changes in architectural practice and thinking toward domesticity in Sebastiano Serlio's sixth book that was never published. *Of Habitations Suitable for All Grades of Men*, of which the first manuscript was drafted by Serlio between 1541 and 1549, as an anthology of domestic building types, organized according to an idealized social hierarchy, from peasants and craftsmen to princes and kings.<sup>33</sup> Even though Serlio is not the first architect to classify private architecture based on social hierarchy, his approach differentiates itself by including buildings for the poor. Each one of the social classes he considers,<sup>34</sup> is further divided according to wealth and character such as “poor”, “middle”, and “wealthy” peasants; and “peaceful” and “factious” gentleman. These subcategories are represented in the buildings that are planned to be an assembly of several parts that can be added or separated in case of a change in the economic situation of the inhabitants (for example the “poor peasant house” is a basic nucleus to which it is possible to add a stable, a porch, an oven and a cellar).<sup>35</sup>

33. Mario Carpo, “The Architectural Principles of Temperate Classicism: Merchant Dwellings in Sebastiano Serlio's Sixth Book,” *RES: Anthropology and Aesthetics* 22, no. 1 (1992): 135. Title translated from the original title of the Munich manuscript (1551-1554): *Delle habitationi di tutti li gradi degli homini a) fuori delle città e b) dentro delle città (progetti)*.

34. Peasants, craftsmen, urban tradesman, gentlemen, princes and kings for the country living and craftsmen, merchants, gentlemen, high officials (magistrates, podestà, governors), princes and kings for the town. Carpo, “Merchant Dwellings in Sebastiano Serlio's Sixth Book”: 137-138.

35. Carpo, “Merchant Dwellings in Sebastiano Serlio's Sixth Book”: 138.

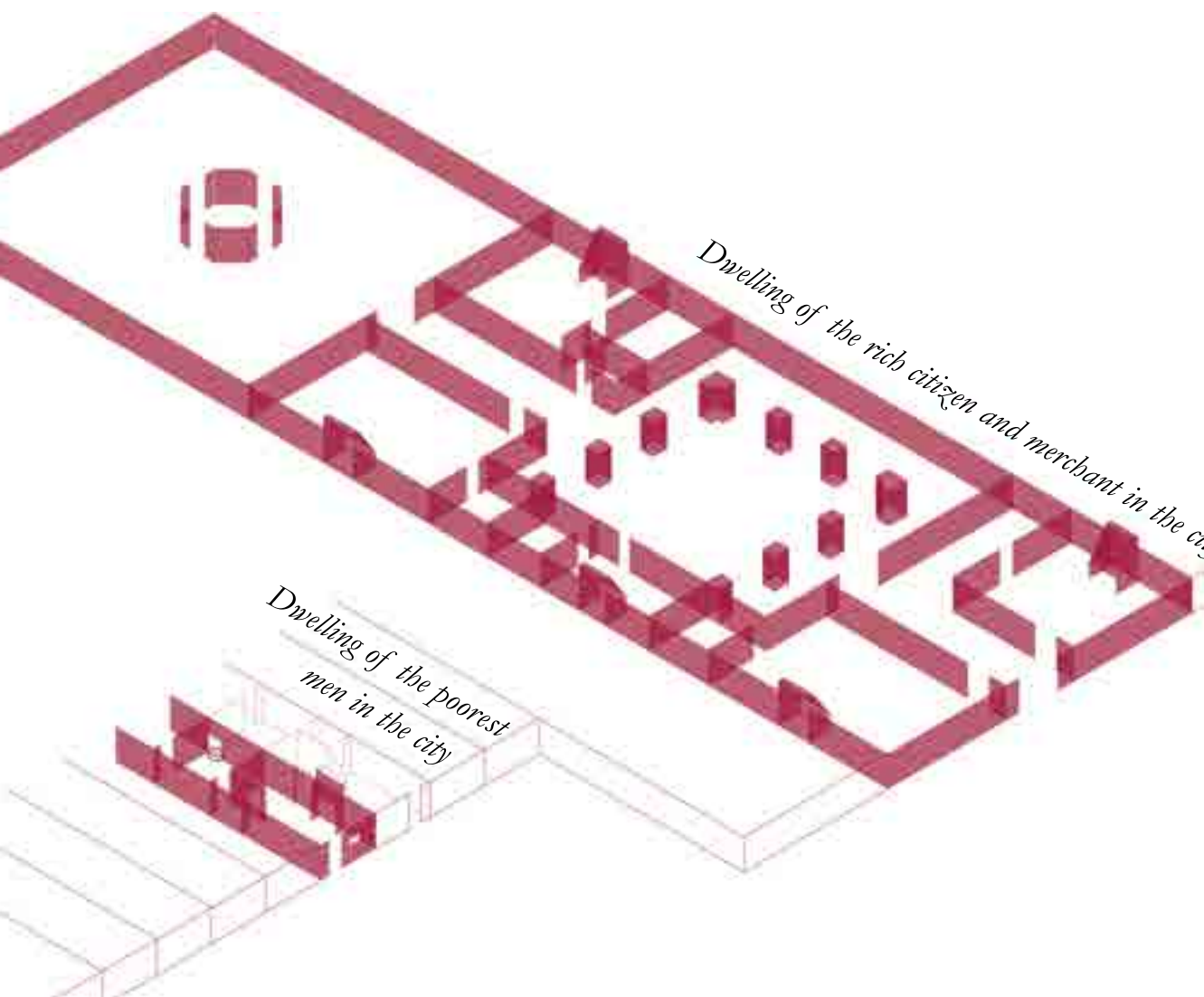
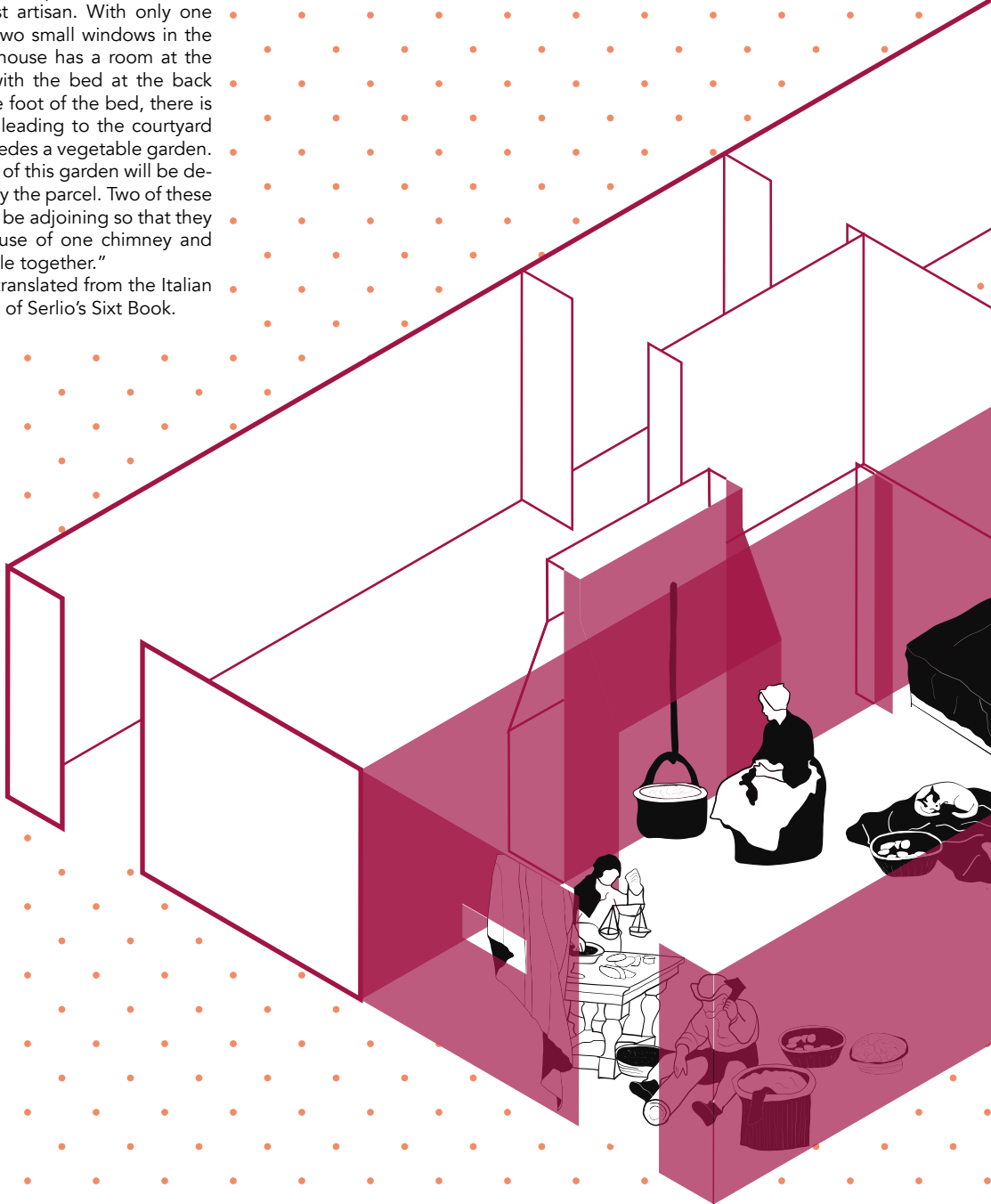
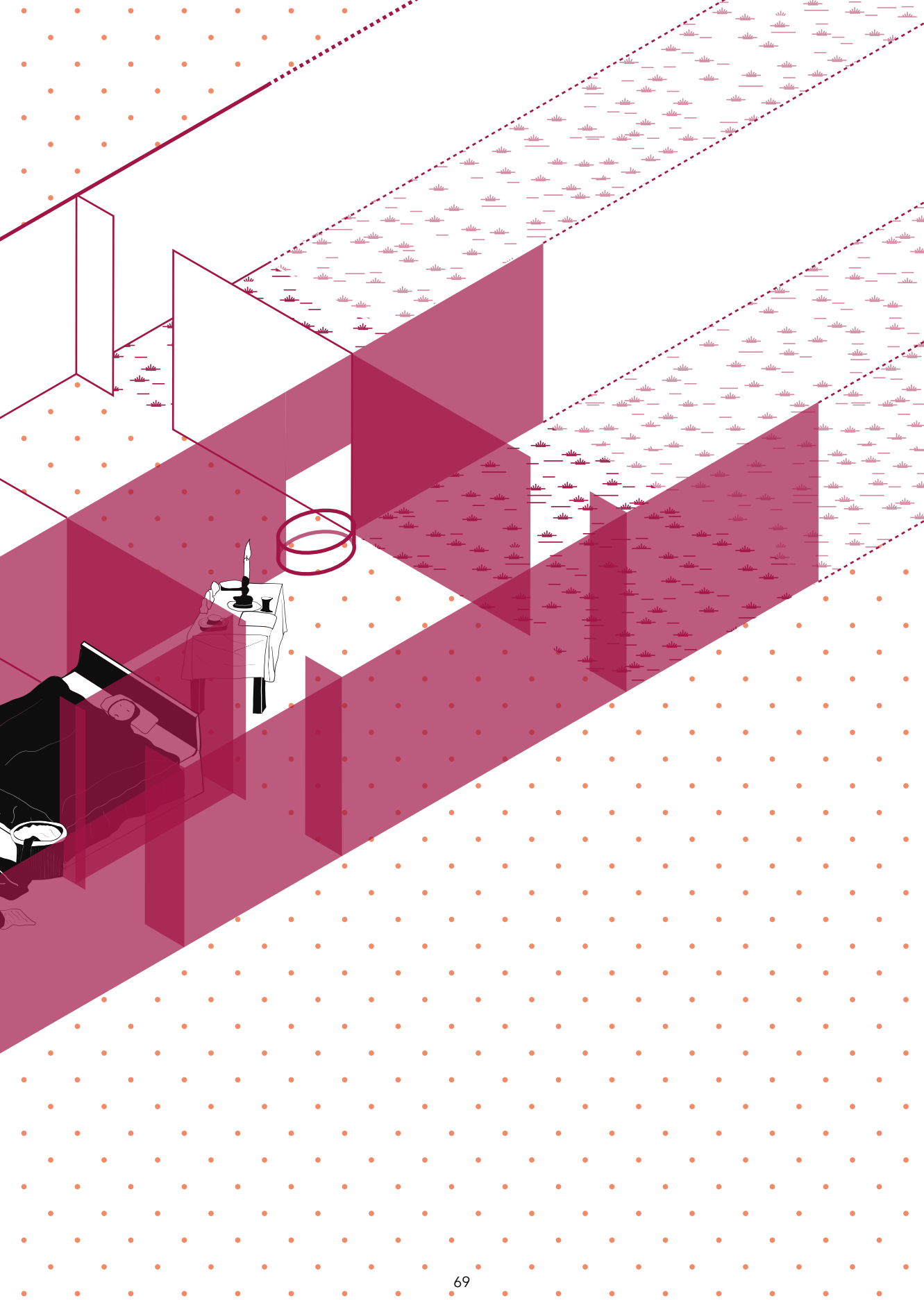


Illustration based on the plans from  
Serlio's Sixth Book.  
Social hierarchy clearly mirrored in  
the design of housing.

*"Dwellings of the poorest men in the city are usually far from city square or buildings attributed to nobles and close to the city gates. These people are the men who work with various forms of low art. I observed that in many cities, their houses are narrow and long. This is where I will start developing the model for the poorest artisan. With only one door and two small windows in the front, this house has a room at the entrance with the bed at the back of it. At the foot of the bed, there is a passage leading to the courtyard which precedes a vegetable garden. The length of this garden will be determined by the parcel. Two of these houses will be adjoining so that they can make use of one chimney and one wellhole together."*  
Plate 44v, translated from the Italian manuscript of Serlio's Sixt Book.





The contents of Serlio's sixth book imply some of the views that start to characterize the domestic architecture in Renaissance, and that are still effective today. First of all, the idea that architecture no longer represents a luxury but should be available for everybody. However, for Serlio, this discourse is based on the ideology that 'everybody' only includes the productive portion of the population (lowest ranking being the peasant). Another ideology hidden within this representation is **homeownership**. For these people from all classes to be able to express their identity through the composition of their dwellings, they have to own it. House has to become a **commodity**.<sup>36</sup>

We can also observe the separation of productive activity from the house, by the use of outside buildings that are devoted to craft workshops, animal husbandry and storage. This separation lies at the core of the twentieth-century description of home as a refuge from tiring and chaotic working life. It implicates the idealization of home as an intimate and cozy space to balance the city and its hectic life.

The organization of the remaining nucleus of the house is left rather loose at the beginning of the Renaissance. It follows the Roman example with a courtyard as the representational space and the symmetrical layout. In this period before the social separation and idea of retreat penetrated inside the house itself, the internal layout of the home remains what Robin Evans describes as an architecture of company - based on a principle that values proximity and company - in his article "Figures, Doors and Passageways". He efficiently observes that in domestic architecture prior to 1650, the way through the house is not differentiated from the rooms in it. Thus when passages and staircases are used, paths of the entire household - men, women, children, servants and visitors - would inevitably intersect.<sup>37</sup>

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36. Aureli and Giudici, "Familiar Horror", 117.

37. Evans, "Figures, Doors and Passages", 64-65.



"Hyacum et lues venera" by Ioannes Stradanus (1523 - 1605)  
Showing a convalescent man in the bedroom on the left, next to the kitchen where  
others are preparing medicine.  
Image by: © Trustees of the British Museum.

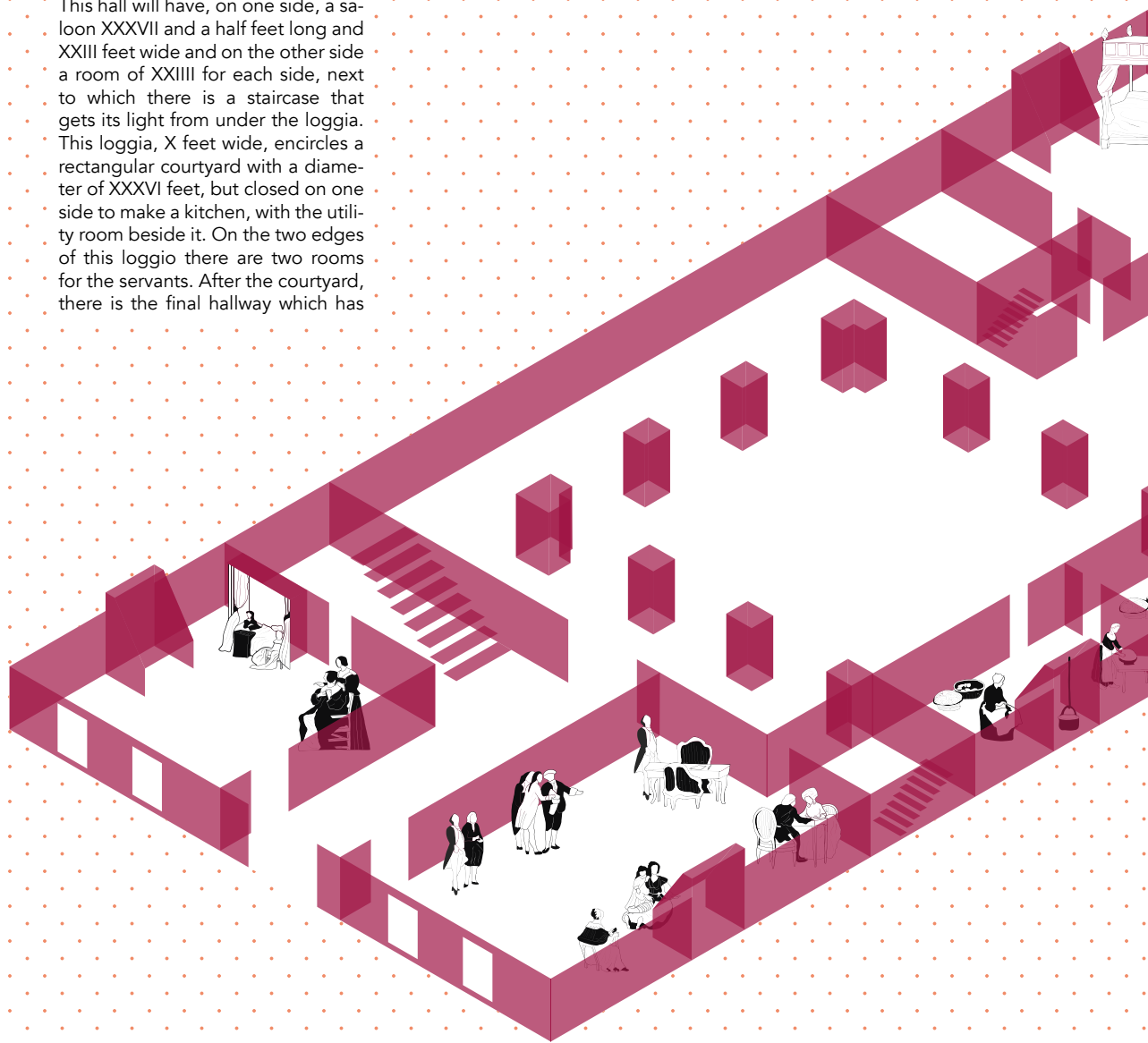
*"Dwelling of the rich citizen and merchant in the city:*

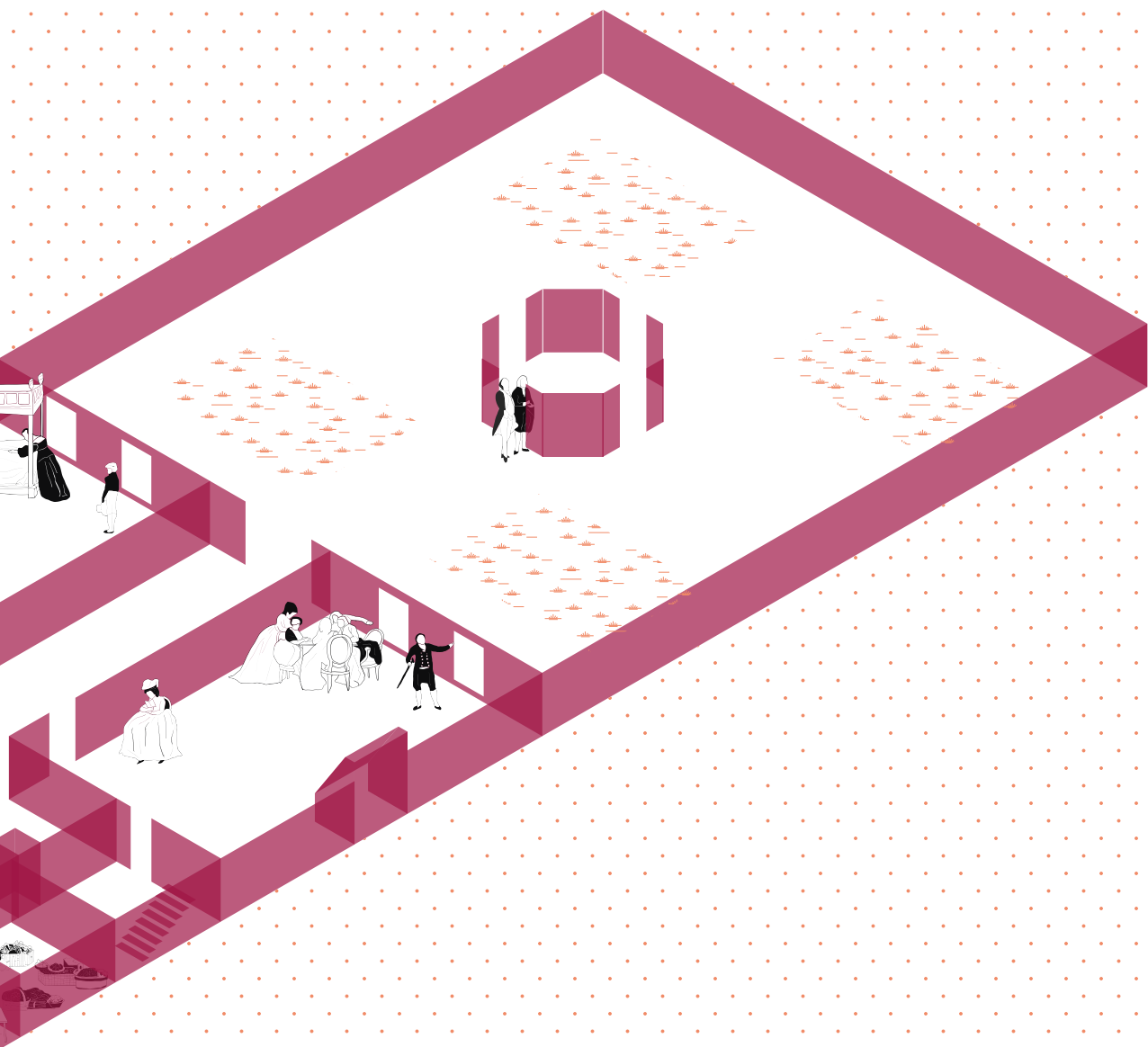
Even though I said I wanted to demonstrate the dwellings of men of all grades, I don't want to constrain myself to dedicate a house only to a merchant or a citizen or a rich gentleman.

Because a very rich citizen could have a modest soul and be happy living in an old house while a mediocre citizen might invest everything he has in his dwelling in order to live in a big and beautiful house. The entrance to this house will be through an entrance hall of xii feet wide with walls that are V feet thick. This hall will have, on one side, a saloon XXXVII and a half feet long and XXIII feet wide and on the other side a room of XXIII feet for each side, next to which there is a staircase that gets its light from under the loggia. This loggia, X feet wide, encircles a rectangular courtyard with a diameter of XXXVI feet, but closed on one side to make a kitchen, with the utility room beside it. On the two edges of this loggia there are two rooms for the servants. After the courtyard, there is the final hallway which has

one saloon on one side, of XXIII feet and XXXVI feet long and on the other side a room of XXIII feet each side, with a small room at its disposal. On the outside, there is a garden in the middle of which you can find an orthogonal pavilion to be safe from rain and sun and this is the house number I."

Plate 48v, translated from the Italian manuscript of Serlio's Sixt Book.









*Le cabinet du duc de Choiseul*, by Louis-Nicholas Blarenberghe, 1757. Image taken from *Architecture de la vie privée*.

This image demonstrates the domestic life at the beginning of the 18<sup>th</sup> century, still characterized by large groups, frequently including guests and the assembly of various activities in the same room. Even though the economic means of the family influences the composition of these rooms, the coexistence of activities and large groups of people remains a common character of daily life.

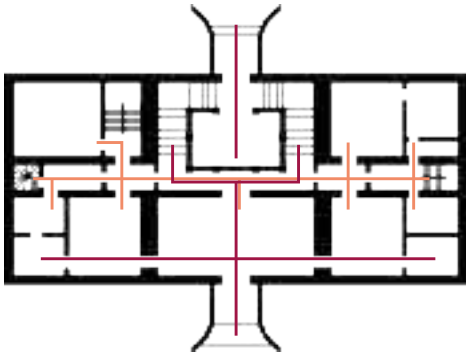
*“From these plans it can be seen how the introduction of the through-passage into a domestic architecture first inscribed a deeper division between the upper and lower ranks of society by maintaining direct sequential access for the privileged family circle while consigning servants to a limited territory always adjacent to, but never within the house proper; where they were always on hand, but never present unless required.”*

*Robin Evans, in “Figures, Doors and Passages”*

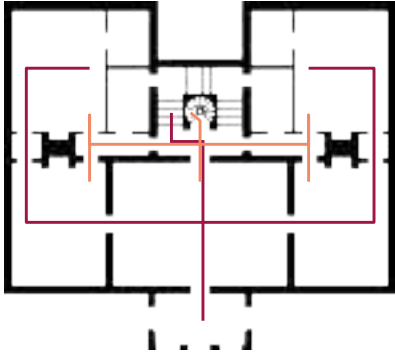
Starting from 1650, through the reinterpretation of the Italian Villa in England, the distribution system within the house starts to evolve toward the widespread system of corridors in today's conception. During this transition period, the corridor is integrated into the plan of villas as an alternative to interconnected rooms. This main goal of the passageway is to separate the servants from the rest of the household. This separation is further accentuated by introducing back stairs for servants and a grand staircase for the gentlemen and ladies. The entrance hall and the grand staircase increasingly continue gaining importance to our day, even though the life itself is lived beyond their walls.

The number of entrances to each room start to decrease to a number that primarily aims to allow a visual continuation, while the door connecting each room to the passageway or to the hall gains clear importance.

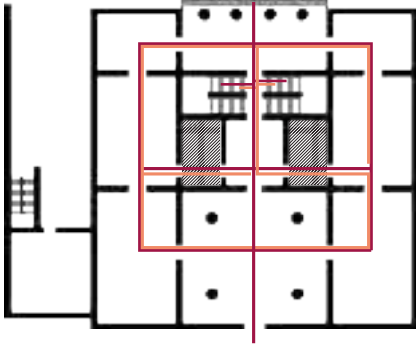
This approach toward undesired company of people that belong to lower social classes slowly grows larger into a distaste of company in general, a distaste for intimacy and physicality in domestic life. This phenomenon leads to further isolation of individuals of the household in the industrialized society, where it becomes increasingly more difficult to enter a room where one has no specific business. In time, the circulation of all members of the household becomes restricted to passages.



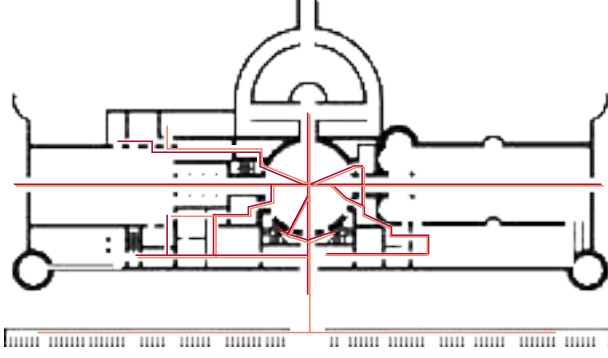
Coleshill,  
1650-67  
in Berkshire, by Sir Roger Pratt



Amesbury House,  
1661,  
in Wiltshire, by John Webb



Palazzo Antonini,  
1556  
in Udine, by Andrea Palladio



Villa Madama,  
1518, in Rome,  
by Raphael and Antonio da Sangallo

*servants*

*privileged family*

## *INDUSTRIALIZATION*

*working class* emerges / a class *deprived* of land and *control* / a class left only with *labor power* to sell / *institutions* control the production / workers without power / *power disparities* in production system / workers controlled *by institutions* / balanced by *power disparities* in the house / women controlled *by men* / women made '*non-productive*' / women limited to *unpaid domestic labor* / Marx names this phenomenon '*primitive accumulation*'

house is where primitive accumulation *starts* / *life* within the house is *micromanaged* / *architects* have *deciding power* / architects' power is already *the norm* / *illusion of control* for the owner / *architecture shapes* the family / *architecture shapes* the *interactions*

workers' well-being is a tool for *efficient production* / house is *a tool* in workers' well-being / house needs to *function* / house becomes *housing* / house becomes *infrastructure*

“Housing is not simply residential architecture; it is the act of providing living space for the labor force at large.”

Aureli and Giudici, in “Familiar Horror”

Il Risveglio delle Operaie, by Niklas Lafrensen, 18<sup>th</sup> century.  
Image taken from *Il Progetto Domestico* by Georges Teyssot.



1700-1850

## *Transition to modernity*

*“The campaign-like idealization of the single-family home and its occupants – the nuclear family – as the only appropriate form of habitation and living for man began only with the social differentiation accompanying the emergence of the middle class.”*

*Niklas Maak, Living Complex*

As observed by many architectural theorists, the prevailing of the single-family living over other living organizations coincides with the creation of a largely populated middle class. Taken on by Renaissance architects several centuries ago, domestic architecture has by then obtained its role (and the power) to enforce, organize and most importantly naturalize the social and economic asymmetries that are more clearly visible with industrialization. This is where the house becomes housing, focused on the functioning of the house due to governmental concern on the worker's well being, as a fundamental requirement for efficient production. The requirement to provide living space for a large portion of the population was met thanks to the typological thinking.



Right: L'heureuse famille, by Sigimund Freudeberg, 1770.  
Scene from a peasant's house where a single room serves as a living room, dining room and kitchen.  
Image taken from "Architectures de la vie privée" p.172.



*“Why the innovation of independent access should have come about at all is not yet clear. Certainly it indicated a change of mood concerning the desirability of exposure to company [...]. Its sudden and purposeful application to domestic planning shows that it did not turn up at the end of a long, predictable evolutionary development of vernacular forms, as is often alleged [...]. It came apparently out of the blue.”*

*Robin Evans, in “Figures, Doors and Passages”*

In parallel, the structure of family was evolving toward that of the nuclear family. Around 1750, the nature of marriage started to change. Conjugal relationships were based on the joining of two families and a question of social status, especially among wealthier families. The most important responsibility of the couple was to represent their house and status, while affection was not an obligatory component of this arrangement. It is only after the second half of the 18<sup>th</sup> century that love and loyalty became a significant element in conjugal relationships. This shift in mentality brought with itself new living spaces that are aimed to host the family conviviality such as the dining room or the living room, placing the house in the center of family life. As the social separation between members of the household became stronger, it became important to separate the sleeping places of adults’ from children’s, and masters’ from servants’.<sup>38</sup> Consequently, leading to the creation of the nuclear family concept.

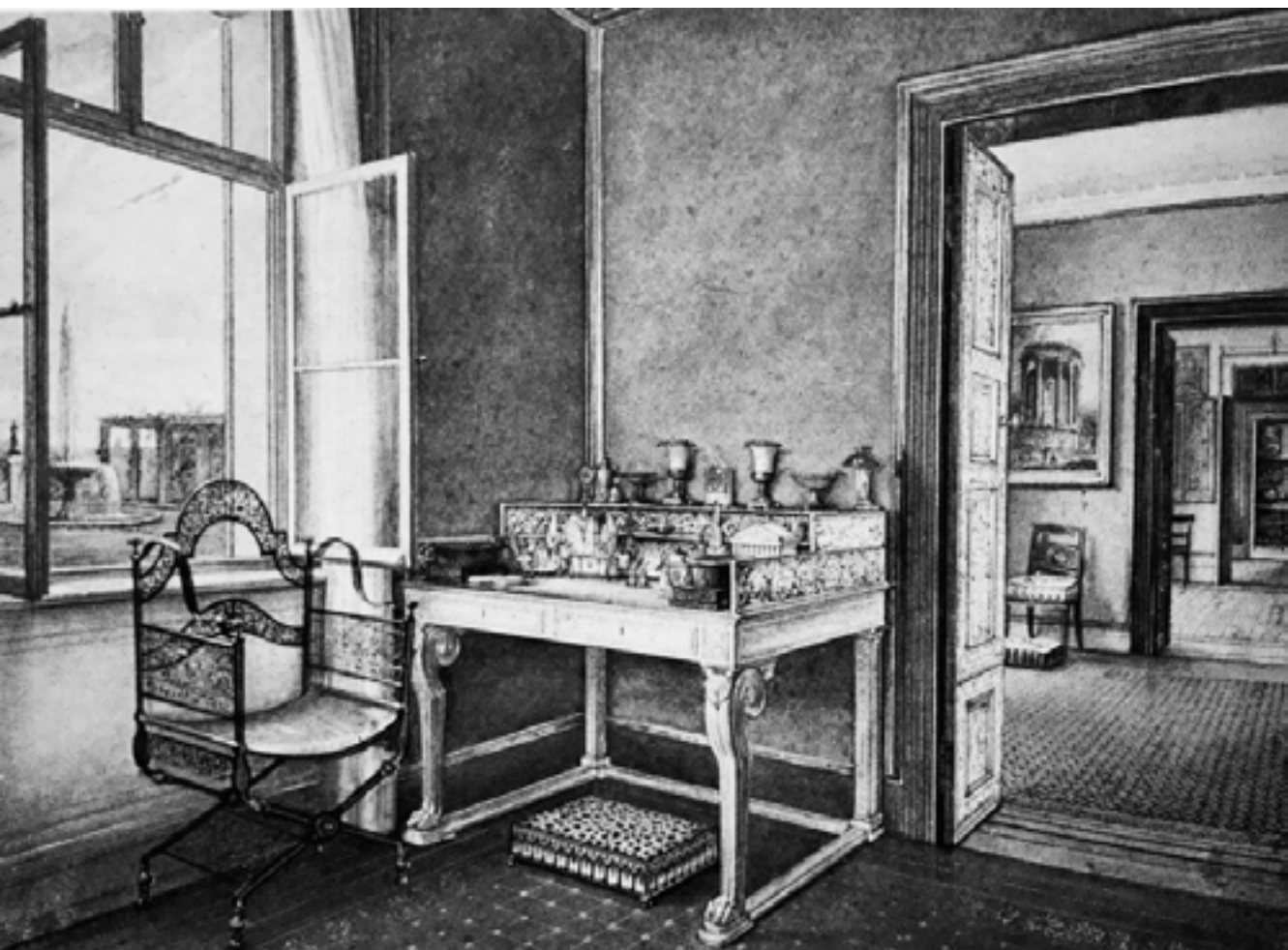
Edward Schorter explains that these organizational changes within the house can only be explained by the new types of relationships between the members of the family that come out, creating the nuclear family. He argues that the concept of *la vie de famille* (family life) is what represents the nuclear family, that is characterized by a lesser connection with its surrounding community compared to previous family formations, and desire instead, a strong solidarity and connection between the family members and the advantages as well as the protection of the life within the house.<sup>39</sup>

The stronger intimacy within the family, which Schorter argues is more easily found in cities, is the basis of several concepts that are today indisputably attached to the house, such as the desire for comfort and intimacy and the major role given to children in it.

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38. Aureli and Giudici, “Familiar Horror”, 121.

39. Eleb-Vidal and Debarre-Blanchard, “Architecture de la Vie Privée”, (Bruxelles: Archives d’Architecture Moderne, 1989), P.224-233.



Previous page: Anonymous, 'Scrittoio della principessa', in *Charlottenhof* di  
Karl Friedrich Schinkel, c.1833-1834

Image taken from *Il Progetto Domestico* by Georges Teyssot.  
Interconnected rooms still exist for themembers of the family.

As the industrialized social structures were shaped in the 18th century, the parti method previously used by architects to create internal divisions inside the houses became insufficient. Coming from the French word re-partir, with the parti method, architects subdivided the lot into pieces and were capable of obtaining complex arrangements with clear spatial hierarchy. However, this method did not allow them to assign specific functions and typologies to rooms. When the necessity for a more thorough micromanagement within the house became crucial, this method was no longer sufficient. Thus, a new strategy based on **composition** was introduced. This method composes a whole, through an additive process of individual parts. Starting from parts with defined functions, value, size and shape, it seeks to achieve a balanced formal ensemble. An invention that was diffused with this methodology was the **corridor**. Already in the 17th century in England, the presence of other people crossing through rooms starts to be viewed as a nuisance. Thus a particular distribution element was introduced; a long corridor that runs through the entire house to which staircases and entrances of rooms connect. The sole goal of this element is to distribute rooms and guaranty independent access to each one, without having to pass through others. This coincides with the limiting of the number of doors that open to a room. Every room becomes an endpoint with an assigned function, and it becomes difficult to enter a room where one has no specific business. As a result, the house was divided into two domains; "an inner sanctuary of inhabited, sometimes disconnected rooms and unoccupied circulation space."<sup>40</sup>

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40. Evans, "Figures, Doors and Passages", 71.



Painting by Moritz Hoffmann 'Study of Wilhelm Grimm in Linkstrasse', 1860.  
From the collection of Germanisches Nationalmuseum.

Image taken from *Il Progetto Domestico* by Georges Teyssot.

With the idea of privacy, the extra doors that were once used to connect rooms are now closed permanently and rooms acquire specific functions.

1851

## *Models for living*

*“A small home and a yard turns the worker into someone who can truly be called the head of a family, a moral and prudent leader with a sense of his roots and wielding authority over his wife and children [...] His house ‘owns’ him. It teaches him morality, settles him down and transforms him.”*

*Émile Cheysson, “Report on the Workers’ Settlement Passy-Auteuil” (August 27, 1881) quoted by Maak, in “Post-Familial Communes in Germany”.*

With the rapid spread of previously mentioned ideologies, the organizational tendencies within the domestic space were radicalized as well. The well-being of citizens becomes the major concern, in order to avoid social unrest and housing becomes the focal point in this approach.

Promoted continuously as the worker’s personal haven to escape from the problems of city life and production, the house becomes a crucial tool in convincing people that they have control over their living conditions. In order to keep this system functional, domestic labor is essential and usually assigned to women, the enclosure of whom also contributes to the illusion of power of the worker.



Right; Labour union demonstrators held at bay by soldiers during the 1912 Lawrence textile strike in Lawrence, Massachusetts

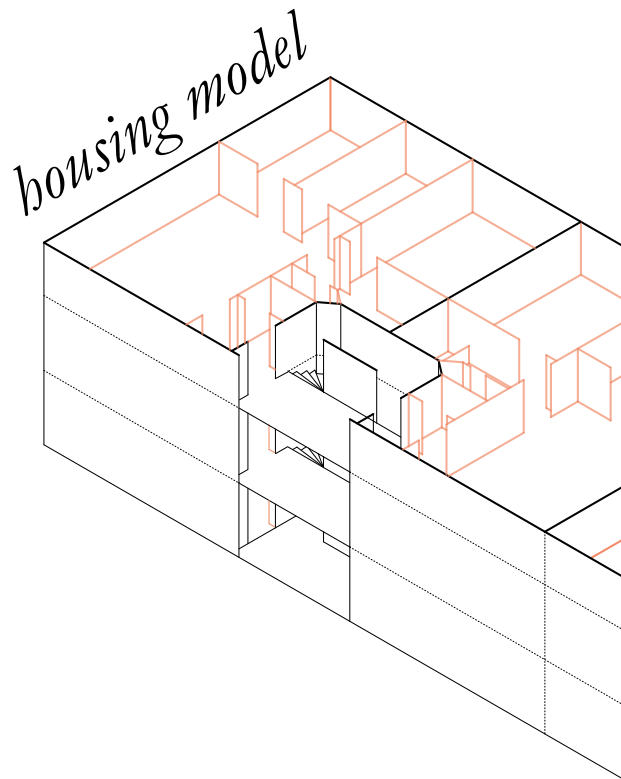


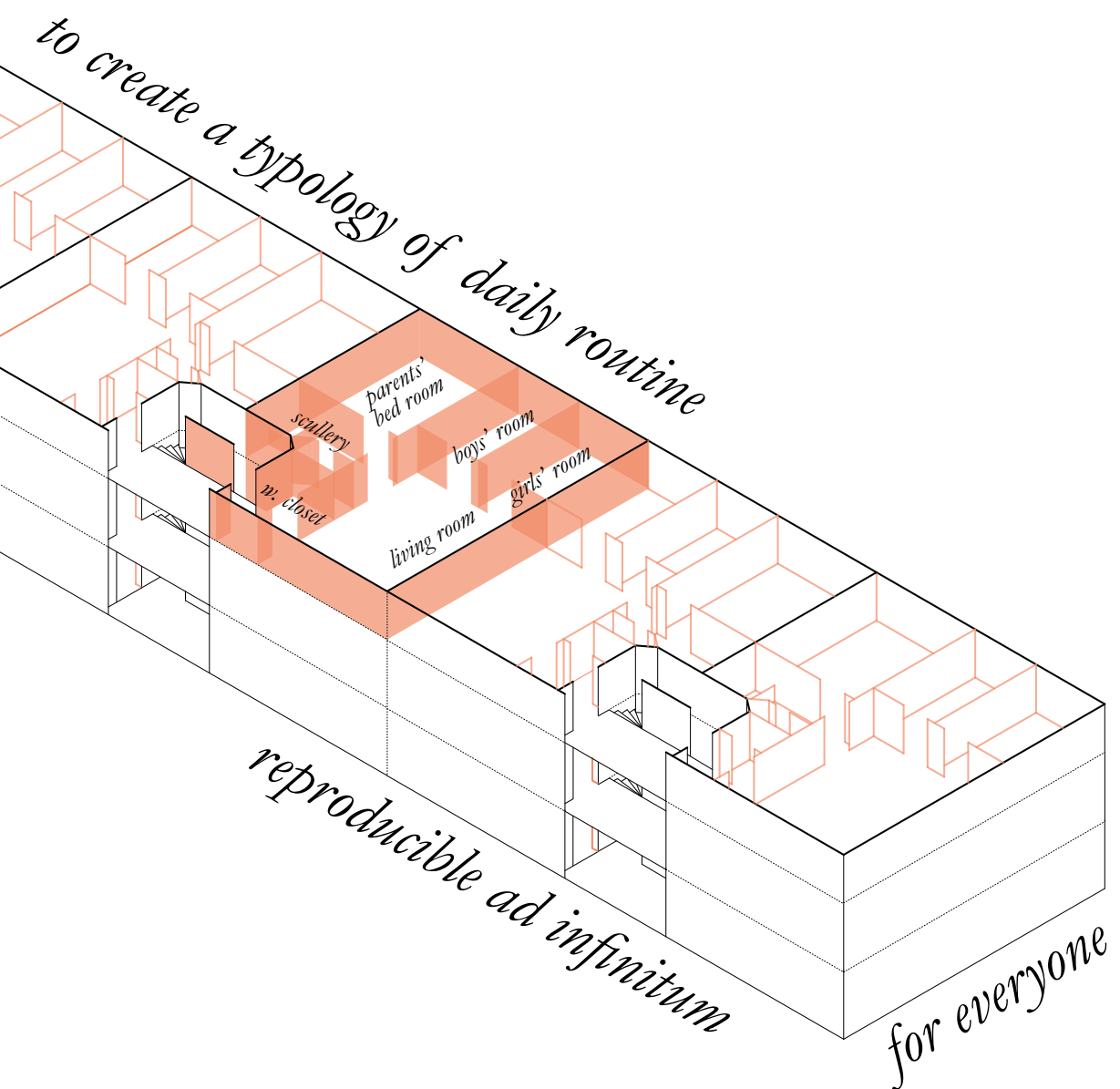
For the London's Great Exhibition in 1851, Henry Roberts prepared a *model* for apartment living; *Model Houses for Families*. This model, composed of an aggregation of function specific rooms – living room, master bedroom, smaller bedrooms, kitchen and so on - with different shapes, size and equipment, is a sophisticated ensemble of strategies that developed until then, and are still applied today.

As type usually aims to construct a commonality, this typology of housing constructs the daily routine as a commonality - with eating, working and sleeping patterns common to all members of society - also *reproducible ad infinitum*<sup>41</sup>.

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41. Aureli and Giudici, "Familiar





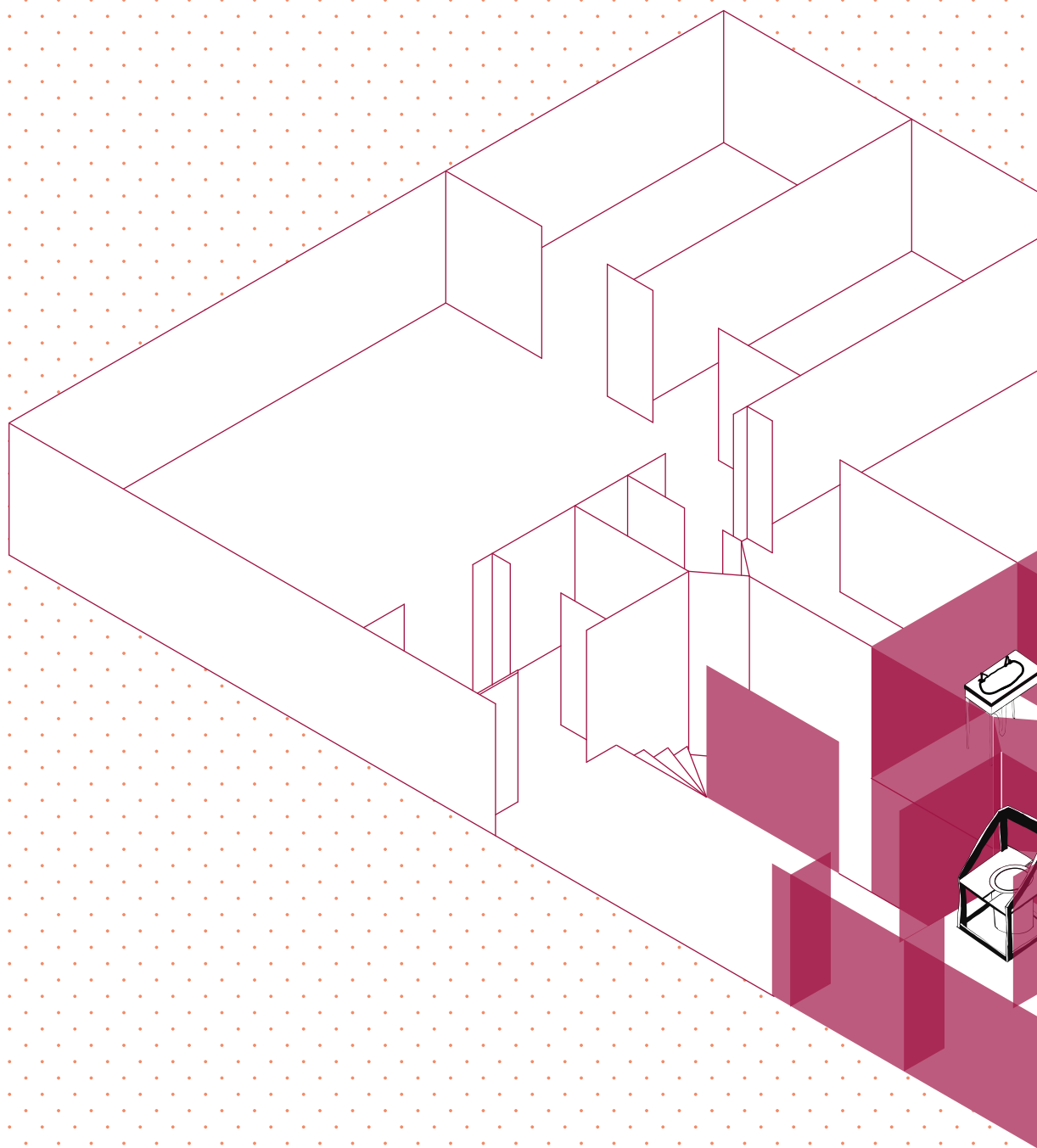




Illustration based on the "Plan of a Double House, with Four Distinct Tenements on Two Floors" in *The Dwellings of Labouring Classes, Their Arrangement and Construction*, by Henry Roberts.

*“The corridors and passages of a house, [...], are the Skeleton of its Plan ; because the relations of the rooms to each other are in fact the relation of their doors.”*

Robert Kerr, *The*

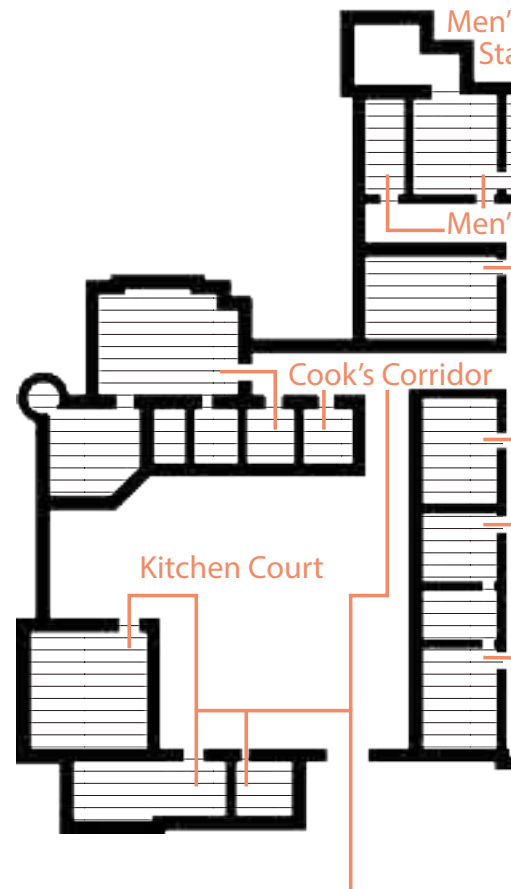
In 1864, Robert Kerr published his book called *The Gentleman's House* in order to promote some of the recent organizational strategies that were to become the ground rule for the modernist living. His suggestions may be interpreted as formal interpretations of the house as an aggregation of function specific forms in order to achieve greater individuality and hierarchy. He strongly argues in favor of the terminal room with only one door, opening to the corridor.<sup>42</sup> Another main argument in his writing is the separation of rooms based on functions. This separation goes as far as suggesting an independent children's room that includes stairs, corridor and a rear exit. He argues that the positioning of the nursery is one of the most important decisions since the wellbeing of the household requires children to be separated from adults and guests.<sup>43</sup>

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Horror”, 125.

42. Evans, “Figures, Doors and Passages”, 63.

43. Alessandra Ponte, “Lo Spazio della Nursery”, in *Il Progetto domestico: la casa dell'uomo: archetipi e prototipi*, ed. Georges Teyssot (Elec-





Bearwood,

1864

by Robert Kerr,  
thoroughfare plan illustration,  
in 'The Gentleman's House'.

As part of a wider research on how to naturalize the unfair power relationships and to support the political economy that necessities the unpaid labor within the household, was published also *The American Woman's Home*, a book by Catherine Beecher and Harriet Beecher Stowe. Published in 1869, this study contains architectural proposals that could increase the efficiency of household management. The idea of concentrating the infrastructural service spaces in a core at the center of the house aims to neutralize the remaining space, reducing it to a "structure that frames empty space."<sup>44</sup>

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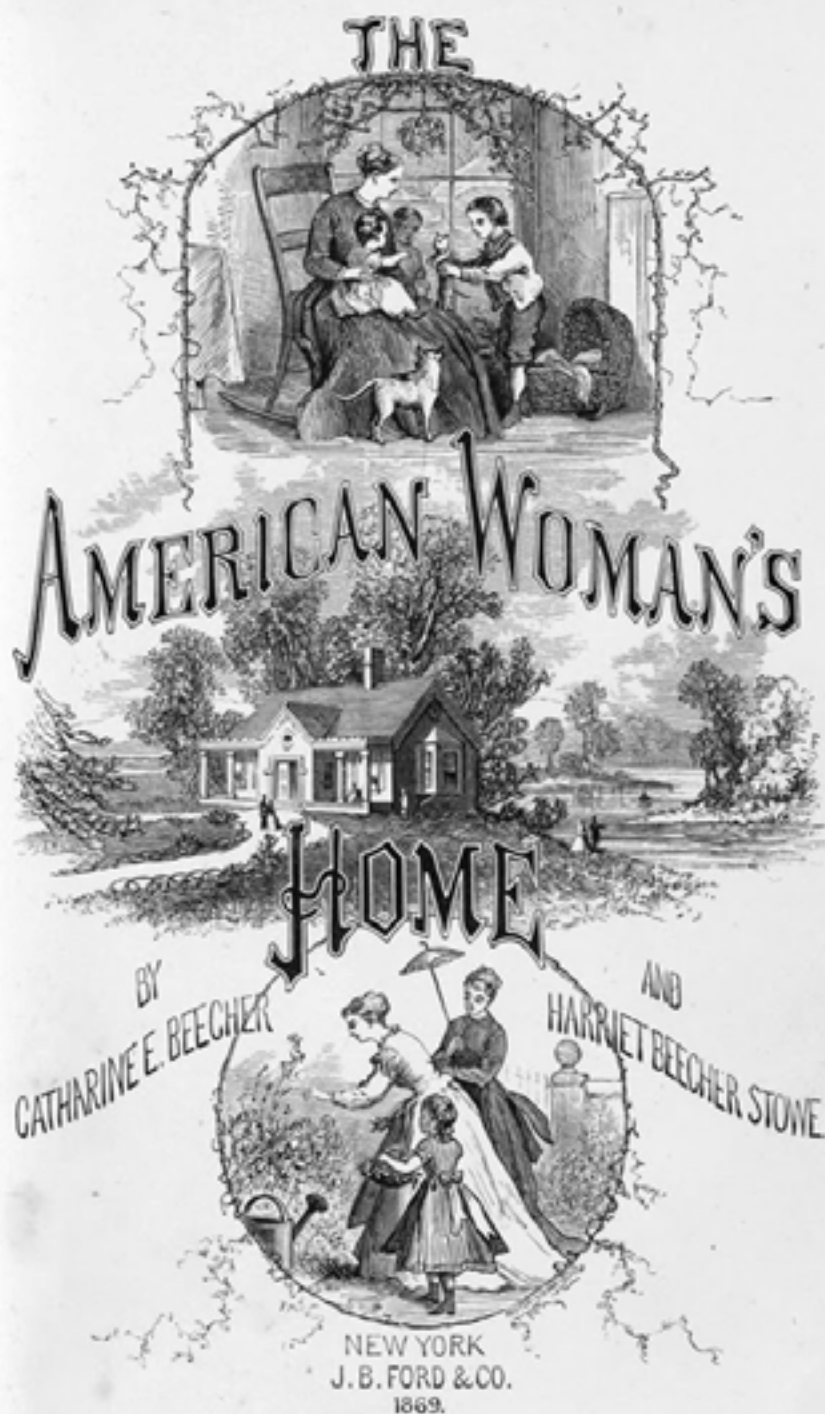
ta, 1986), 146

44. Aureli, "The Dom-ino Problem", 160.

Next page: Interior cover of *The American Woman's Home*.

Taken from

<http://librarianwithsecrets.blogspot.com/2014/01/read-in-20132014-1-american-womans-home.html>



*20<sup>th</sup> CENTURY*

“By partitioning space in clearly defined compounds, the plan directs movements and consolidates habits. In its apparent functional language of spaces such as bedroom, living room, corridor, and kitchen, the plan establishes gender roles, defines hierarchies, enacts the control of inhabitants, and consolidates the mastery of the house owner, or dominus”

Pier Vittorio Aureli,  
in “The dom-ino problem”

With the 20th century, economic nature of capitalism shifts from small businesses to mass production systems where a class of executives - always smaller in numbers - holds the management of production executed by a continuously growing class of salaried workers.

The architecture of factory, maximized with the "daylight factory" of Kahn for Ford Industries, becomes a key actor in this system. In the architectural method of **open floor** that is used here, made possible by the building technique of reinforced concrete, the impact of vertical support in the plan and façade is minimized, creating **flexible** and well-lit interiors. The horizontal slab becomes the main architectural element, where the open floor would accommodate all actors of the production process (men, machinery and product), with the possibility to be extended as needed.<sup>45</sup> Marullo argues that within the plan of the factory that evolved according to workers' frustrations and protests (that he argues were devoid of ideology and simply consisted of asking for more, wages or commodities) we can read how the industrial city worked. He argues that this type of production reduces "living labor down to an abstract and generic entity, uniform in quality and only different in quantity" and this view is evident within the open floor plan of the factory. This plan enabled employees to guide modest changes inside their workplace, creating an illusion of control.<sup>46</sup>

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45. Aureli, "The Dom-ino Problem", 162.

46. Francesco Marullo, "Architecture and Revolution. The Typical Plan as Index of Generic," in *The City as a Project*, ed. Pier Vittorio Aureli (Berlin: Ruby Press, 2014), 218.

This logic of free plan is then extended to other spaces of human life, and eventually, to housing and Dom-ino model of Corbusier can be considered as the emblem of this process. Using reinforced concrete, domestic architecture becomes framework (structural skeleton, made of horizontal slabs and pilotis, where façade and internal infill are left for the user to complete, based on the function). Its modular structure allows Dom-ino to be reproduced to cover and organize entire cities and while doing so put together two types of production methods, which eliminated the possibility of social unrest. This model had the capacity to include both do-it-yourself methods in the organization of the apartment and top-down processes of urban planning and industrial mass production for the raw material.

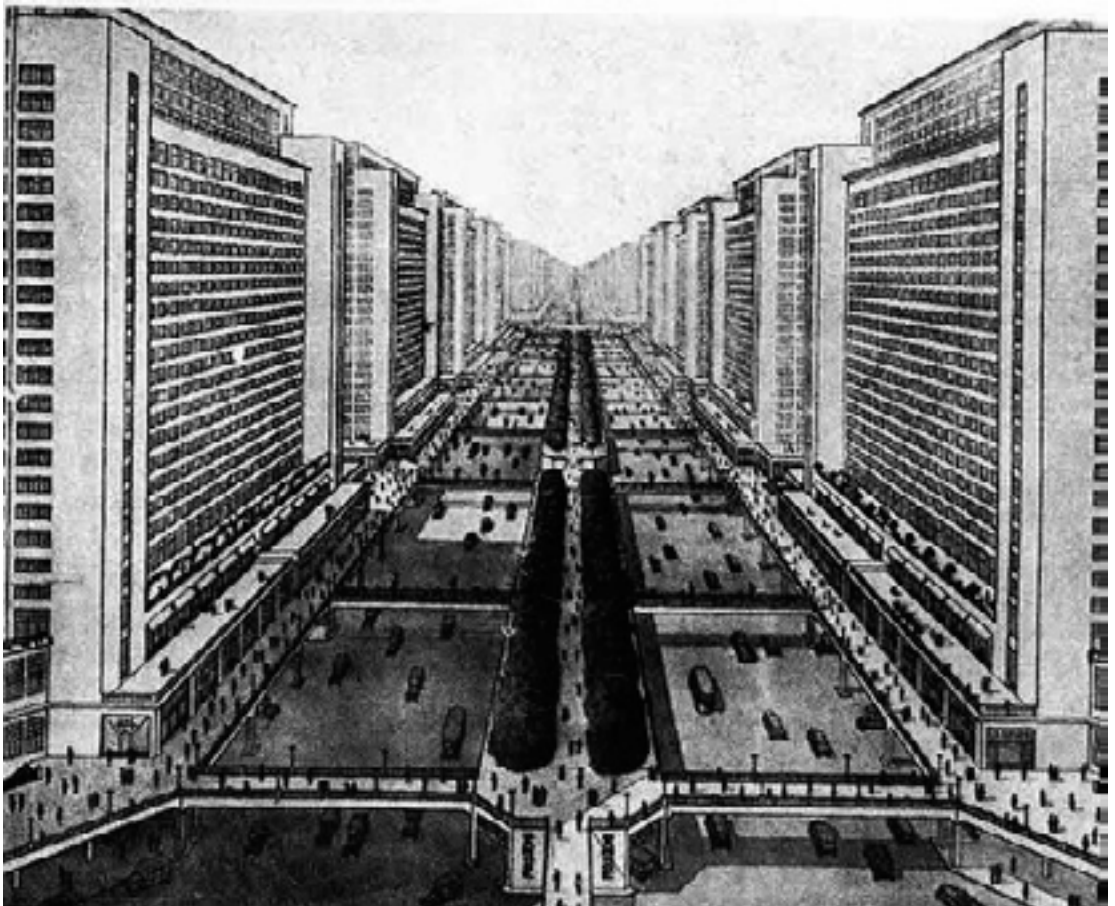
However, what follows the dom-ino model after 1930s as diffused housing techniques differ from Le Corbusier's models in one crucial aspect; as an empty frame, the liberty of interpretation of the nuclear family and domestic economy that this model allowed, was unacceptable for modern housing goals. As we have seen before in several examples, the architectural plan was increasingly compartmentalizing for various political reasons. Nonetheless, modern architecture has deduced some of its fundamental spatial properties from dom-ino; **flexibility** and **adaptability**.<sup>47</sup>

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47. Aureli, "The Dom-ino Problem", 165.



This page: View of Ville Radieuse by LeCorbusier. Taken from  
<https://www.archdaily.com/411878/ad-classics-ville-radieuse-le-corbusier>  
Previous page: Ebenezer Howard's vision for a 'Group of Slumless, Smokeless  
Cities'. Taken from  
<https://it.wikipedia.org/wiki/File:Ebenezer.jpg>



*'Horror'*

Next page: Cover of the magazine  
*Homemaker*. May 1963.  
Taken from <https://www.tilleysvintagemagazinesheffield.com/product/homemaker-uk-d-i-y-magazine-may-1963/>

MAY 1963

MONTHLY 1/6

# Homemaker

**THIS LUXURY  
£450 BEDROOM  
FOR ONLY £120**



**CURTAIN MAKING**  
a craftswoman  
reveals those  
trade secrets

**TERRACE MAKING**  
full work plans  
and costs of a  
lovely terrace

**BARRY BUCKNELL**  
designs a unit  
to make dining  
alcoves larger

During the last century, architecture has increasingly concentrated on the aggregation of few domestic models that were, in their internal spatial organization, **unquestioned**. This has led to an understanding that these models constitute the 'natural' composition of civilized living space and that they cannot be interpreted differently.

Two dominant models for living within the industrial city emerged from this process: **the apartment** and **the single-family house**. Both for the nuclear family, they contribute to the same purpose; 'the individuation of their members', representing the idea of domesticity as the antidote of the machinic, dirty and chaotic industrial city, where production took place.<sup>48</sup> These models aim to create 'frictionless' interiors where interaction (viewed as friction) is minimized and every individual and every activity is confined to specific rooms. This composition of specific spaces is put together through a corridor that unites spaces while separating individuals, and with it, defining the modern notion of privacy. "With this came a recognizably modern definition of privacy, [...] in which self was, for the first time, felt to be not just at risk in the presence of others, but actually disfigured by them."<sup>49</sup> This definition of privacy supports Sloterdijk's argument that at the hearth of nuclear family living is the typology of the **living cell** (studio or one-room apartment). In his article 'Cell blocks, Egospheres, Self-container', he describes the individualism that modern Western culture imposes on its members, by demonstrating the completeness of the instruments that are furnished by the living cell and how they transform the symbiosis with others into 'autosymbiosis', also described as **independence**.

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48. Aureli and Giudici, "Familiar Horror", 126.

49. Evans, "Figures, Doors and Passages", 75.

Sloterdijk uses the metaphor of a cellular compound composed of cells (egospheres) in order to describe the apartment within the mass housing ensembles. Meanwhile, the apartment itself is composed of atoms; the one-room apartment with one inhabitant.<sup>50</sup>

Western living cell aims to include the minimal architectural and sanitary conditions for the inhabitant to be able to life on his/her own, independent from the outside world. Thus, the basic living condition includes the necessary equipment for sleeping, cooking (and table for eating) and cleaning (bathroom and toilet), storage, a telephone, media connection device (antenna, internet – lately) and so on<sup>50</sup>, which differs from the living cell in Soviet ideal that is reduced to bare minimum within 5 square meters of extreme individuality where the rest of the basic needs are socialized.<sup>51</sup>

Sloterdijk describes the neighborhood and the apartment complex, as a field of “connected isolations”, referring to the division of space through shared walls that create an *illusion of autonomy*. He points out the similarity between this condition and the one in Napoleon’s France, observed by Marx in the 19<sup>th</sup> century. Marx compared the French nation to a sack of potatoes, arguing that the isolated living units of small-parcel-holders have prevented them from forming an organized public capable of articulating their shared interests and get what they wanted.<sup>52</sup> They were living in similar conditions but isolated from each other due to their production methods (surrounding each unit with parcels of land), and the small number of openings due to the window tax. Each peasant family was self-sufficient, enclosed in its habitation.

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50. Peter Sloterdijk, “Cell Block, Egospheres, Self-Container,” Log 10(2007): 91.

51. Christina E. Crawford, “From the Old Family—to the New”, Harvard Design Magazine, no.41, Fall/Winter 2015.  
<http://www.harvarddesignmagazine.org/issues/41/from-the-old-family-to-the-new>

52. Saul K. Padover, The Karl Marx Library. Arr. and Edited, with an Introd. and New Translations, by Saul K. Padover. (New York; Toronto: McGrawHill, 1977), 198, quoted in Peter Sloterdijk, “Cell Block, Egospheres, Self-Container,” Log 10(2007): 94.

The second task of the modern apartment plays an important role in the economy. As Aureli describes in several writings, Western modern living also aims to condition the desires and aspirations of its inhabitants, using the house as a tool, especially the '*interior*'. As the opposite of the chaotic and impersonal city, the interior that people 'own' needs to gain personality and coziness, which requires investing time and money. The rooms within the apartment need to speak for their inhabitants' personalities.

What is defined as '*familiar horror*' in Aureli's writings, in reference to Paolo Virno's article of the same title, is the realization of the fact that these ambitions and desires that we consider intrinsic to ourselves, such as to own a house that we can personalize and to be part of a nuclear family, are instead, imposed on us by a system of social and economic issues.<sup>53</sup> But this realization might trigger something more than horror; it can allow us to question and rethink our domesticity.

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53. Aureli and Giudici, "Familiar Horror", 127.

Georges Teyssot  
*Il Progetto Domestico*

“...we now know that, within the extensive period of history from the end of 18<sup>th</sup> century up to 1960s, “there has been a slow development of domestication of social life, normalization of spaces and of behavior and the setting of moral standards, based on techniques of impulse control and channelling desires towards the cycle of production - that is consumism. The project resulting from this modern strategy is what we call the Domestic Project today.”

Aureli and Giudici  
*Familiar Horror*

“Designed to be cleaned, refurbished, and beautified, the house or apartment incurs expenses, encouraging workers to earn more to improve it and further forcing women to unpaid labor to maintain it. Ideally, the house, if not the apartment, must be owned, sinking workers into debt”

Marullo

*Architecture and Revolution. The Typical Plan as  
Index of Generic*

“If mass production, as defined by Henry Ford, consisted of fabricating large quantities of commodities at a minimum cost [...] the necessary next step to absorb this kind of voluminous production would have been to stimulate an adequate degree of consumption by creating a “social factory,” which, rather than producing objects for masses, would shape masses for objects.”

# CONCLUSION

Today, as architects, we still follow a preset toolbox to compose living spaces. In the post-Fordist environment that we currently find ourselves, these dichotomous and categorical relationships between private and public; individual, family and society, need to be further articulated to match our reality. The current housing problem is, more than affordability and energy-efficiency, one of contradiction between the notions of family that ideologically persist as the need for a sense of togetherness and solidarity while challenged economically in its nuclear family structure. Most of the solutions offered by architects today either propose miniature versions of the modern living cell, or aggregations of empty boxes to be constructed into the traditional family apartment by the inhabitants. While these solutions may efficiently respond to issues of rapid urbanization and affordability, they don't challenge the 'familiar horror' of apartment living.

Economic crises, globalization and rapid technological advancements have created a scene where the nuclear family living and homeownership are luxuries of the past, work is no longer confined within the traditional workplace or working hours, and people are no longer geographically stable. Although these tendencies don't yet make up a conclusive lifestyle, they indisputably have a strong influence on the lifestyle changes in motion. They influence strongly the generations that are born into such changes and that adapt their values accordingly. The generation that has intensely experienced the period of transition - where the traditional and the habitual no longer respond to social tendencies, but yet the boundaries of questionability are not yet clear, - is the Generation Y. Their reaction to the current situation supplies valuable information on the direction toward which these changes might lead us. For this reason, the second chapter is dedicated to research on the Millennial generation; their social values and needs, especially in relation to living spaces.

“Social rituals,  
the demands of  
work, and trends  
in life planning  
have changed;  
d o m e s t i c  
architecture has  
not.”

Niklas Maak, in  
“Post-familial  
Communes in  
Germany”

# BIBLIOGRAPHY

## *Chapter 1*

Alberti, Leon Battista. *On the Art of Building in Ten Books*, trans. Joseph Rykwert, Neil Leach, and Robert Tavernor." Cambridge, Mass.: MIT Press, 1988.

Arendt, Hannah. *The human condition*. University of Chicago Press, 1998.

Aureli, Pier Vittorio. "Life, Abstracted: Notes on the Floor Plan." *E-Flux Journal, Representation*, October 18, 2017. <https://www.e-flux.com/architecture/representation/159199/life-abstracted-notes-on-the-floor-plan/>

Aureli, Pier Vittorio. "The Dom-ino Problem: Questioning the Architecture of Domestic Space." *Log* 30 (2014): 153-168.

Aureli, Pier Vittorio & Giudici, Maria Shérézade. "Familiar Horror: Toward a Critique of Domestic Space." *Log* 38 (2016): 105-129.

Aureli, Pier Vittorio & Tattara, Martino. "Production/Reproduction: Housing beyond the Family". *Harvard Design Magazine*, no.41, Fall/Winter 2015. <http://www.harvarddesignmagazine.org/issues/41/production-reproduction-housing-beyond-the-family>

Bergmann, Bettina. "The Roman House as Memory Theater: The House of the Tragic Poet in Pompeii." *The Art Bulletin* vol.76, no. 2 (1994): 225-56. doi:10.2307/3046021.

Cahill, Nicholas. *Household and city organization at Olynthus*. Yale University Press, 2002.

Carmo, Mario. "The Architectural Principles of Temperate Classicism: Merchant Dwellings in Sebastiano Serlio's Sixth Book." *RES: Anthropology and Aesthetics* 22, no. 1 (1992): 135-151.

Crawford, Christina E.. "From the Old Family—to the New". *Harvard Design Magazine*, no.41, Fall/Winter 2015.  
<http://www.harvarddesignmagazine.org/issues/41/from-the-old-family-to-the-new>

Eleb-Vidal, Monique and Anne Debarre-Blanchard. *Architecture de la Vie Privée*. Bruxelles: Archives d'Architecture Moderne, 1989.

Evans, Robin. "Figures, Doors and Passages." In *Translations from drawing to building and other essays*, 55-91. London: Architectural Association, 1997.

Federici, Silvia. *Caliban and the Witch: Women, the Body, and Primitive Accumulation*. Brooklyn (NY): Autonomedia, 2004.

Galetti, Paola. *Abitare nel Medioevo. Forme e vicende dell'insediamento rurale nell'Italia meridionale*. Firenze: Le Lettere, 1997.

Gisella, Bassanini. *Tracce silenziose dell'abitare. La donna e la casa*, Milano: Franco Angeli, 1990.

Haklay, Gil, and Gopher, Avi. "A new look at shelter 131/51 in the Natufian site of Eynan (Ain-Mallaha), Israel." *PloS one* 10, no. 7 (2015): e0130121. <https://doi.org/10.1371/journal.pone.0130121>

Hayden, Brian. "Neandertal social structure?" *Oxford Journal of Archaeology* 31, no. 1 (2012): 1-26.

Lynch, Kathleen M. "More Thoughts on the Space of the Symposium." *British School at Athens Studies* 15 (2007): 243-49. <http://www.jstor.org/stable/40960593>

Maak, Niklas. "Post-Familial Communes in Germany". *Harvard Design Magazine*, no.41, Fall/Winter 2015.  
<http://www.harvarddesignmagazine.org/issues/41/post-familial-communes-in-germany>

Maak, Niklas. *Living Complex: From Zombie City to the New Communal*. Translated by Bram Opstelten. Munich: Hirmer, 2015.

Marullo, Francesco. "Architecture and Revolution. The Typical Plan as Index of Generic." In *The City as a Project*, edited by Pier Vittorio Aureli, 216-260. Berlin: Ruby Press, 2014.

Marx, Karl. *Capital: A Critique of Political Economy*. vol. 1, translated by Ben Fowkes. New York: Penguin, 1990. 871–940.

Massachusetts Institute of Technology. "House A vii 4". Accessed October 15, 2018.  
<http://web.mit.edu/21H.405/www/olynthos/vii4.html>

Murcia, Francisco J.. "Wine, Women, and Wisdom: The Symposia of Ancient Greece". *National Geographic History*, January/February 2017.  
<https://www.nationalgeographic.com/archaeology-and-history/magazine/2017/01-02/ancient-greece-symposium-dinner-party/>

Padover, Saul Kussiel. *The Karl Marx Library*. Arr. and Edited, with an Introd. and New Translations, by Saul K. Padover. New York; Toronto: McGrawHill, 1977.

Parco Archeologico di Pompeii. "House of the Tragic Poet". Accessed October 29, 2018.  
<http://www.pompeiisites.org/Sezione.jsp?idSezione=599>

Ponte, Alessandra. "Lo Spazio della Nursery." In *Il Progetto domestico: la casa dell'uomo: archetipi e prototipi*, edited by Georges Teyssot, 146-153. Electa, 1986.  
Rosenfeld, Myra Nan. "Sebastiano Serlio's Late Style in the Avery Library Version of the Sixth Book on Domestic Architecture." *Journal of the Society of Architectural Historians*, vol.28, no. 3 (1969): 155-172.

Sloterdijk, Peter. "Cell Block, Egospheres, Self-Container." *Log 10* (2007): 89-108.

Teyssot, Georges, ed. *Il Progetto Domestico. La casa dell'uomo: archetipi e prototipi*, vol.2. Milano: Electa, 1986.

Thomas, Yan. "La valeur des choses. Le droit romain hors la religion." In *Annales. Histoire, sciences sociales*, vol. 57, no. 6, pp. 1431-1462. Cambridge University Press, 2002.

Wengrow, David. "'The changing face of clay': continuity and change in the transition from village to urban life in the Near East." *Antiquity* 72, no. 278 (1998): 783-795.



## Chapter 2.

### *Millennial Concepts in Living*



Illustration by Farley Katz, for the article "Some Health-Insurance Plans That Would Actually Work for Me" by Jason Adam Katzenstein on the New Yorker. Published on December 14, 2017.

Today, as the industrialization process has finally shaped its society – into a pattern of singles and nuclear families located in the two kinds of dwellings representing an escape from the work environment, convinced that this organization is rooted in nature – its ideals have concurrently become (especially economically) unsustainable. Within this system so carefully planned and slowly incorporated in our lives, cracks have started to form. The triumph of financial over social is radicalized and home maintains its role as an important tool in naturalizing social and economic imbalances. The ideals we are taught to pursue, such as to have a family, to own a house or apartment to personalize, and a stable work-life isolated from home are thus at risk.

In the current situation where the income gap is rapidly growing, hitting a record high worldwide, spaces of dwelling that people can afford are divided by a similar gap in sq meters. This situation has led to the financialization of houses when people - fueled by the will to express themselves through homeownership - discovered that using their houses as capital to generate money could enable them to access even better houses.

As the home was financialized, its primary function has shifted from previous social interpretations,<sup>1</sup> into accumulating value on the market. Houses were turned into mortgages, split up, pooled and then sold, thus becoming immaterial entities in the global market,<sup>2</sup> rather than a tangible product, or the social product it has always been; the 'family home', be it nuclear family or extended.

Inhabiting a money generator is not cheap. Especially within the current urbanization rates and luxury apartment market, in cities such as Hong Kong, Monaco, London and Dubai where prices of luxury apartments go as high as 100,000 euros per square meter, bringing up the price range of the rest of the dwelling units together with them. In the United States, rent prices have doubled since the 70s, while income has only increased by 10% (increase rate calculated by excluding the richest 10% of the population).<sup>3</sup>

An important transition in the lives of young adults in our society today; the transition from home to independent household, is directly related to the economic transition into paid work. The job market is radically changing in the last few years and offers less certainty, turning this transition into a much longer process than it used to be half a century ago. Unemployment and underemployment have hit record numbers and a big part of the population is now either freelancers in the 'gig economy' not knowing when or where the next gig will be, or temporarily hired workers for single

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1. See Chapter 1.

2. Space Caviar ed., SQM: The Quantified Home, Lars Müller Publishers, 2014: 21.

3. Saskia Sassen, *Expulsions: Brutality and complexity in the global economy*, Harvard University Press, 2014.

projects. Chasing good jobs in this frenetic market requires a mobility that is only possible in the current globalized western culture, and it also comes with a prize. It makes it difficult to consider settling down before accumulating a certain amount of work experience, preferably international, required by good jobs that offer stability. Thus the 'ideal' of the nuclear family, becomes a luxury.

Meanwhile, the difficulty of finding affordable living spaces is expected to worsen, due to the rapid urbanization that awaits our cities. The World Urbanization Prospects by United Nations clarifies that by the year 2050, 41 mega-cities are expected to house more than 10 million inhabitants each, adding 2.5 billion people to the world's current urban population. 90% of this urbanization is expected to take place in Africa and Asia, while the existent megacities will also become further populated; Tokyo is expected to have 37 million inhabitants by the year 2030, followed by Delhi with 36 million. Although politicians in these cities have started to accept the challenge that stands on their way, the large-scale projects that they promise don't seem to be enough to solve this problem.

*“In fact, to house 10 billion people, we need to build a city the size of New York every second month for the next 35 year.”*

*Space10*

Encountering so many difficulties while trying to establish a standard that isn't possible anymore, we are slowly realizing that such standards may not be as essential as they were thought to be. The crises that characterize our time also give us the opportunity to question our traditions in order to establish new ones. To explore forms that can be home to new ways of living, it is an important step to understand the culture, the habits and the values of the people who will inhabit these spaces. Generation Y has been an important group in defining the changes in the living environment. They are willing to accept less private space and delay homeownership in order to experience life in vibrant city centers that offer exciting job opportunities, but still seeking the community support of living with others. This chapter is dedicated to demographic research on Millennial generation, based on the hypothesis that they are the initiators of a demand that will persist for future generations of young adults, thus putting the Millennial generation in a position of catalyst toward a new way of living.

## *DEFINING GENERATIONS*

A generational study is an important tool for measuring public attitudes on key issues, and this paper will make use of such studies in the experimentation of potential new ways of living. Usually referring to a cohort of individuals born over 15-20 years, generations are defined by their location in history.<sup>4</sup> Age places an individual in a cohort as well as placing them in a lifecycle – young adult, middle-aged and retiree. These two aspects are important tools in predicting differences in attitudes and behaviors.

According to generation experts William Strauss and Neil Howe, the characteristics that shape each cohort are the results of important events that occur as they progress through life. These events and circumstances such as wars, economic booms or bursts and social forces influence everyone simultaneously. What sets apart the impact on a specific age cohort is when these major events occur in their lifecycle, and whether it occurs at the point where those individuals are in the process of forming their opinions.<sup>5</sup>

The term Millennial was coined by Strauss and Howe, for their book “Generations: The History of America’s Future”, when they realized that the first members of Generation Y were

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4. “The Whys and Hows of Generations Research,” Pew Research Center, September 3, 2015, <http://www.people-press.org/2015/09/03/the-whys-and-hows-of-generations-research/>. Last accessed May 4, 2018.

5. Ibid.

to come of age with the new millennium. Born after 1980, they are largely made up of the children of Baby Boomers generation (born between 1946-1964). The end date of this generation may vary between 1996-2000 based on the study in question.

Neil Howe places the Millennial generation in history at a time where childhood was revalued and family values had regained importance.

*“When the first Millennials were born, we saw the appearance of baby-on-board bumper stickers all across America.”<sup>6</sup>*

This positive understanding of childhood brought the protection of children, in forms of protective playground materials, bicycle helmets and a multi-billion dollar home protection industry. Howe defines the childhood of this generation in America through the sheltering of highly involved parents and a sense of specialness that comes with it.

Finally, the most important aspect that defines Millennials is how they choose to use technology. Coming from a desire of Boomers to perform personal creative work, individual computers emerged in the 70s and 80s and continued to be a source of individual liberty until Millennials started using these tools mostly to communicate with friends, moving technology back to the community. Since then, we have witnessed technology being part of community action, delivering up-to-minute information and helping set masses in motion.

Next chapter will look into the Millennial generation, their priorities and values, based on generational and demographic research that has been pursued within the last decade. It aims to clarify key characteristics of this generation’s ideal dwelling space.

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6. Ibid.

## *DEFINING MILLENNIALS*

With recent population growth, including a big wave of immigration that added to women of childbearing age, Millennials are expected to become the largest generation of American population by the year 2019, surpassing the numbers of Boomers, the pre birth control medication generation.<sup>7</sup> While in Europe Millennials account for a minority of the adult population, ranging from 28% in Poland to 19% in Italy.<sup>8</sup> This is one of the biggest differences between American and European Millennials.

Due to wider availability of information on the Millennial generation in the United States and the quantity of previous generational studies pursued in the context, this study will take into consideration the Millennial population of America, unless indicated otherwise. Comparisons with Millennial population of Europe will be made, when information is available.

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7. Richard Fry, "Millennials aren't job-hopping any faster than Generation X did," Pew Research Center, April 19, 2017, <http://www.pewresearch.org/fact-tank/2017/04/19/millennials-arent-job-hopping-any-faster-than-generation-x-did/>. Last accessed May 4, 2018.

8. Bruce Stokes, "Who are Europe's Millennials?" Pew Research Center, February 9, 2015, <http://www.pewresearch.org/fact-tank/2015/02/09/who-are-europes-millennials/>. Last accessed May 4, 2018.

## *THEY EXPECT DIVERSITY*

Studies show that today Millennials are the most ethnically and racially diverse adult generation. A Pew Research Center study demonstrates that in 2014, 57% of Millennials in America were “non-Hispanic whites, while 21% are Hispanic, 13% are black and 6% are Asian”<sup>9</sup> while a 2018 report by Brookings shows that 44% of Millennials are now minority.<sup>10</sup> This demographic structure has led Millennials to be more accepting of interracial marriages than their elders; 60% of Millennials are indifferent to the trend while 34% assess it as a good thing, according to the 2010 Pew Research Center study. The same study shows that the tolerance among Millennials for other nontraditional behaviors related to marriage and parenting is also higher than previous generations. “Whether the trend is more single woman having children, more people living together without being married, more mothers of young children working outside home or more gay couples raising children, Millennials are more receptive than their elders.”<sup>11</sup> This behavior may be due to the fact that this generation was subject to higher visibility of sexual minorities within the media, at a strategic age where value systems and opinions are shaped. The results of a survey conducted by RCLCO in 2007, where participants were asked to choose from a list of characteristics to design their ideal community or neighborhood; 73% chose “diverse types of households (singles, couples, families)”, 78% chose “diverse types of people (mix of races and ethnic backgrounds)”, 77% chose “different housing types & styles and 42% chose “different income levels.”<sup>12</sup>

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9. “Millennials: A Portrait of Generation Next,” Pew Research Center, 2010, <http://assets.pewresearch.org/wp-content/uploads/sites/3/2010/10/millennials-confident-connected-open-to-change.pdf>. Last accessed May 6, 2018.

10. William H. Frey ed. “The Millennial Generation: A Demographic Bridge To America’s Diverse Future,” Brookings Metropolitan Policy Program, January 2018, [https://www.brookings.edu/wp-content/uploads/2018/01/2018-jan\\_brookings-metro\\_millennials-a-demographic-bridge-to-americas-diverse-future.pdf](https://www.brookings.edu/wp-content/uploads/2018/01/2018-jan_brookings-metro_millennials-a-demographic-bridge-to-americas-diverse-future.pdf). Last accessed May 4, 2018.

11. PRC, “Millennials: A Portrait of Generation Next:” 51.

12. “The Impact of Gen Y on Housing - The Market and Demographic Perspective.” RCLCO, July 23, 2013, <http://www.rclco.com/pub/doc/presentation-2013-07-23-APA-Virginia-Annual-Planning-Conference.pdf>. Last accessed May 4, 2018.

## *BACK TO SCHOOL*

A 2015 study by PRC compares the educational attainment of Millennials, to that of previous generations and they seem to be “on track to be the most educated generation to date.”<sup>13</sup> At the time of the research, 27% of Millennial females and 21% of Millennial males already had college degrees and a total of 63% valued a college education and were planning to get one. This in contrast to only 20% of Gen X females and 18% of Gen X males that had a college degree at those ages. However, the rising price of education and the building up student loan debts push Millennials to view education more as an expense than an investment and they are savvy and patient about choosing the right program. “They will choose to not go to school until they find a good fit both for program, as well as how they fit culturally within the institution. This is a huge shift from prior generations.”<sup>14</sup>

Millennials don’t stop after a bachelor’s degree. Another research from PRC shows that 35% of 18-to-34 year-olds in 2011 say they went back to school due to economic conditions, “college enrollment rates are tied to employment declines among young.”<sup>15</sup>

## *BELIEF*

Pew Research Center’s studies demonstrate that fewer young adults belong to a particular faith today. The study compares the percentage of unaffiliated Millennials in the United States, to those of previous generations when they were at a comparable point in their lifecycle. While 26% of Millennials are unaffiliated, describing their religion as “atheist,” “agnostic” or “nothing in particular,” only 20% of Gen Xers and 13% of Baby Boomers had the same approach when they were at a similar age.<sup>16</sup>

Another study on views of fate and future delineates a difference between American and European Millennials. Half of Millennials in six of the seven nations in European Union that Pew Research Center surveyed in 2014 believed “success in life is pretty much determined by forces outside our control,” including 63% of young Germans and Italians and 62% of young Greeks and Poles. Britain was the only exception with only 37% of those ages 18 to 33 agreeing

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cessed May 23, 2018.

13. “Millennials On Track to be the Most Educated Generation to Date,” Pew Research Center, March 17, 2015, [http://www.pewresearch.org/fact-tank/2018/03/16/how-millennials-compare-with-their-grandparents/ft\\_millennials-education\\_031715/](http://www.pewresearch.org/fact-tank/2018/03/16/how-millennials-compare-with-their-grandparents/ft_millennials-education_031715/). Last accessed May 4, 2018.

14. “Millennials – Changing the Face of Higher Education,” The Pacific Institute, <http://educationinitiative.thepacificinstitute.com/articles/story/millennials-changing-the-face-of-higher-education>. Last accessed May 4, 2018.

15. Paul Taylor, et al. “Young, underemployed and optimistic: Coming of age, slowly, in a tough economy,” Pew Research Center, 2012.

16. PRC, “Millennials: A Portrait of Generation Next.”

with the statement. Only 43% of young Americans share the same view. PRC argued this to be a cultural issue instead of a generational one, based on similar numbers in contrast between older generations that see themselves as victims of fate, in Europe and in America.<sup>17</sup>

## TECHNOLOGY

Millennials who think their generation is unique, say that technology use is what sets their generation apart.<sup>18</sup> This might be true; they are the first 'always connected' generation of history. Starting from the early stages of their lives, they have had the possibility to connect with their friends through Internet. What changed in the last two decades is the frequency and the ability to use the internet for various activities.

Wireless Internet connection has created an unprecedented quantity of information flux on a daily basis. While a study in 2010 studied how many Millennials had wirelessly connected to Internet away from home or work (62%), questions today have shifted in regions such as North America or Western Europe, where 80% is using the internet.<sup>19</sup> Studies now question the "daily time spent on mobile by Millennials internet users" (223 minutes in 2017 according to Statista) or "the most popular daily online activities of adult internet users in the United States, by age group." This research by Statista shows that more than 70% of those ages 18 to 29 "send or read an email online", "use search engine to find information" and "use a social networking site" while at least 50% "buy a product online", "check weather reports and forecasts online", "do any banking online", "get news online", "send instant messages" and "watch a video on a video-sharing site."<sup>20</sup>

Many of these activities that people prefer doing online today were traditionally located in spaces that were dedicated to that particular purpose. Going to the bank or a supermarket or shop, turning the television on for news and weather reports or going to a newsstand daily in order to read the news were necessary and daily activities that today have become choices. These changes in behavior reshape the

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17. "US and European Millennials Differ on their views of fate, future," Pew Research Center, February 10, 2015, <http://www.pewresearch.org/fact-tank/2015/02/10/u-s-and-european-millennials-differ-on-their-views-of-fate-future/>. Last accessed May 4, 2018.

18. PRC, "Millennials: A Portrait of Generation Next."

19. Statista: The Statistics Portal, "Statistics and Market Data on Online Demographics & Use," <https://www.statista.com/markets/424/topic/537/demographics-use/>. Last accessed May 4, 2018.

20. Statista: The Statistics Portal, "Most popular daily online activities of adult internet users in the United States as of February 2017, by age group," <https://www.statista.com/statistics/184541/typical-daily-online-activities-of-adult-internet-users-in-the-us/>. Last accessed May 4, 2018.

spaces that surround us, we can now live without having a bank office or a supplies shop around the corner, or without a telephone company store nearby, or without a television in our houses that once had a room dedicated to itself with furniture organized around visibility of its screen.

For many, televisions and cable subscriptions are now replaced with the Internet. Accessing news and podcasts online, people also subscribe to commodities like Netflix that enable them to freely choose what to watch and access it at any time, with help of a computer or mobile device. These services allow users to access more with less equipment. What once required a television and a cable box and an antenna is now available through a computer, a wireless connection and as many subscriptions as needed. Users are then free to improve the sound and visualization qualities with more equipment such as a bigger screen or a projector and speakers, all of which require less and less cables and smaller machines. Such changes have the potential to imply strong changes in the conception of necessity when it comes to living spaces.

## *SHARING ECONOMY*

"Individuals participate in sharing economy to create value, which is independent from money."<sup>21</sup> It is not a coincidence that Millennials, the generation that was hit the hardest by the economic crisis as they were transitioning into adulthood, are willing to take part in sharing economy. With the jobs vanishing and businesses closed, the youngest group of workers found themselves among the last hired and first to lose their jobs. As a result of the lifecycle effect, the period between the ages 18 and 30, has always been an economically unstable period, for previous generations as well, and for young Millennials the recession has made it even harder to land the first full-time job, to start a career or to buy a house to start a family in.

Under these circumstances, Millennials have had to make choices and prioritize what matters to them in order to obtain the lifestyle they desire. They have decided that they do not want to miss out on city life so they decided to invest their money into living in the city and they did so by becoming renters. They decided they didn't want to spend time commuting so they decided to invest in location instead of square-meters of private space. They decided they needed personal mobile phones and computers that are up to date so they decided to share other services such as kitchens, bicycles or cars. Step by step, more is shared. Ownership left its place to experience. Why buy a DVD to play on a DVD player when you can watch a movie online by renting it for a smaller cost to watch it on a computer that you already have for other purposes? The joy of owning a collection of DVDs

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21. Lawrence Lessig, *Remix: Making Art and Commerce Thrive in the Hybrid Economy* (Penguin Books, 2008).

does not require shelves today, it only requires renting out space in 'the cloud' through a subscription and a computer that allows access to it. Convenient, if you have given up square meters in order to live in the city center. Throughout time with technological innovations that allowed to take this approach further, sharing has become a part of our lives.

## *CHANGING WORK ETHICS*

Millennials are job-hopping and they lack the will to maintain a position and the loyalty to stay with an employer for more than 2 years. This is a misreading that has been the widespread opinion on Millennials in the workforce, but it is coming to an end. A recent study by PRC shows that Millennials job tenure is actually longer than that of Gen Xers when they were at the same stage in their lives.<sup>22</sup>

What has until recently been misinterpreted about this generation's work ethics is the reason for which they are job-hoppers; they are searching for a job that feels worthwhile and they will keep trying until they find one.<sup>23</sup> For many, this search has led to starting their own companies, thus the rise in numbers of startups, and it brought others to 'job-hop' until they find a place where they feel that their work matters. However, this is not the only criterion when Millennials look for in the ideal workplace where they can finally stay. A healthy work-life balance and a desirable work environment are also equally important and they are willing to take pay cuts for the right job.

Millennials have changed the assumption on what career advancement is supposed to look like. 10 years ago it was about keeping your job as long as possible, climbing up the ladder slowly and steady and putting up with the negatives of the job year after year, in order to eventually be recognized for it. Today having 5 different job experiences on one's resume by the age 35 demonstrates a conscious search for career development and the capability to take initiative in search of motivation-driven work.

Millennials' tendency to take their time to find their place in the workforce is beneficial to employers that seek employees that enjoy their work. A CareerBuilder survey from 2014 has found that "employers expect a higher rate of job-hopping among young workers who are still trying to find their footing for their long-term career,"<sup>24</sup> but they also consider job-

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22. Richard Fry, "Millennials aren't job-hopping any faster than Generation X did," Pew Research Center, April 19, 2017, <http://www.pewresearch.org/fact-tank/2017/04/19/millennials-arent-job-hopping-any-faster-than-generation-x-did/>. Last accessed May 4, 2018.

23. Amy Adkins, "Millennials: The Job-Hopping Generation," Gallup, May 12, 2016, <http://news.gallup.com/businessjournal/191459/millennials-job-hopping-generation.aspx>. Last accessed May 4, 2018.

24. "Nearly One-Third of Employers Expect Workers to Job-Hop," CareerBuilder, May 15, 2014, <https://www.careerbuilder.com/share/aboutus/>

hopping less acceptable once a worker reaches his/her early to mid-30s.

A survey by Cornerstone OnDemand has demonstrated these trends in numbers; unveiling the number of employees that are willing to make sacrifices to find fulfillment in their careers. "89% of employees would consider making a lateral career move with no financial incentive in order to start a new career or take on a professional challenge."<sup>25</sup> The same study brings to attention another change that defines the job market lately; the eagerness to relocate. 77% of employees would relocate if given the chance, even just temporarily. The idea attracts the experience-driven Millennials that are delaying marriage and having children, for various reasons. However, relocation is not the only type of flexibility that workers seek, more and more employers offer flexible schedules and the ability to work remotely.

The digital has brought another trend upon the job market. The 'gig economy' model where "companies tend toward hiring independent contractors and freelancers instead of full-time employees"<sup>26</sup> is spreading fast. This trend started out as an opportunity for workers that seek the liberty to work remotely from anywhere in the world and ideally, control the amount of work they will be doing. Unfortunately, the competition that the wider range of applicants available for employers to choose from, unbounded by the proximity of the applicant, has forced prices to a very low point. When a company in New York needs a new logo and decides to hire a graphic designer, one that lives in Mumbai will likely offer the same service at a lower price than a graphic designer that needs to sustain a living in New York City. While enabling companies to access cheaper and more efficient services, with the flexibility to hire temporary employees for busier times or specific projects, this trend has made it more difficult for workers to pursue full-time careers.

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pressreleasesdetail.aspx?sd=5%2F15%2F2014&id=pr824&ed=12%2F31%2F2014. Last accessed May 4, 2018.

25. "Research Reveals the Driving Force behind American Employees and Their Career Choices," Cornerstone OnDemand, March 23, 2016, <https://www.cornerstoneondemand.com/company/news/press-releases/research-reveals-driving-force-behind-american-employees-and-their-career>. Last accessed May 4, 2018.

26. Definition taken from Investopedia.com.

## MILLENNIAL CONCEPTS IN LIVING

Similar to their attitude in pursuing careers that meet their ideals, Millennials are ready to make sacrifices to reach the lifestyle that they desire. The objective of this paper is to frame new concepts of living that emerge from the millennial way of life.

Sociologist Gill Jones has long studied young people's patterns of leaving home and how people make their transitions to adulthood in modern societies. In her 1995 book "Leaving Home", she argues;

*"An intermediate stage, between living with parents and living with a partner, has become more common. Young people need a variety of affordable housing which is appropriate for single people, whether workers, trainees or students."*

Later in 2000 she specifies that young people "may need to be geographically mobile in order to chase courses and jobs, and need housing that offers flexibility"<sup>27</sup> and that this transition to independent home cannot be paralleled by a full adult income since "young people are having to leave home

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27. Gill Jones, "Experimenting with households and inventing 'home'," *International Social Science Journal* 52, no. 164 (2000): 189.

before they can begin to receive full income.”<sup>28</sup>

Perhaps the most important statement of Jones about the living arrangements of young adults today is as follows;

*“The Millennial generation as a whole, connects its personal and social identity to its physical surroundings, therefore, these young adults desire to establish a personal identity through “sense of place” in their home and a social identity through “sense of community” in their living environment.”<sup>29</sup>*

What are the characteristics of places that this generation feels they could call home? Several studies and surveys have been conducted to better understand the ideal community of this generation. Following part of this chapter is an attempt to formulate the results of these studies.

## *LIFE INTERRUPTED*

For many reasons mentioned above, the long-term plans and daily lives of young adults today are heavily influenced by the economic conditions. “If school years delayed the financial independence, the Great Recession just about shattered it.”<sup>30</sup> This sharp observation is demonstrated in numbers in PRC’s report. Among the 18 to 34-year-olds that responded to their survey, 49% have ‘taken a job just to pay the bills’ in recent years, because of economic conditions. 35% have stated they have ‘gone back to school’ while 24% have ‘taken an unpaid job’, 24% ‘moved back in with their parents’, 22% ‘postponed having a baby’ and 20% ‘postponed getting married.’<sup>31</sup>

## *RENTERS*

This generation grew up watching their elders struggle with mortgages and they are cautious about getting into a similar situation. The majority wants to make sure they are financially ready before they take a step forward towards homeownership, even if this means having to postpone getting married and having children. A study by PRC found out that only 22% of Millennials who moved in 2016 in the

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28. Ibid, 191.

29. Jones, Gill. Leaving home. (Buckingham: Open University Press, 1995.

30. Derek Thompson, “Adulthood Delayed: What Has the Recession Done to Millennials?” The Atlantic, February 14, 2012, <https://www.theatlantic.com/business/archive/2012/02/adulthood-delayed-what-has-the-recession-done-to-millennials/252913/>. Last accessed May 4, 2018.

31. PRC, “Millennials: A Portrait of Generation Next.”

United States owned their own home after they moved, in comparison to 35% of Boomers and 34% of Gen Xers when they were between ages 25-35.<sup>32</sup>

Even though it is stronger today, this trend is also highly influenced by their place in lifecycle, and it is expected to slowly leave its place to homeownership among Millennials, as they get married and have children. However, the phenomenon of delay will continue with following generations. RCLCO, a real estate advisor company, has shown in their 2013 report that as Millennial generation grows up, Gen Z will take their place as renters in the market.<sup>33</sup>

## *LOCATION MATTERS*

Time is valuable for Millennials and they don't want to spend it driving between home and work every day. A short commute is the key when choosing where to live and even during this short commute Millennials find it important that they can 'get things done' in the meantime. Biking to where they need to go is one of the ideal options since it offers a healthy approach to commuting, taking time off their workout schedules. Where biking is not an option, they prefer public transportation, which allows them to complete tasks via mobile phones or laptops, if a WiFi connection is available. With 50% of them working in the city,<sup>34</sup> the demand for housing is concentrating around city centers.

The 2016 RCLCO survey shows that renter Millennials are more urban than those who are looking to buy. It shows that 25% rented and 11% bought in the city where a mix of offices, apartments and shops can be found, while 25% rented and 22% bought in mostly residential neighborhoods of cities.<sup>35</sup>

Young adults that move to the city where they would like to enjoy the single life and all the interaction and experience that the city has to offer, are willing to pay more or give up square meters to live in the city center. Numbers from the 2017 Community Survey show that they aren't alone either. "Six out of 10 people said they would spend more (17 percent "a lot more" and 43 percent "a little more") to live in a community where they could walk to parks, shops and restaurants. More than half said they would prefer to live in an

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32. Richard Fry, "5 facts about Millennial households," Pew Research Center, September 6, 2017, <http://www.pewresearch.org/fact-tank/2017/09/06/5-facts-about-millennial-households/>. Last accessed May 4, 2018.

33. "The Impact of Gen Y on Housing - The Market and Demographic Perspective." RCLCO, July 23, 2013, <http://www.rclco.com/pub/doc/presentation-2013-07-23-APA-Virginia-Annual-Planning-Conference.pdf>. Last accessed May 23, 2018.

34. RCLCO, "The Impact of Gen Y on Housing."

35. "Millennial Preferences For Real Estate – Where Are Millennials Going?" RCLCO, January 13, 2016, <http://www.rclco.com/pub/doc/presentation-2016-01-13-logan-gregg-uli-millennials.pdf>. Last accessed March 23, 2018.

apartment or a townhouse rather than a detached house if it meant an easy walk to places they need to go and a shorter commute to work.”<sup>36</sup>

Even when they are settling down, Millennials who decide to move further away from the city centers, seek suburban centers that offer a mix of uses and direct transit to city centers. This tendency is evident in the 2012 survey of Urban Land Institute; “The Gen-Y cohort also settles for smaller (even tiny) residences in bigger cities and denser, mixed-use, 24-hour suburban centers, just as many of their baby boomer parents downsize into apartments or townhouses from bigger house-and-yard lifestyles in the suburbs”. As walkability trend extends into suburbs, a new term is used, to define the demand; walkup, that stands for “walkable urban place”, in contrast with drivable sub-urban places, replacing the ‘central city vs. suburbs’ dualism.

## *ALTERNATIVE HOUSEHOLD FORMATIONS*

The lack of affordable housing in neighborhoods that offer these possibilities has led young adults to use alternative strategies to that of living alone or in couples. They are fine with sharing anything that is shareable, including apartments, if this gives them access to commodities they seek.<sup>37</sup> In 2016, even though Millennial-run households represented the lowest numbers, compared to those headed by Generation X or Baby Boomers (which is influenced highly by lifecycle effect), they also represented the largest group in some key categories. In the US, households headed by a Millennials represent half of the cohabiting-couple households and half of those headed by a single mother.<sup>38</sup>

Especially among younger Millennials, sharing is the most recurrent strategy today, as an answer to the low housing supply. However, Gill Jones states in her 2000 article “Experimenting with Households and inventing ‘home’”, that these strategies have long existed, in different forms. She places these intermediate households, within the ‘housing careers’ of young adults, between parental home and a possible new family home, and defines 4 categories; surrogate – today in form of hostels, foyers and student halls

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36. Brad Broberg, “2017 Community Survey” On Common Ground: Winter 2017: 4-7, [http://www.oncommonground-digital.org/oncommonground/winter\\_2017\\_walkable\\_neighborhoods?pg=1#pg1](http://www.oncommonground-digital.org/oncommonground/winter_2017_walkable_neighborhoods?pg=1#pg1). Last accessed May 4, 2018.

37. G.M. Filisko, “How Millennials Move: The Car-Less Trend,” On Common Ground: Summer 2012: 18-23, [https://www.nar.realtor/sites/default/files/migration\\_files/on-common-ground-07-2012-communities-for-all-generations.pdf](https://www.nar.realtor/sites/default/files/migration_files/on-common-ground-07-2012-communities-for-all-generations.pdf). Last accessed May 4, 2018.

38. Richard Fry, “5 facts about Millennial households,” Pew Research Center, September 6, 2017, <http://www.pewresearch.org/fact-tank/2017/09/06/5-facts-about-millennial-households/>. Last accessed May 4, 2018.

of residence -, kin, peer and one-person households.<sup>39</sup> Despite an ongoing debate on whether these households are a response to constraint and whether they can feel 'homely', some experts argue that strategic planning is not necessarily the same as responding to constraint and that these household formations, of non-familial relationships, may represent 'families of choice'.

## *HOME COMMUNITY INTERFACE*

Millennials accept giving up the comfort of living alone and having less private space, because they believe that 'home' extends beyond the walls of an apartment or house, incorporating the community that helps meet their needs. This is why they are careful while choosing the community and neighborhood they will live in. Among several surveys conducted by RCLCO, in order to understand the important community features for Millennial generation, 'walkability' was found to be the key feature to community design, listed as having a 'vital role' by 71% of the respondents. Also, in their 2013 report, the research company Urban Land Institute lists 'restaurants, libraries and communal spaces' as important parts of community design, together with walking trails and sidewalks. The same report also states that this generation expects diversity in their neighborhood, including diverse types of housing styles and income levels. Nearby nightlife, gathering spaces and a pet-friendly community are also characteristics that attract these young adults.<sup>40</sup>

## *WANT CONTROL OVER THEIR SPACE*

The 2016 report by RCLCO shows that among the reasons for which Millennials consider homeownership, the most important is to have control over their space, followed by expectations of a future return on investment. This might be the sign that the existing housing supply doesn't meet the expectations of this generation and the living spaces should be studied and revolutionized in order to house the next generations.

Design is valued over size and flexible spaces are a must for this generation when choosing their living environments. Pet friendly, low maintenance, sustainable and tech savvy are other features that this generation looks for in the design of their living space. An important necessity that rises from the 'design over size' trend is storage space.<sup>41</sup>

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39. Gill Jones, "Experimenting with households and inventing 'home'," *International Social Science Journal* 52, no. 164 (2000): 186.

40. What's Next? Getting Ahead of Change," Urban Land Institute (ULI), Washington, D.C., 2012, [http://uli.org/wp-content/uploads/ULI-Documents/WhatsNext\\_2012.pdf](http://uli.org/wp-content/uploads/ULI-Documents/WhatsNext_2012.pdf). Last accessed March 27, 2018.

41. RCLCO, "The Impact of Gen Y on Housing."

When asked to list the three most important housing features, more than half have chosen affordability, interior space and interior layout. Followed by building security and amenities and the age of the building that results to be the least urgent feature for this generation.<sup>42</sup>

In a floor plan, 'size of bedrooms and kitchen' are the most important features for the respondents of the survey, followed by the 'private outdoor space' and 'storage space'. 'Kitchen finishes and features', 'size of bathrooms', 'size and amount of windows' follow.

Another aspect that involves having control over their space is subletting. As a generation that travels frequently, Millennials seek the convenience of renting out their living space while they're away. In their seasonal reports, real estate agents have shared their experience with Millennial buyers who request to make sure they can post their homes on short-term rental sites.

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42. Ibid.

## *WHAT'S NEXT?*

The key feature we can observe in these surveys is the tendency toward a shared living organization, beyond the nuclear family structure. However, the concept of shared living is not a recent invention. Rooted in the extended families that date back to 38000 BCE (see chapter 1), there have existed many variations throughout time. In the last century, collective living was already present, as the exception to the rule. It existed as communes that brought together hippies who shared social values, in the early 60s and late 70s; as kibbutzes in Israel where people worked the land and shared the outcome; as cohousing communities in Denmark that started 30 years ago - bringing together families that enjoy the advantages of being part of a community such as organizing child and elder care or carpooling - of retirement houses for the elderly and so on. Ultimately, the most recent form of shared living, the shared student flat has emerged as a strategic response to unattainable housing prices. Growing throughout the globe today, are coliving companies that offer tailor-made shared living spaces, to meet the need for inclusive housing for young adults that seek to enjoy the life in the city, at below-market prices.

Emerging in cities such as London, Hong Kong and San Francisco where the affordable housing problem is at its most acute, coliving companies have started to dominate the argument, spreading fast, armed with effective publicity.

Common is one of the first companies that seized an opportunity in this housing crisis and took up the market of young adults that fail to find quality accommodation that meets their needs as well as their budgets. It is a New York based coliving company, with a total of 400 residents in Brooklyn, Queens, Chicago, San Francisco and Washington DC, planning to expand to 1600 residents by the end of 2018. On their website, the company describes the coliving trend as "city living made better", and offers "private rooms within beautiful shared suits in friendly homes". Beyond the high-quality design features, living in one of the houses of Common comes with a membership, where everything – from setting up a wifi connection to buying cleaning supplies - is taken care of. "Our goal at Common is to keep the good parts of living with roommates," told Brad Hargreaves, the founder of the company to Business Insider, "The affordability, the social environments – we're trying to get rid of as many annoyances of communal living as we can possibly control." Common started out by converting old buildings like Brooklyn brownstones into apartments with communal amenities such as high-end kitchens and living rooms, and private bedrooms, now moving toward buildings with up to 2000 apartments. The high demand for this type of accommodation that leaves Common supply-constrained, is the reason many other companies are emerging, as well as coworking companies expanding their services into the accommodation market. WeWork has created a subsidiary; WeLive, that is combining coworking and coliving spaces. The company already opened prototype schemes in New York and in Washington DC, planning to expand to other cities in the USA. Numerous companies in the UK are combining shared living and working spaces as well, while The Collective, London based coliving company takes the lead in providing shared living spaces for the young inhabitants of the capital. Fueled by a mission "to redesign the world around our generation", the company's chief operating officer James Scott told Dezeen "the movement reflects how young people, who accept they can't get a foot on the property ladder, now value experiences over possessions", pointing out to services such as Uber, Netflix and Kindle as proof of Generation Y "choosing to do away with belongings."

*"The company has touted shared living as the future, especially for busy professionals who want a ready-made community."*

*Alison Griswold*

## *ALONE IN THE CROWD*

The appeal of shared living spaces to Millennials has a socio-cultural aspect beyond the affordability angle. They offer a possible solution to one of the biggest problems in our evermore crowded societies; loneliness. The General Social Survey found that the number of Americans saying there is no one with whom they discuss important matters nearly tripled from 1985 to 2004, with the network of confidants remaining limited to spouses and parents, resulting in fewer contacts through voluntary associations and neighborhoods.<sup>43</sup> What is more surprising is that this epidemic is affecting young people the most; a study showed that 18-24-year-olds are four times more likely to feel lonely "most of the time" as those aged over 70.<sup>44</sup> Sharing every aspect of their lives via social media while growing up, the generation of Millennials are used to being in constant communication with others. However, the Internet is also a cause of the problem. Studies state that the time spent online worsens the situation by reducing opportunities for more satisfying encounters in person.

Giving access to a community of like-minded young people, coliving seems to create a solution to social and economic challenges that people looking to start a life in big cities may encounter. Millennials are more affected by these phenomena than previous generations of young adults because they are setting out to live the single life in big cities, far from their family, at a stage of life where previous generations would have stayed home with their families until they got married.

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43. Miller McPherson et al, "Social isolation in America: Changes in core discussion networks over two decades," *American sociological review* 71, no. 3 (2006).

44. Radhika Sanghani, "Generation Lonely: Britain's young people have never been less connected," *The Telegraph*, December 28, 2014, <https://www.telegraph.co.uk/women/womens-life/11312075/Generation-Lonely-Britains-young-people-have-never-been-less-connected.html>. Last accessed May 4, 2018.

## *LESS CAN BE MORE WITH COLIVING*

However, these rapidly growing examples of what seems to be a long-term trend do not move far beyond the industrial model for singles or nuclear family living that was mentioned previously. Concentrating especially on single individuals, they leave the possibility of mixed households behind. As the above mentioned coliving companies advance towards bigger properties than renovated townhouses, the architecture seems to resemble more and more a hotel and dormitory combination; high-rise towers of WeLive host numerous rooms, accessed through a hallway where many doors are lined up, paired with shared spaces each floor that work as a living room. These early examples of coliving could mean that in the future we will all be living in hotels. Tastefully organized high-end furniture may be a desirable aspect, but it might not be enough to create the homely environment, promised by these companies.

These organizations have brought the market a step forward, by quickly defining the demand and demonstrating its profitability, but the velocity of this development – required to make profit - has outpaced the architectural studies and experiments, resulting in a reshuffling of existing typologies, attributed to hotels and college dormitories, thus creating a lack of innovative living spaces to accompany their innovative vision. Unfortunately, the primary interest that guides the building industry of private companies is profit, which doesn't

allow for experimental and social architecture, and as long as public funding for social housing is turning into personal rent subsidies, housing will continue to be constructed by private companies. The few employees working in housing associations are under pressure to meet timing and budget limitations, thus “they tend toward tried and tested solutions, meaning the usual energy-optimized, dull building blocks with protruding steel balconies they have already built a thousand times. This leaves little room for experiments, adventures, innovative ideas that passionate politicians, urban planners, and architects could push through – especially since the funds for international building exhibitions are also being cut...”<sup>45</sup>

What we need today is to experiment and try different living conditions, starting from the very core of current habits and traditions. Certain situations have already allowed experimentations resulting in interesting solutions in different parts of the world. These cases usually derive from a group of people willing to invest in working with architects in order to create their ideal living space, mostly as part of a community – not too crowded but still bigger than a nuclear family, - or from architects that have the opportunity to test their creativity even at the absence of request from a client.

There are more projects everyday that take up the challenge of creating shared living spaces by experimenting with the idea of home and what living together means for the domestic space. This thesis is concentrated on the examples that thrive to challenge and question some of the basic notions of modern living – as mentioned in the first chapter - while doing so. The case studies are explored through drawing analysis in order to discover the architectural strategies that allow them to provide the possibility of an innovative lifestyle. To better understand the organizational decisions that guide the inhabitants to interpret freely their living space while avoiding to fall into the apartment and nuclear family living habits.

Case studies used in this research are chosen from over the world, however, the majority of the projects that were chosen are from Japan. This is the result of a difference in traditional thinking between Japanese culture and Western culture. The Japanese culture understands “private”, or individual, as the core of collective, instead of as a separation from it. This view rooted in Japanese thinking has been fruitful, as community living became the convenient solution. Already in the second half of the 20th century, pioneering architects in Japan, created ‘single family houses’ that, while submitting to the nuclear family typology, were nonetheless able to modify the preset toolbox that Western architects were strictly following at the time. Thus the dissolution of modern Japanese houses into collective living spaces resulted in inspiring examples.

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45. Maak, *Living Complex*: 227.

“a self-help movement of sorts: people who want to build a home for themselves join forces and build something they cannot find in the marketplace – architecture that allows them to live the way they envisage as part of a larger group, and that often differs greatly from the profitable stacking of mid-size apartments in purely functional buildings.”

Niklas Maak in Living Complex

“Instead of being organized as an autonomous unit, housing must be conceived as a composition of equal private spaces organized in relation to shared collective spaces. Instead of being the quintessential symbol of private property, the house can be rethought as a system of collective property.” Pier Vittorio Aureli and Martino Tattara in “Production/Reproduction”

*CATALOGUE*  
*of*  
*PRECEDENTS*

# SHARED LIVING

*The case studies in this section are examples of shared living projects from all around the world, completed in the last 10 years. Additionally these examples have in common the desire to respond to the necessity of affordable and inclusive living spaces in crowded city centers.*

*Songpa Micro Housing, Seoul*  
*The Six, Los Angeles*  
*SOS Children's Village, Tadjura*  
*A house for artists, London*  
*Share House LT Josai, Nagoya*  
*Apartment for Shared Micro Living, Barcelona*  
*Yokohama Apartmens, Yokohama*  
*Moriyama House, Tokyo*  
*Apartments With a Small Restaurant, Tokyo*  
*Share House in Tokyo*  
*Stacked Student Housing, Karnataka*

## *Songpa Micro Housing, Seoul*

GENERAL INFO	Architects	SsD, Single Speed Design
	Location	Seoul, South Korea
	Completion date	June 2014
AREAS	Storeys	8
	Plot Area(sqm)	-
	Gross Floor Area(sqm)	515
	Floor Area Ratio (FAR)	-
USE	Number of Residents	11
	Number of Units	8
	Other Functions Included	unprogrammed shared spaces, a café and a toy shop in the basement, a gallery on the second floor
ADDITIONAL INFORMATION	Total floor area of residential spaces; 281sqm, of communal spaces; 234 sqm, cost per sqm of floor area;1593 eur	
SOURCE	"Songpa Micro Housing / SsD" 11 Dec 2014. ArchDaily. Accessed 31 Jan 2019. < <a href="https://www.archdaily.com/576302/songpa-micro-housing-ssd/">https://www.archdaily.com/576302/songpa-micro-housing-ssd/</a> > ISSN 0719-8884 ssdarchitecture.com Images courtesy of Ssd © SsD.	



## *The Six, Los Angeles*

GENERAL INFO	Architects	Brooks+Scarpa Architects
	Location	Los Angeles, CA, United States
	Completion date	2016
AREAS	Storeys	4
	Plot Area(sqm)	-
	Gross Floor Area(sqm)	3739
	Floor Area Ratio (FAR)	-
USE	Number of Residents	-
	Number of Units	52
	Other Functions Included	offices, support spaces for veterans, bike storage and parking on ground level, public courtyard on the second level
ADDITIONAL INFORMATION	Support services and rehabilitation for disabled veterans.	
SOURCE	www.brooksscarpa.com Images courtesy of © Tara Wucjik (Taken from archdaily.com)	



## *SOS Children's Village, Tadjura*

GENERAL INFO	Architects	Urko Sanchez architects
	Location	Tadjura, Djibouti
	Completion date	2014
AREAS	Storeys	2
	Plot Area(sqm)	2600
	Gross Floor Area(sqm)	-
	Floor Area Ratio (FAR)	-
USE	Number of Residents	15
	Number of Units	15
	Other Functions Included	Narrow streets and squares become playgrounds for children
ADDITIONAL INFORMATION	Conceived as a space for family-strengthening programs of SOS The Children, International.	
SOURCE	urkosanchez.com Images courtesy of © Javier Callejas (Taken from archdaily.com)	



## *A house for artists, London*

GENERAL INFO	Architects	Apparata in collaboration with Grayson Perry
	Location	East London, UK
	Completion date	2020
AREAS	Storeys	5
	Plot Area(sqm)	-
	Gross Floor Area(sqm)	-
	Floor Area Ratio (FAR)	-
USE	Number of Residents	12 artists and their families
	Number of Units	12
	Other Functions Included	studio workspaces, a shared courtyard, and be home to a community hall on the ground floor which also contains a shared kitchen and four work rooms where artists can share studio and desk space.
ADDITIONAL INFORMATION	Long term rental apartments. Project funded by the London Borough of Barking and Dagenham with support from the Mayor of London.	
SOURCE	dezeen.com	



## *Share House LT Josai, Nagoya*

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GENERAL INFO	Architects	Naruse Inokuma Architects
	Location	Nagoya, Japan
	Completion date	2013

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AREAS	Storeys	2
	Plot Area(sqm)	-
	Gross Floor Area(sqm)	307
	Floor Area Ratio (FAR)	-

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USE	Number of Residents	13
	Number of Units	13
	Other Functions Included	-

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ADDITIONAL INFORMATION	Each individual room is a 12,4 m square sized.	
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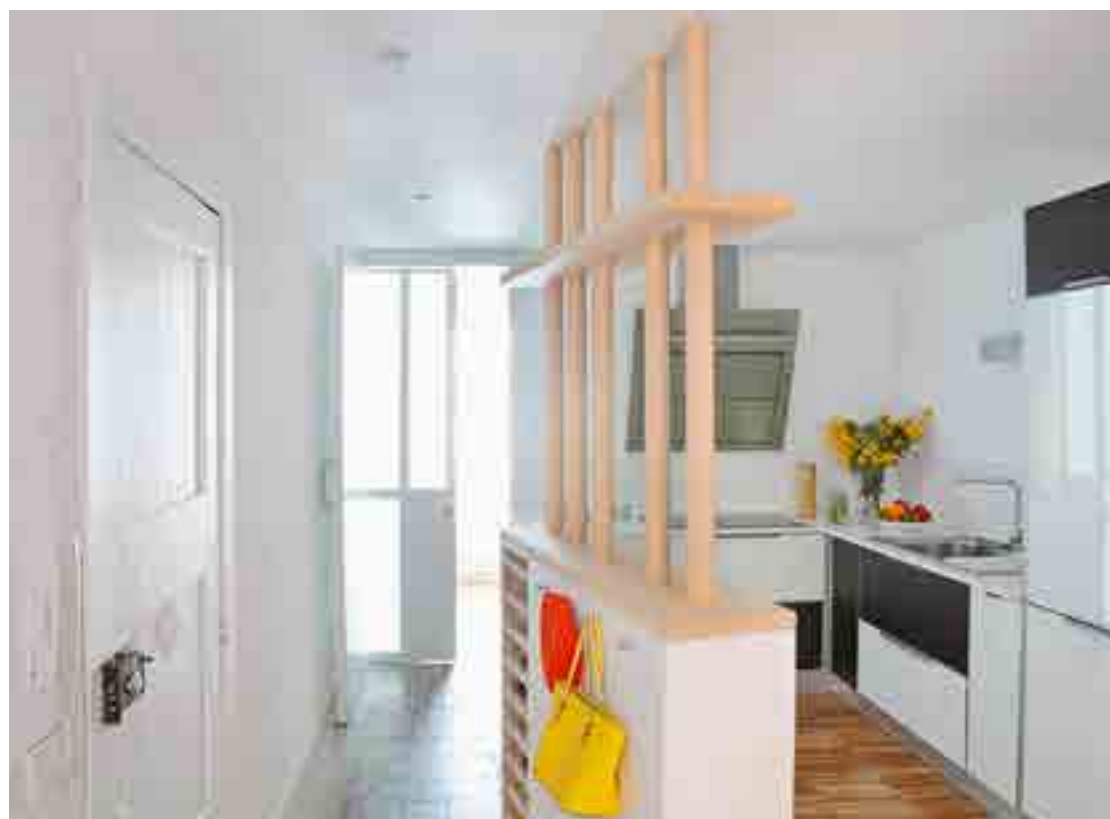
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SOURCE	"LT Josai / Naruse Inokuma Architects" 18 Apr 2014. ArchDaily. Accessed 31 Jan 2019. < <a href="https://www.archdaily.com/497357/lt-josai-naruse-inokuma-architects/">https://www.archdaily.com/497357/lt-josai-naruse-inokuma-architects/</a> > ISSN 0719-8884 Images courtesy of © Masao Nishikawa (Taken from archdaily.com)	
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## *Apartment for Shared Micro Living, Barcelona*

GENERAL INFO	Architects	Miel Arquitectos and Studio P10
	Location	Barcelona, Spain
	Completion date	2014
AREAS	Storeys	1
	Plot Area(sqm)	-
	Gross Floor Area(sqm)	65
	Floora Area Ration (FAR)	-
USE	Number of Residents	2
	Number of Units	1
	Other Functions Included	-
ADDITIONAL INFORMATION	Cost per sqm; 1230 euros.	
SOURCE	"SALVA46 / MIEL Arquitectos + STUDIO P10 " 04 Aug 2014. ArchDaily. Accessed 31 Jan 2019. < <a href="https://www.archdaily.com/531406/salva46-miel-arquitectos-studio-p10/">https://www.archdaily.com/531406/salva46-miel-arquitectos-studio-p10/</a> > ISSN 0719-8884 Images courtesy of © Asier Rua (Taken from archdaily.com)	



## *Yokohama Apartments, Yokohama*

GENERAL INFO	Architects	ON Design Partners
	Location	Yokohama, Kanagawa, Japan
	Completion date	2009
AREAS	Storeys	2
	Plot Area(sqm)	152
	Gross Floor Area(sqm)	183
	Floor Area Ratio (FAR)	1,2
USE	Number of Residents	4 to 11
	Number of Units	4
	Other Functions Included	On the ground floor; semi-public common area that serves as a studio for working and exhibiting, a space for performances, lectures and workshops and a communal living room for cooking and socializing.
ADDITIONAL INFORMATION	Total floor area of residential spaces; 111 sqm, of communal spaces; 72sqm.	
SOURCE	"Yokohama Apartment / ON design partners" 17 Dec 2012. ArchDaily. Accessed 31 Jan 2019. < <a href="https://www.archdaily.com/303401/yokohama-apartment-on-design-partners/">https://www.archdaily.com/303401/yokohama-apartment-on-design-partners/</a> > ISSN 0719-8884 Images courtesy of © Koichi Torimura (Taken from archdaily.com)	



*Moriyama House, Tokyo*

GENERAL INFO	Architects	Ryue Nishizawa
	Location	Tokyo, Japan
	Completion date	2005
AREAS	Storeys	2-3
	Plot Area(sqm)	423
	Gross Floor Area(sqm)	263
	Floor Area Ratio (FAR)	0,62
USE	Number of Residents	-
	Number of Units	-
	Other Functions Included	Small gardens that take the place of corridors.
ADDITIONAL INFORMATION	Total floor area of residential spaces; 263 sqm, of communal spaces; 160 sqm.	
SOURCE	Images courtesy of Edmund Sumner (Taken from dezeen.com)	



## *Apartments With a Small Restaurant, Tokyo*

GENERAL INFO	Architects	Naka Architects' Studio
	Location	Tokyo, Japan
	Completion date	2014
AREAS	Storeys	3
	Plot Area(sqm)	-
	Gross Floor Area(sqm)	261
	Floor Area Ratio (FAR)	-
USE	Number of Residents	9 +6 people in shared office
	Number of Units	5 SOHO units (small-office-home-office)
	Other Functions Included	A small restaurant on the ground floor and a co-working space in the basement. The undefined communal space whipped around the building works also as distribution and houses shared facilities like washing machine and grill.
ADDITIONAL INFORMATION	Total floor area of residential spaces; 162 sqm, of communal spaces; 90 sqm. Cost per sqm; 7765 euros.	
SOURCE	Information, diagrams and pictures courtesy of Naka Architects Studio (Taken from Nakastudio.com)	



## *Share House in Tokyo*

GENERAL INFO	Architects	Satoko Shinohara/ Spatial Design Studio and Ayano Uchimura/A Studio
	Location	Tokyo, Japan
	Completion date	-
AREAS	Storeys	3
	Plot Area(sqm)	128,6
	Gross Floor Area(sqm)	184.27
	Floor Area Ratio (FAR)	1,43
USE	Number of Residents	7
	Number of Units	-
	Other Functions Included	Workshop and common areas.
ADDITIONAL INFORMATION	Total floor area of residential spaces; 162 sqm, of communal spaces; 90 sqm. Cost per sqm; 7765 euros.	
SOURCE	inspiration.detail.de Taro Hirano, Tokio. (Taken from inspiration.detail.de)	



## *Stacked Student Housing, Karnataka*

GENERAL INFO	Architects	Thirdspace Architecture Studio
	Location	Belagavi, Karnataka, India
	Completion date	2017
AREAS	Storeys	5
	Plot Area(sqm)	100
	Gross Floor Area(sqm)	370
	Floor Area Ratio (FAR)	3,7
USE	Number of Residents	29
	Number of Units	-
	Other Functions Included	Semi private spaces and common areas with lobby pantry and toilet facilities.
V ADDITIONAL INFORMATION	Total floor area of residential spaces; 162 sqm, of communal spaces; 90 sqm. Cost per sqm; 7765 euros.	
SOURCE	"Stacked Student Housing / Thirdspace Architecture Studio" 09 Nov 2017. ArchDaily. Accessed 31 Jan 2019. < <a href="https://www.archdaily.com/883227/stacked-student-housing-thirdspace-architecture-studio/">https://www.archdaily.com/883227/stacked-student-housing-thirdspace-architecture-studio/</a> > ISSN 0719-8884 Images by Hemant Patil.	



# LARGE- SCALE CO-LIVING

*The case studies in this section are examples of shared living, mostly called co-living (deriving from collective living) proposed by private companies. They have a strong brand and effective administrative and organizational systems. However, they are mostly repositions of already existing archetypes.*



*Common. Apartment in Havemeyer, Williamsburg*

GENERAL INFO	Architects	Desgin team of the company.
	Location	Havemeyer, Williamsburg
	Completion date	-
AREAS	Storeys	1
	Plot Area(sqm)	-
	Gross Floor Area(sqm)	-
	Floora Area Ration (FAR)	-
USE	Number of Residents	4-8
	Number of Units	4
	Other Functions Included	Movie room and wellness studio, exclusive.
SERVICES	Wifi, laundry, weekly cleaning, households supplies, furnishings, community happenings, member support services 24/7 including maintenance.	
B R A N D I N G PITCH	"Coliving is city living made better."	
	"Living at Common means you're always invited and never obligated."	
"WHAT WE DO"	"Common is a property management company that enters into long-term management agreements with real estate developers and investors to operate their properties.	
RAMIFICATION	5 apartments in New York City, 2 apartments in Los Angeles, 2 apartments in San Francisco, 3 apartments in Chicago, 2 apartments in Washington DC, and 2 apartments in Seattle.	
SOURCE	<a href="https://www.common.com/">https://www.common.com/</a>	



## *WeLive, Crystal City*

GENERAL INFO	Architects	AREA xA
	Location	Washington, DC
	Completion date	2016
AREAS	Storeys	1
	Plot Area(sqm)	-
	Gross Floor Area(sqm)	18.580
	Floor Area Ratio (FAR)	-
USE	Number of Residents	Units vary from studios to 4 bedroom shares.
	Number of Units	216
	Other Functions Included	WeWork offices on top floors, and a restaurant, bar and event spaces on the ground floor, and outdoor lounge, picnic area and vegetable gardens.
SERVICES	Kitchen, communal rooms, dining area, coffee nooks, silent rooms, lounge in each "neighborhood", plus one of the following: laundry arcade, solarium/meditation space, study/library.	
BRANDING PITCH	"City living how it should be."	
	"We are: allergic to the unoriginal, unbound by convention, opposed to the 9 to 5, inspired by independence, open to adventure, and firm believers that we're only as good as the people with whom we surround ourselves. We are WeLive."	
"WHAT WE DO"	"Our mission is to transform the rigid and isolating housing model of yesterday into a flexible and community-driven experience for today."	
RAMIFICATION	Another building in Wall Street, New York City.	
SOURCE	<a href="http://are-a.net/projects/welive-dc/">http://are-a.net/projects/welive-dc/</a> and <a href="https://www.welive.com/about/">https://www.welive.com/about/</a>	



## *The Collective, Old Oak*

GENERAL INFO	Architects	PLP Architecture
	Location	London
	Completion date	2016
AREAS	Storeys	11
	Plot Area(sqm)	-
	Gross Floor Area(sqm)	16.000
	Floor Area Ratio (FAR)	-
USE	Number of Residents	546
	Number of Units	546
	Other Functions Included	Restaurants and a co-working space with an incubator for young start-ups.
SERVICES	Communal kitchens, games room, spa, secret garden, cinema, library and laundrette.	
B R A N D I N G PITCH	"Live somewhere that's home, and so much more." "Our mission is simple. We want to build a connected and more inspired world that's more alive, more together and more collaborative."	
"WHAT WE DO"	"We create places for people to live, work and play. Our homes and workspaces are designed to help people live happier, fuller lives, learning and growing as part of a engaged community."	
RAMIFICATION	In the future, another building in Stratford, London.	
SOURCE	<a href="http://are-a.net/projects/welive-dc/">http://are-a.net/projects/welive-dc/</a> and <a href="https://www.welive.com/about/">https://www.welive.com/about/</a>	



*Outpost Club, The East-Bushwick House, Brooklyn*

GENERAL INFO	Architects	-
	Location	Brooklyn, New York City
	Completion date	-
AREAS	Storeys	1
	Plot Area(sqm)	-
	Gross Floor Area(sqm)	-
	Floor Area Ratio (FAR)	-
USE	Number of Residents	From 11-30
	Number of Units	Multiple apartments in one building, multiple units.
	Other Functions Included	None. But membership allows to move between houses in different locations.
SERVICES	Three kitchens, a basement living room and co-working space.	
B R A N D I N G PITCH	"We are passionate about making finding housing easy."	
"WHAT WE DO"	"Our mission is to build a tight-knit community with shared passions and visions, thereby making the world we live in a better place."	
RAMIFICATION	Eight houses in New York City.	
SOURCE	<a href="https://outpost-club.com/our-houses">https://outpost-club.com/our-houses</a>	



## ROAM, Tokyo location

GENERAL INFO	Architects	-
	Location	Tokyo, Japan
	Completion date	-
AREAS	Storeys	-
	Plot Area(sqm)	-
	Gross Floor Area(sqm)	-
	Floor Area Ratio (FAR)	-
USE	Number of Residents	-
	Number of Units	20 rooms.
	Other Functions Included	-
SERVICES	CO-working space, meeting rooms, circus themed workout and Yoga room	
B R A N D I N G	"Make this life a wonderful adventure."	
PITCH	"Roam Together. Show up and find community anywhere."	
"WHAT WE DO"	"Roam is a network of global coliving spaces that provide everything you need to feel at home and be productive the moment you arrive."	
RAMIFICATION	Locations in San Francisco, London, Bali, Miami and Tokyo	
SOURCE	<a href="https://www.roam.co/places/tokyo">https://www.roam.co/places/tokyo</a>	



# SINGLE FAMILY HOUSES

*The case studies in this section are designed for one family, however that hold qualities and concepts that can be useful in the design of shared spaces. In all of these projects, a family is thought of as a group, as a community and the architects were able to overcome certain conventional presets of family and apartment living.*

*House Before House, Tochigi*  
*House NA, Tokyo*  
*House H, Tokyo*  
*Small House, Tokyo*  
*Green Tower, Tokyo*  
*Light Walls House, Toyokawa*  
*Unfinished House, Kashima*  
*House T, Tokyo*

## *House Before House, Tochigi*

GENERAL INFO	Architects	Sou Fujimoto Architects
	Location	ToCHIGI, Japan
	Completion date	2008
AREAS	Storeys	2
	Plot Area(sqm)	-
	Gross Floor Area(sqm)	163
	Floora Area Ration (FAR)	-
USE	Number of Residents	4
	Number of Units	1
	Other Functions Included	-
OBSERVATIONS BY OTHERS	"His (Fujimoto's) "House Before House" piles barely room-size residential cubes into an artificial rock, puts trees in between and gets the occupants to climb, as it were, through the branches of a tree. This house intensifies sensory perception: it brings nature into the city and turns the home quite literally into a living landscape." Niklas Maak in Living Complex, "Different Houses."	
SOURCE	kienviet.net inspiration.detail.de	



## House NA, Tokyo

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GENERAL INFO	Architects	Sou Fujimoto Architects
	Location	Tokyo, Japan
	Completion date	2011

---

AREAS	Storeys	3 storey high, 21 levels
	Plot Area(sqm)	-
	Gross Floor Area(sqm)	84
	Floor Area Ratio (FAR)	-

---

USE	Number of Residents	2
	Number of Units	1
	Other Functions Included	-

---

ARCHITECT'S WORDS	"The intriguing point of a tree is that these places are not hermetically isolated but are connected to one another in its unique relativity. To hear one's voice from across and above, hopping over to another branch, a discussion taking place across branches by members from separate branches. These are some of the moments of richness encountered through such spatially dense living."
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SOURCE	"House NA / Sou Fujimoto Architects" 30 Apr 2012. ArchDaily. Accessed 31 Jan 2019. < <a href="https://www.archdaily.com/230533/house-na-sou-fujimoto-architects/">https://www.archdaily.com/230533/house-na-sou-fujimoto-architects/</a> > ISSN 0719-8884 domus.com dezeen.com Pictures by © Iwan Baan (Taken from archdaily.com)
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## House H, Tokyo

---

GENERAL INFO	Architects	Sou Fujimoto Architects
	Location	Tokyo, Japan
	Completion date	2008

---

AREAS	Storeys	3
	Plot Area(sqm)	72,28
	Gross Floor Area(sqm)	125
	Floor Area Ratio (FAR)	1,72

---

USE	Number of Residents	3
	Number of Units	1
	Other Functions Included	-

---

ARCHITECT'S WORDS	"Using artificial materials and geometric order, the succession of voids in connectivity engenders a greater field of relationships. This concept of a residence akin to a large tree, with a tree-like ambiguity in its connectivity with the exterior, propounds a prototypical dwelling/city of the future."
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SOURCE	"House H / Sou Fujimoto Architects" 06 Dec 2011. ArchDaily. Accessed 31 Jan 2019. < <a href="https://www.archdaily.com/188814/house-h-sou-fujimoto/">https://www.archdaily.com/188814/house-h-sou-fujimoto/</a> > ISSN 0719-8884 Pictures by © Iwan Baan (Taken from archdaily.com)
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# *Small House, Tokyo*

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GENERAL INFO	Architects	Kazuyo Sejima
	Location	Tokyo, Japan
	Completion date	2000

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AREAS	Storeys	4
	Plot Area(sqm)	-
	Gross Floor Area(sqm)	-
	Floora Area Ration (FAR)	-

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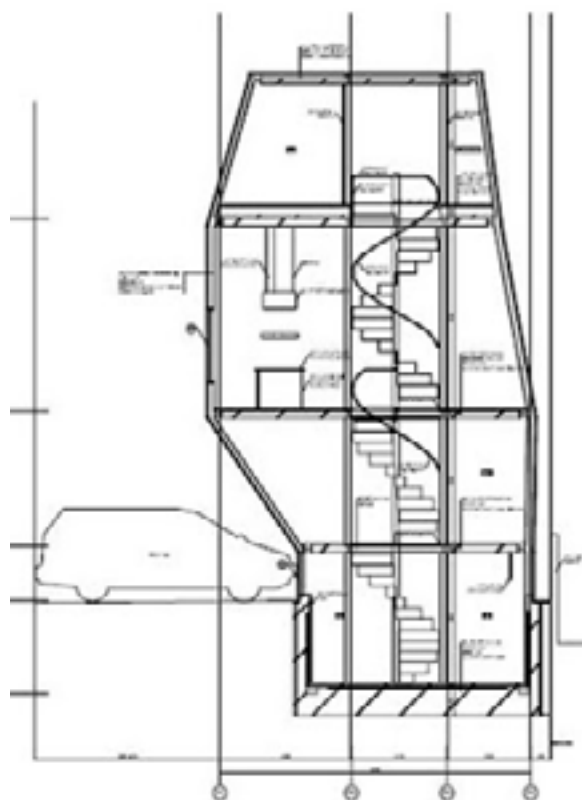
USE	Number of Residents	-
	Number of Units	1
	Other Functions Included	-

---

ARCHITECT'S  
WORDS -

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SOURCE      wikiarquitectura.com  
                 Pictures taken from busyboo.com



## *Green Tower, Tokyo*

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GENERAL INFO	Architects	Ryue Nishizawa
	Location	Tokyo, Japan
	Completion date	2009

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AREAS	Storeys	5
	Plot Area(sqm)	32
	Gross Floor Area(sqm)	90
	Floor Area Ratio (FAR)	2,81

---

USE	Number of Residents	-
	Number of Units	1
	Other Functions Included	Living and Working

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ARCHITECT'S WORDS	"My final decision of structure consisted of a vertical layer of horizontal slabs to create a building without walls." "The occupants can feel the wind and live in a space that is outside, yet wholly intimate."
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SOURCE	Wohnkonzepte Housing in Japan, Schittich Pictures by Iwan Baan, Amsterdam (Taken from <a href="http://dezeen.com">dezeen.com</a> )
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## *Light Walls House, Toyokawa*

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GENERAL INFO	Architects	mA-style Architects
	Location	Toyokawa, Japan
	Completion date	2013

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AREAS	Storeys	2
	Plot Area(sqm)	266,24
	Gross Floor Area(sqm)	82,8
	Floor Area Ratio (FAR)	0,31

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USE	Number of Residents	4
	Number of Units	1
	Other Functions Included	-

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### ARCHITECT'S WORDS

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SOURCE	"Light Walls House / mA-style Architects" 05 Oct 2013. ArchDaily. Accessed 31 Jan 2019. < <a href="https://www.archdaily.com/433260/light-walls-house-ma-style-architects/">https://www.archdaily.com/433260/light-walls-house-ma-style-architects/</a> > ISSN 0719-8884 Pictures by Kai Nakamura (Taken from archdaily.com)
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## *Unfinished House, Kashiwa*

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GENERAL INFO	Architects	Yamazaki Kentaro Design Workshop
	Location	Kashiwa-shi, Chiba Prefecture
	Completion date	2014

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AREAS	Storeys	2
	Plot Area(sqm)	182,69
	Gross Floor Area(sqm)	107,63
	Floor Area Ratio (FAR)	0,58

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USE	Number of Residents	1 family
	Number of Units	1
	Other Functions Included	-

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ARCHITECT'S WORDS	"A "container" that changes as you design and live in it."
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SOURCE	<i>Japanese Contemporary House</i> by Sordelli and Zanoni ykdw.org Pictures by Naoomi Kurozumi
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## House T, Tokyo

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GENERAL INFO	Architects	Hiroyuki Shinozaki Architects
	Location	Tokyo, Japan
	Completion date	20142

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AREAS	Storeys	2
	Plot Area(sqm)	70,31
	Gross Floor Area(sqm)	76,62
	Floora Area Ration (FAR)	1,089

---

USE	Number of Residents	2
	Number of Units	1
	Other Functions Included	Living and office.

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ARCHITECT'S WORDS	"In massive volume of the box, each different activity of daily living is took place at each floor with open view. Lightings hung from top of the box till the each floors to illuminate them such as a floating stage."
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SOURCE	<i>Japanese Contemporary House</i> by Sordelli and Zanoni "HouseT / Hiroyuki Shinozaki Architects" 16 Aug 2012. ArchDaily. Accessed 31 Jan 2019. < <a href="https://www.archdaily.com/262143/houset-hiroyuki-shinozaki-architects/">https://www.archdaily.com/262143/houset-hiroyuki-shinozaki-architects/</a> > ISSN 0719-8884 Pictures by Hiroyasu Sakaguti
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# BIBLIOGRAPHY

## *Chapter 2*

Adkins, Amy. "Millennials: The Job-Hopping Generation." *Gallup*, May 12, 2016. <http://news.gallup.com/businessjournal/191459/millennials-job-hopping-generation.aspx>. Last accessed May 4, 2018.

Allison, Tom and Mugglestone, Konrad. "The Future of Millennial Jobs." *Young Invincibles*, January 20, 2015.

Aureli, Pier Vittorio & Tattara, Martino. "Production/Reproduction: Housing beyond the Family". *Harvard Design Magazine*, no.41, Fall/Winter 2015.  
<http://www.harvarddesignmagazine.org/issues/41/production-reproduction-housing-beyond-the-family>

Beaton, Caroline. "Why Millennials Are Lonely." *Forbes*, February 9, 2017. <https://www.forbes.com/sites/carolinebeaton/2017/02/09/why-millennials-are-lonely/#10c2cddc7c35>. Last accessed May 4, 2018.

Broberg, Brad. "2017 Community Survey" *On Common Ground: Winter 2017*: 4-7. [http://www.oncommonground-digital.org/oncommonground/winter\\_2017\\_walkable\\_neighborhoods?pg=1#pg1](http://www.oncommonground-digital.org/oncommonground/winter_2017_walkable_neighborhoods?pg=1#pg1). Last accessed May 4, 2018.

Broberg, Brad. "Affordable Walkability." *On Common Ground: Winter 2017*: 40-45. [http://www.oncommonground-digital.org/oncommonground/winter\\_2017\\_walkable\\_neighborhoods?pg=1#pg1](http://www.oncommonground-digital.org/oncommonground/winter_2017_walkable_neighborhoods?pg=1#pg1). Last accessed May 4, 2018.

Broberg, Brad. "The Walkable Demand." *On Common Ground: Winter 2017*: 18-23. [http://www.oncommonground-digital.org/oncommonground/winter\\_2017\\_walkable\\_neighborhoods?pg=1#pg1](http://www.oncommonground-digital.org/oncommonground/winter_2017_walkable_neighborhoods?pg=1#pg1). Last accessed May 4, 2018.

Broberg, Brad, "Where Are The New Jobs Going?" *On Common Ground: Summer 2015*: 4-6. [https://www.nar.realtor/sites/default/files/migration\\_files/publications/2015/2015-summer-on-common-ground.pdf](https://www.nar.realtor/sites/default/files/migration_files/publications/2015/2015-summer-on-common-ground.pdf). Last accessed May 4, 2018.

Deloitte. "The Deloitte Millennial Survey 2017. Apprehensive millennials: seeking stability and opportunities in an uncertain world." 2017. <https://www2.deloitte.com/na/en/pages/about-deloitte/articles/millennialsurvey.html>. Last accessed March 15, 2018.

Eckert, Gina and Deal, Jenifer. "A European Perspective on Millennials." first published in *Developing Leaders*, 6, January 2012. <https://www.iedp.com/articles/a-european-perspective-on-millennials/>. Last accessed March 15, 2018.

Filisko, G.M. "How Millennials Move: The Car-Less Trend." *On Common Ground: Summer 2012*: 18-23. [https://www.nar.realtor/sites/default/files/migration\\_files/on-common-ground-07-2012-communities-for-all-generations.pdf](https://www.nar.realtor/sites/default/files/migration_files/on-common-ground-07-2012-communities-for-all-generations.pdf). Last accessed May 4, 2018.

Frey, William H. ed. "The Millennial Generation: A Demographic Bridge To America's Diverse Future." *Brookings Metropolitan Policy Program*, January 2018. [https://www.brookings.edu/wp-content/uploads/2018/01/2018-jan\\_brookings-metro\\_millennials-a-demographic-bridge-to-americas-diverse-future.pdf](https://www.brookings.edu/wp-content/uploads/2018/01/2018-jan_brookings-metro_millennials-a-demographic-bridge-to-americas-diverse-future.pdf). Last accessed May 4, 2018.

Fry, Richard. "Millennials aren't job-hopping any faster than Generation X did." *Pew Research Center*, April 19, 2017. <http://www.pewresearch.org/fact-tank/2017/04/19/millennials-arent-job-hopping-any-faster-than-generation-x-did/>. Last accessed May 4, 2018.

Fry, Richard. "Americans are moving at historically low rates, in part because Millennials are staying put." *Pew Research Center*, February 13, 2017. <http://www.pewresearch.org/fact-tank/2017/02/13/americans-are-moving-at-historically-low-rates-in-part-because-millennials-are-staying-put/>. Last accessed May 4, 2018.

Fry, Richard. "5 facts about Millennial households." *Pew Research Center*, September 6, 2017. <http://www.pewresearch.org/fact-tank/2017/09/06/5-facts-about-millennial-households/>. Last accessed May 4, 2018.

Fry, Richard. "Millennials projected to overtake Baby Boomers as America's largest generation." *Pew Research Center*, March 1, 2018. <http://www.pewresearch.org/fact-tank/2018/03/01/millennials-overtake-baby-boomers/>. Last accessed May 4, 2018.

Heller, Nathan. "Is the Gig Economy Working? Many liberals have embraced the sharing economy. But can they survive it?" *The New Yorker*, May 15, 2017. <https://www.newyorker.com/magazine/2017/05/15/is-the-gig>

economy-working?irgwc=1&utm\_medium=VigLink&utm\_campaign=Online%20Tracking%20Link&utm\_source=IR. Last accessed March 15, 2018.

International Labour Organization. "World Employment and Social Outlook 2015: The Changing Nature of Jobs". May 19, 2015.

Jivon Jung, Susik Yoon, SeungHyun Kim, SangKeun Park, Kun-Pyo Lee, and Uichin Lee. "Social or Financial Goals?: Comparative Analysis of User Behaviors in Couchsurfing and Airbnb." In *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems*, pp. 2857-2863. ACM, 2016.

Jones, Gill. "Experimenting with households and inventing 'home'." *International Social Science Journal* 52, no. 164 (2000): 183-194.

Jones, Gill. *Leaving home*. Buckingham: Open University Press, 1995.

Lessig, Lawrence. *Remix: Making Art and Commerce Thrive in the Hybrid Economy*. Penguin Books, 2008.

Lowrey, Annie. "What the Gig Economy Looks Like Around The World: An Oxford professor talks about the costs and benefits of digital freelance work." *The Atlantic*, April 13, 2017. <https://www.theatlantic.com/business/archive/2017/04/gig-economy-global/522954/>. Last accessed March 15, 2018.

Maak, Niklas. *Living Complex: From Zombie City to the New Communal*. Translated by Bram Opstelten. Munich: Hirmer, 2015.

McPherson, Miller, Lynn Smith-Lovin, and Matthew E. Brashears. "Social isolation in America: Changes in core discussion networks over two decades." *American sociological review* 71, no. 3 (2006): 353-375.

"Millennials: A Portrait of Generation Next." *Pew Research Center*, 2010. <http://assets.pewresearch.org/wp-content/uploads/sites/3/2010/10/millennials-confident-connected-open-to-change.pdf>. Last accessed May 6, 2018.

"Millennials – Changing the Face of Higher Education." *The Pacific Institute*. <http://educationinitiative.thepacificinstitute.com/articles/story/millennials-changing-the-face-of-higher-education>. Last accessed May 4, 2018.

"Millennials On Track to be the Most Educated Generation to Date." *Pew Research Center*, March 17, 2015.

[http://www.pewresearch.org/fact-tank/2018/03/16/how-millennials-compare-with-their-grandparents/ft\\_millennials-education\\_031715/](http://www.pewresearch.org/fact-tank/2018/03/16/how-millennials-compare-with-their-grandparents/ft_millennials-education_031715/). Last accessed May 4, 2018.

"Millennial Preferences For Real Estate – Where Are Millennials Going?" *RCLCO*, January 13, 2016. <http://www.rclco.com/pub/doc/presentation-2016-01-13-logan-gregg-uli-millennials.pdf>. Last accessed March 23, 2018.

Myers, Dowell. "Peak millennials: three reinforcing cycles that amplify the rise and fall of urban concentration by millennials." *Housing Policy Debate* 26, no. 6 (2016): 928-947.

"Nearly One-Third of Employers Expect Workers to Job-Hop." *CareerBuilder*, May 15, 2014. <https://www.careerbuilder.com/share/aboutus/pressreleasesdetail.aspx?sd=5%2F15%2F2014&id=pr824&ed=12%2F31%2F2014>. Last accessed May 4, 2018.

OneSharedHouse2030. "Results." Last accessed March 02, 2018. <http://onesharedhouse2030.com/results/>

O'Sullivan, Feargus. "Mapping Where Europe's Population Is Moving, Aging, and Finding Work." *Citylab*, September 27, 2017. <https://www.citylab.com/life/2017/09/european-demographics-aging-employment-migration/540084/>. Last accessed March 15, 2018.

Raum, Tom. "Temporary jobs on rise in today's shifting economy." *Washington Examiner*, May 19, 2014. <https://www.washingtonexaminer.com/temporary-jobs-on-rise-in-todays-shifting-economy>. Last accessed March 15, 2018.

"Research Reveals the Driving Force behind American Employees and Their Career Choices." *Cornerstone OnDemand*, March 23, 2016. <https://www.cornerstoneondemand.com/company/news/press-releases/research-reveals-driving-force-behind-american-employees-and-their-career>. Last accessed May 4, 2018.

Sanghani, Radhika. "Generation Lonely: Britain's young people have never been less connected." *The Telegraph*, December 28, 2014. <https://www.telegraph.co.uk/women/womens-life/11312075/Generation-Lonely-Britains-young-people-have-never-been-less-connected.html>. Last accessed May 4, 2018.

Sassen, Saskia. *Expulsions: Brutality and complexity in the global economy*. Harvard University Press, 2014.

Schewe, Charles D., Kathleen Debevec, Thomas J. Madden, William D. Diamond, Anders Parment, and Andrew Murphy. "'If You've Seen One, You've Seen Them All!' Are Young Millennials the Same Worldwide?" *Journal of international consumer*

marketing 25, no. 1 (2013): 3-15.

Shearmur, Richard. "The millennial urban space-economy: Dissolving workplaces and the de-localization of economic value-creation." In *Millennial City*, 81-96. Routledge, 2017.

Space10, "Why co-living will matter even more on our increasingly urban planet." *Shared Living Lab*, November 10, 2017. <https://medium.com/shared-living/could-co-living-be-the-solution-to-the-more-alarming-consequences-of-our-increasingly-urban-planet-76330a211b1a>. Last accessed May 4, 2018.

Space Caviar ed., *SQM: The Quantified Home*. Lars Müller Publishers, 2014.

Statista: The Statistics Portal. "Most popular daily online activities of adult internet users in the United States as of February 2017, by age group." <https://www.statista.com/statistics/184541/typical-daily-online-activities-of-adult-internet-users-in-the-us/>. Last accessed May 4, 2018.

Statista: The Statistics Portal. "Statistics and Market Data on Online Demographics & Use." <https://www.statista.com/markets/424/topic/537/demographics-use/>. Last accessed May 4, 2018.

Stokes, Bruce. "Who are Europe's Millennials?" *Pew Research Center*, February 9, 2015. <http://www.pewresearch.org/fact-tank/2015/02/09/who-are-europes-millennials/>. Last accessed May 4, 2018.

Taylor, Paul, Kim Parker, Rakesh Kochhar, Richard Fry, Cary Funk, Eileen Patten, and Seth Motel. "Young, underemployed and optimistic: Coming of age, slowly, in a tough economy." *Pew Research Center*, 2012.

"The Impact of Gen Y on Housing - The Market and Demographic Perspective." *RCLCO*, July 23, 2013. <http://www.rclco.com/pub/doc/presentation-2013-07-23-APA-Virginia-Annual-Planning-Conference.pdf>. Last accessed May 23, 2018.

"The Whys and Hows of Generations Research." *Pew Research Center*, September 3, 2015. <http://www.people-press.org/2015/09/03/the-whys-and-hows-of-generations-research/>. Last accessed May 4, 2018.

Thompson, Derek. "Adulthood Delayed: What Has the Recession Done to Millennials?" *The Atlantic*, February 14, 2012. <https://www.theatlantic.com/business/archive/2012/02/adulthood-delayed-what-has-the-recession->

done-to-millennials/252913/. Last accessed May 4, 2018.

Timmerman, Katherine. "Millennials and home: understanding the needs of the millennial generation in their living environment." PhD diss., The Florida State University, 2015.

"US and European Millennials Differ on their views of fate, future." *Pew Research Center*, February 10, 2015. <http://www.pewresearch.org/fact-tank/2015/02/10/u-s-and-european-millennials-differ-on-their-views-of-fate-future/>. Last accessed May 4, 2018.

Van Boven, Leaf, and Thomas Gilovich. "To do or to have? That is the question." *Journal of Personality and Social Psychology* 85, no. 6 (2003): 1193-1202.

"What's Next? Getting Ahead of Change." *Urban Land Institute (ULI)*, Washington, D.C., 2012. [http://uli.org/wp-content/uploads/ULI-Documents/WhatsNext\\_2012.pdf](http://uli.org/wp-content/uploads/ULI-Documents/WhatsNext_2012.pdf). Last accessed March 27, 2018.

"World urbanization prospects: The 2014 revision, highlights." *United Nations*, 2014. ISBN 978-92-1-151517-6

Yao, Mike Z., and Zhi-Jin Zhong. "Loneliness, social contacts and Internet addiction: A cross-lagged panel study." *Computers in Human Behavior* 30 (2014): 164-170.

## Chapter 3.

## *Concepts for Sharing*

In this chapter, the questions raised in the first two chapters through historical research and demographic surveys, is brought within the field of architecture. This study aims to help precipitate an architectural discourse that questions the forms that the current social structure can give to our living environment. This work can be considered as an attempt to provoke further investigations on this broad topic, by bringing forward a suggestion of references that have the potential to offer non-conventional points of view on the matter.

These references are chosen from around the world, based on one condition; they are potentially speculative models for a habitation that differentiate from the conventional frame of living spaces and allow new forms of existence. These case studies are not necessarily collective living projects, since they are used to offer an alternative to the recent examples of the concept. They aim to collect references that suggest a shift in the acquired meanings of architectural elements in

order to make way for new ones. When something we take for granted suddenly disappears, we question and realize it. This is what I hope to do with this study; challenge the deeply rooted assumptions about the space of dwelling and explore the results of this shift. I do not intend to give new meanings or rules, but I do believe this provocation has the potential to create the ground for new ways to be born. In order to do so, the methodologies of several architects are studied. This study is pursued by readings and case study analyses that are knotted together. In order to clearly communicate the results of the research, I will start by introducing the philosophy of the protagonists of this chapter, and then explain the concepts that emerge from their theories, together with case studies that demonstrate these concepts in practice. For many reasons are further explained in the following pages, some of the contemporary Japanese single-family houses that hold the above-mentioned characteristics make up the majority of the case

studies that are studied in this chapter. However, this is not a research on Japanese houses.

What is in common to all the reference architects in this chapter is the fact that each of them has invented a vocabulary in order to explain the 'immaterial' aspects of architecture, and their vocabularies include many words such as 'personal,' 'impressions,' 'feelings,' etc. This is because they are all in search of something beyond the perception, beyond the material. This search originates in a realization common to all these architects; that architecture is space and that space is relationships (of forms, of materials and so on). What fuels their studies is their belief that such intrinsic thus highly unspoken aspects of architecture can indeed be studied and broken down into methods, all the while admitting that such methods will not be static, constantly evolving. This chapter aims to have a brief look into the thoughts and methods of several architects that approach such matters from various directions.

*The Japanese Experience*

*“One of the most interesting aspects of this Japanese work — aside from its often exceptional quality — is the way which it simply abandons all the sociological and technological preoccupations that were a fundamental theoretical tenet of modernism through most of the 20th century. their place is a blend of esthetics and philosophy in which the eye, and the idea, are all that count. Gone is the space7 age technology of the Japanese Metabolists of the 1960’s (although some of these architects span both movements) which whole cities were proposed for Tokyo Bay and megastructures and capsules assaulted the landscape. What being done now is almost hermetically personal, combining complex elements of Eastern and Western practice and philosophy. This work contains historicism, mysticism and irony.”*

*Ada Louise Huxtable, in New York Times,  
Jan 14, 1979.*

Especially in the West, while 'freedom or socialism' was a controversy that governed the ideals during the 20th century, it also affected the ideals of residential architecture, creating a critical view toward the shared housing and collective living and strengthen the propaganda for nuclear family living. However, as observed by Maak in Living Complex as well, in the recent years architects, especially in Japan, have started to transcend such ideological limitations and to design collective living spaces where the right to privacy, withdrawal and the personal is successfully enforced, thereby dissolving the necessity to choose either privacy or community.<sup>1</sup> There is a reason to believe that the traditional Japanese culture of living has played an important part in the creation of such collective living projects today. With elements such as engawa that dissolves boundaries between inside and outside, and replacing the 'wall with a door', with a filter of multiple layers; elements like shoji

which provoke the inhabitant to constantly interpret and appropriate his own living space by choosing to include or to exclude the engawa; the volatile nature of the location of the bed which belongs to a state of being, rather than to a room, Japanese tradition of living has many concepts that could help explore new forms of living.

However, the tradition is not the only explanation behind Japan's current pioneering role in residential architecture.

Having nonetheless participated in the American style single-family living especially following the Second World War, and in the large scale urban manifesto currents of the time, Japanese architecture has had the awareness to realize the need for a return to its own nature. Yoshiharu Tsukamoto (the architect, theoretician and head of the architectural firm Atelier Bow-Wow) is one of the Japanese architects who have written a manifesto for post-familial housing. In his article in Arch+<sup>2</sup>, he points out that since the American

2. "Void metabolism" by Tsukamoto, published on August 2012, in Arch+.

style single family residential buildings started to be built in Japan in the 1920s, the family has increasingly closed itself to the community, and large amounts of money were spent for furnishings and real estate loans. He argues that because of such social and economic consequences, "the focus of housing needs to be redirected to communal and collective aspects."<sup>3</sup> What could be the form, the architectural result that such manifestoes could bring forward?

Similar thoughts have led to modern collective housing projects in the West, but the large scale character of such initiatives have led them to become factories for life, more than inviting living spaces. Maak uses the example 'Kollektivhuset' in Stockholm, built in 1935. While trying to free women from the slaving effects of the single-family house by freeing them from cleaning, cooking and laundry duties, it has ended up in a rationalization of each aspect of daily life in order to increase productive efficiency. "There are hardly any nooks that

3. Maak, Living Complex, p.137.

1. Maak, Living Complex, p.133.

one can retreat to and that offer a degree of privacy and comfort; no really attractive place of open hospitality tempting one to enter the micropublic space of house."<sup>4</sup>

So what happened in Japan, especially in Tokyo in order to bring to life the communal living projects that in contrast to modern megastructures, have created more friendly living environments? Despite the widely-known metabolist manifestoes for Tokyo's urban development, and utopian proposals such as Kenzo Tange's plan for Tokyo in 1960, the city of Tokyo has followed a different kind of metabolism, nevertheless maintaining the metabolist mindset that accepted and made proper, the fragile nature of the city due to destructive earthquakes and, with the Second World War, bombings as well. While the metabolist architects envisioned a changing, dynamic city - based on infrastructural cores and individual cells - which suited Tokyo's fragile nature - where the lifespan of a house is 30 years - the large-scale nature

of their urban creations didn't agree with its nature of numerous landowners that are encouraged to construct their own private homes. Through inheritance, each private land was further divided into smaller lands and the number of detached houses augmented to reach an unprecedented level, preventing the commercialization of real estate in the city, especially in the suburbs, that politicians and investors desire.<sup>5</sup> As a result, Tokyo has an immense potential to allow for innovative solutions for housing designs. Niklas Maak has brought forward a similar remark stating that for residential architecture to overcome conventional notions and to experiment toward innovative shared solutions, one of the ideal situations are joint building ventures where people who desire to create their own ideal living environment get together and build their houses, without profitability concerns.<sup>6</sup>

My studies concentrate

5. Yoshiharu Tsukamoto, "Void metabolism," *Architectural Design* 82, no. 5 (2012): 91.

6. Maak, *Living Complex*, p.225.

especially on architects that represent a counter movement to functionalist and modernist trends - mostly, but not limited to, Japan -, and the result of their arguments on architectural theory. Starting from the group of architects that make up the Japanese New wave (Hiromi Fujii, Shinohara, Sakamoto, Toyo Ito), studies go on to discover Western contemporaries that were equally active on the topic, such as Venturi and Eisenman, in order to move on to more recent architects that continue the tradition from their own point of view, such as Sou Fujimoto, Sanaa, Atelier Bow-Wow, etc.

4. Maak, *Living Complex*, p.143.

## *Japanese New Wave*

The members of this New Wave Japanese architecture, a strong counter-culture against the Metabolist movement and Modernism in general, experimented especially with private residence projects.<sup>7</sup> Defined as "a generation of conceptual architects" by Kenneth Frampton in the introduction of the catalogue of an exhibition held in New York, in 1978, these architects represent an architecture where "formal, phenomenological and existential concerns become fused together to expose rather than conceal the true nature of our economic and cultural predicament."<sup>8</sup> Following some of the previous generation architects such as Fumihiko Maki and Arata Isozaki, the younger architects of the New Wave of Japanese architecture depart from the anti-master plan attitude with the idea that there are more

efficient ways to intervene in the megalopolitan domain. Contrary to the rationalist megastructures of the Western urban planning of the last century, they emphasize on the random structure of Japanese towns, and of the "constantly changing nature of the traditional Japanese 'action' street."<sup>9</sup>

This approach is strongly visible, as Frampton puts it; "on mastery over form, and above all on a capacity to synthesize form into an incisive and powerful gestalt,"<sup>10</sup> in various scales of architectural creation, and that is what distinguishes the work of this group from their contemporaries such as American Postmodernists that depart from similar aspirations against the Modernist methods. However, there are parallels that can be made, between the theoretical work and formal experimentations of the Japanese New Wave with that of several Western architects, provoking complex comparisons, for

example with Eisenman's deconstructivist explorations or with Venturi's search for ambiguity.

Even though each member of the group has taken their own method to confront the interior space, there are several signature concepts that are revisited by each. The almost sacred atmosphere of non-religious places, the hierarchy of interior spaces and the 'a box within a box' concept that for the majority of projects govern the interior/exterior relationship, as well as the desire to create an intimacy, sealed-off from the outside through the 'closed box'.

7. Botond Bogнар, "Between Reality and Fiction," in Hiroshi Hara: The 'Floating World' of his Architecture, ed. Botond Bogнар, p.18

8. Kenneth Frampton, "The Japanese New Wave," in A New wave of Japanese architecture, ed. Frampton, p.13.

9. Frampton, "The Japanese New Wave," p.2.

10. Frampton, "The Japanese New Wave," p.5

*Hiromi Fujii  
and Metamorphoses in architecture*

*“The transcendental insures intellectual cognition. It is a meaning which is supported by an objective sense of the appropriate, which in turn constitutes an absolute standard in the context of reality. [...] Before this objective system, our feelings are deprived of all their power. In order to judge the meaning of things in light of criteria prescribed by an objective system, we enclose ourselves in parenthesis; we only seek the cognate of an appropriate objectivity. But meaning can only be obtained in this manner through relinquishing the self.*

*[...] Indeed, the ultimate goal of stripping architecture of its mundane functions lies in this very act of transforming the world, that is, the act of re-inducing the primordial condition of man.”*

*Hiromi Fujii, in “Existential Architecture and the Role of Geometry”*

Hiromi Fujii's conceptualism aimed to 'efface meaning' - with what he defined as quintessential architecture, referring to the inherited meaning, the historic signification that manipulates the relationship between individuals and their surroundings, and that doesn't leave space for subjective interpretation.<sup>11</sup>

### *Metamorphoses*

Fujii conducted experimental studies throughout his career, where he explored transformations of his own projects; formal investigations that were called "metamorphoses". These studies are integral to understanding his built projects. Based on the dimensions and functions of the program, he

recombined and relocated each conventional element that belongs to the house in question, in order to discover new morphologies. "Metamorphology, in my interpretation of the word, has as a goal the production of effects generating meaning,"<sup>12</sup> which, he specifies, does not coincide with producing a good effect. It is obtained through diversification in order to activate perception of the observer, which is deactivated when in contact with established everyday meanings because it becomes something already understood, thus automatic. Fujii stresses that in order to activate the viewer's perception, simply effacing meaning is inefficient, and he insists on the necessity to create a tension "from noncorrespondence between acquired meaning (the architectural-order meaning of the column) and design meaning (the design use of the column as a space-

effect element), and from semantic estrangement."<sup>13</sup>

In the metamorphological method of Fujii, that is one possible way to create nonconforming relationships between the two meanings of an architectural element, 'deviation' cannot be completely unattached from the initial meaning, there needs to be a certain 'resemblance'. He explains this concept through the example of Borromini's architecture where columns sometimes assume roles other than that of load bearing. They sometimes shift roles and "function as buttresses; sometimes they soften the effect of cantilevered balconies or serve as branching points to emphasize the intersection of two axes."<sup>14</sup> In each case, the element is not completely effaced but maintains the code of the architectural element of column, and shifts function. This is what Fujii calls the contiguity that completes the 'alteration,' to generate the tension discussed before.

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11. Hiromi Fujii, "Existential Architecture and the Role of Geometry," in *The Architecture of Hiromi Fujii*, ed. Kenneth Frampton (New York: Rizzoli International Publications, 1987), p.28; "... for example, conventional meaning, practical meaning, or meaning as an instrument of a particular message." In the first chapter, we have analyzed the many ways in which such meanings have come to govern the conventional structure of residential dwellings.

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12. Hiromi Fujii, "Architectural Metamorphology: in Quest of the Mechanism of Meaning," in *The Architecture of Hiromi Fujii*, ed. Kenneth Frampton (New York: Rizzoli, 1987), p.76.

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13. Fujii, "Architectural Metamorphology," p.78.

14. *Ibid* p.76.

## *Multilayered Space*

Using the Japanese garden as an example, Fujii analyses the multilayered space in his article "Concatenated, Multilayered Space." He points out how the absence of vista in these gardens create multiple landscapes in each moment, in comparison to the vista in French gardens where the castle as the single center of the immensely vast gardens is always perceivable and the entire arrangement is completely transparent. In order to achieve this transparency, French gardens become completely constructed spaces, whereas Japanese gardens, appear unconstructed, even though they are carefully created by man. The intention in the creation of the Japanese garden is not to obtain opacity, but to achieve a multilayered transparency. Contrary to literal transparency which allows the viewer to observe a space with depth from a point, the multilayered transparency is obtained through the interpenetration of multiple perceptions that

allows the viewer to interpret the composition as the subject moves throughout the space. Fujii points out that Japanese gardens allow for such condition since it allows transformation of vision. "The multilayered garden is above all metonymic. This is because landscape is generated by systematic activity such as aberration, overlapping, and transformation. One's gaze and the objects of vision are dispersed; the eye travels in a zigzag path past fragments of a patchwork landscape where distances cannot be measured."<sup>15</sup>

Understanding what gives the Japanese gardens the capacity to be 'generators of meaning,' can help us recreate similar spatial qualities in different settings, including that of the living space that aims to host a community. The multilayered transparency, if adapted to the interiors, can be a useful tool to preserve the individuality of inhabitants in a common space.

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15. Fujii Hiromi, "Concatenated, Multilayered Space," in *The Architecture of Hiromi Fujii*, ed. Kenneth Frampton (New York: Rizzoli International Publications, 1987), p.104 .

As a result of these investigations, he was associated with the deconstructivist movement. Fujii has inspired many architects, especially Peter Eisenman who - published many of Fujii's writings in *Oppositions* - seeks to free form from function, meaning and aesthetics, all the while not denying the presence of such conditions. The theoretical work of Fujii and Eisenman may seem to have much in common, including their objective, but on closer look, their methods and philosophy differ widely. Indeed, Hiromi Fujii criticizes Eisenman's method, declaring that his aim to destroy convention is incapable to produce meaning,<sup>16</sup> Fujii instead, aims to maintain a tension between the convention and the its deviation, stressing the need to compose whole objects rather than completely isolated elements. As a result, Eisenman's erasure and replacement of walls with planar surfaces, completely detached from the meaning

of the wall, differs strongly from Fujii's approach.

The integration of these researches in living spaces, as Hiromi Fujii also explains, is an effective way toward the questioning of conventional lifestyle and derive new meanings that we can make proper, and integrate in the lifestyle that our times require. This approach is visible in many of the case studies that were chosen to be studied in this chapter; each one, in a way, unconventionalizes' a certain architectural element and thus, opens the way to appropriation and interpretation by the inhabitants, which in turn result in interaction of individuals and in the creation of micropublic spaces that invite the generation of groups.

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16. Fujii, "Architectural Metamorphology," p.77.

## *Todoroki House*

*Ichikawa, Chiba Prefecture, 1975*

The building is a combination residence (second floor) and place of business (first floor). The owner is the president of an equipment firm; and, in the future, the first floor offices of this building will be used as a showroom for his merchandise. To accommodate the needs of such a showroom, an equipment room has been provided at the first-floor entrance. In terms of form, the building is a series of cubes set inside one another. The largest openings are, naturally enough, in the largest cube, the openings diminishing in size as the cubes decrease in volume.<sup>17</sup>

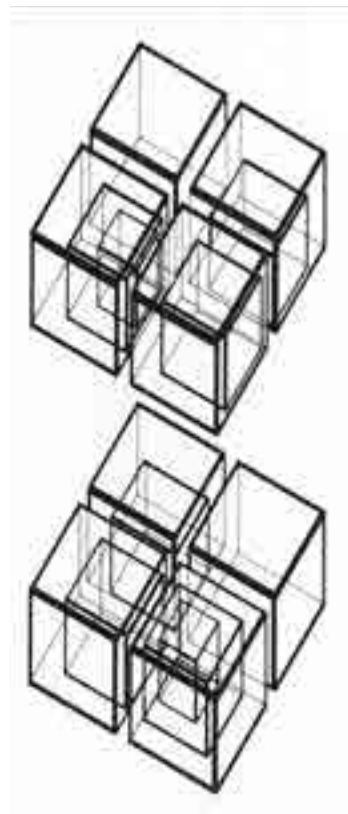
17. Description of the project by the architect, taken from *The Architecture of Hiroshi Fujii* ed. Kenneth Frampton.

Fujii's explorations are especially evident in Todoraki Residence built in 1974. "One finds it hard to imagine what an ordinary domestic life would be like in such places."<sup>18</sup> This comment by Kenneth Frampton in reference to the residential projects of Hiroshi Fujii, explains the curiosity that the composition of Todoraki Residence evokes in its viewers.

18. Frampton, "The Japanese New Wave," p.11.

This page: space structure/ organizational scheme.

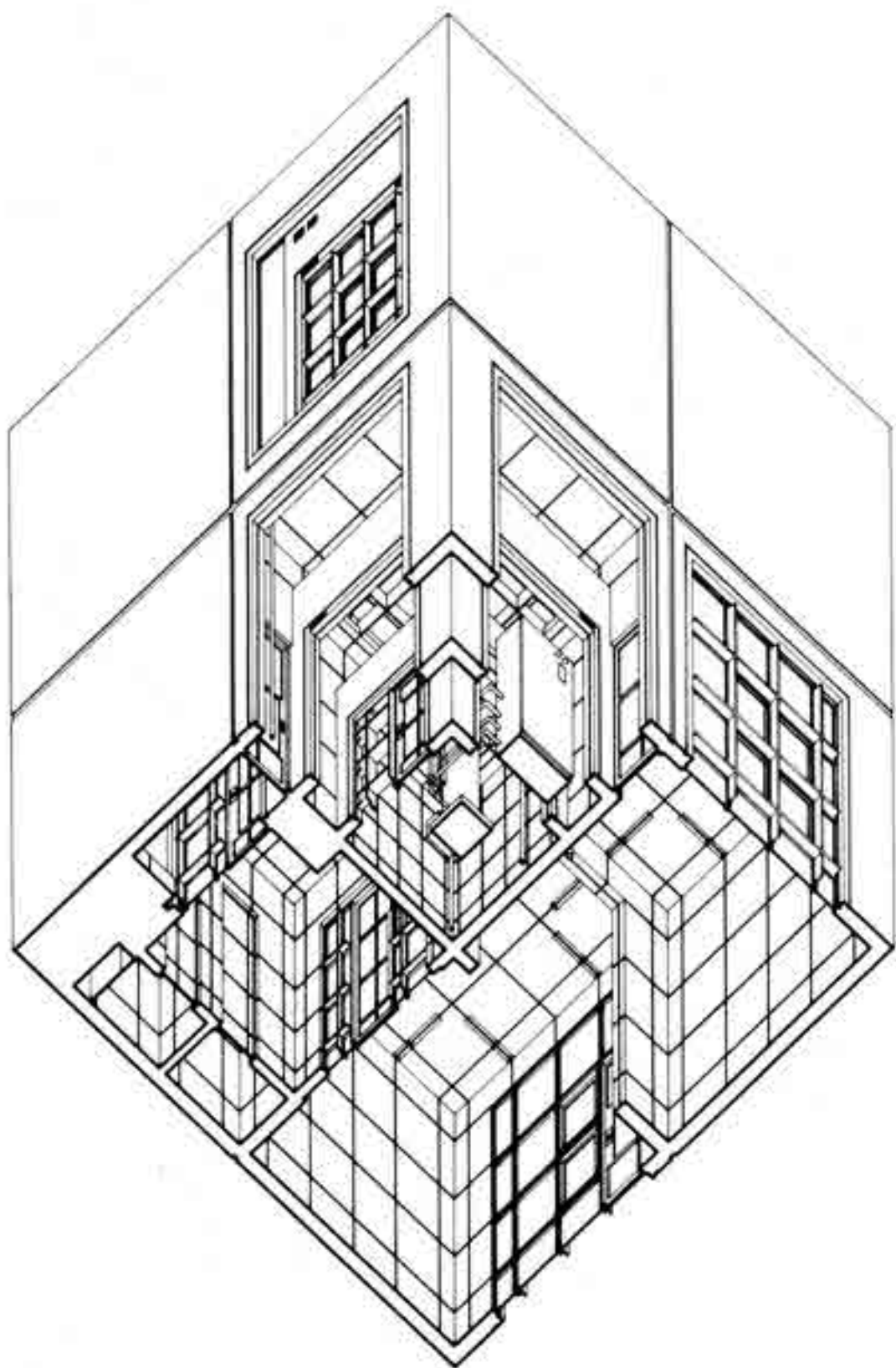
On the opposite page: Main facade Images courtesy of © Fujii Architects Studio. Taken from *The Architecture of Hiroshi Fujii*.





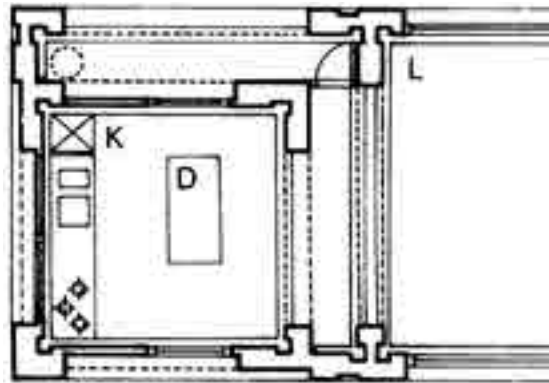
This page: interior view of the ground floor, plans and section.  
 Right: cut-away axonometric.  
 Images courtesy of © Fujii Architects Studio. Taken from *The Architecture of Hiromi Fujii*.





*Project No.5. Similarity,  
Connotation, Junction.  
1975*

One of Fujii's numerous experimental studies on embedding and studying the concept of box within a box. The concept explored in this project is clearly visible in many of the architect's built work.



*Project E-2  
1968-1971*

An example of Fujii's experimental projects, E-2 follows Robin Evans's remarks in his article "Figures, Door and Passages". This project is almost a demonstration of the object of Evans' arguments; the interconnecting rooms' with a potential to generate interaction. We see that each room has three doors connecting it to all the rooms that surround it.

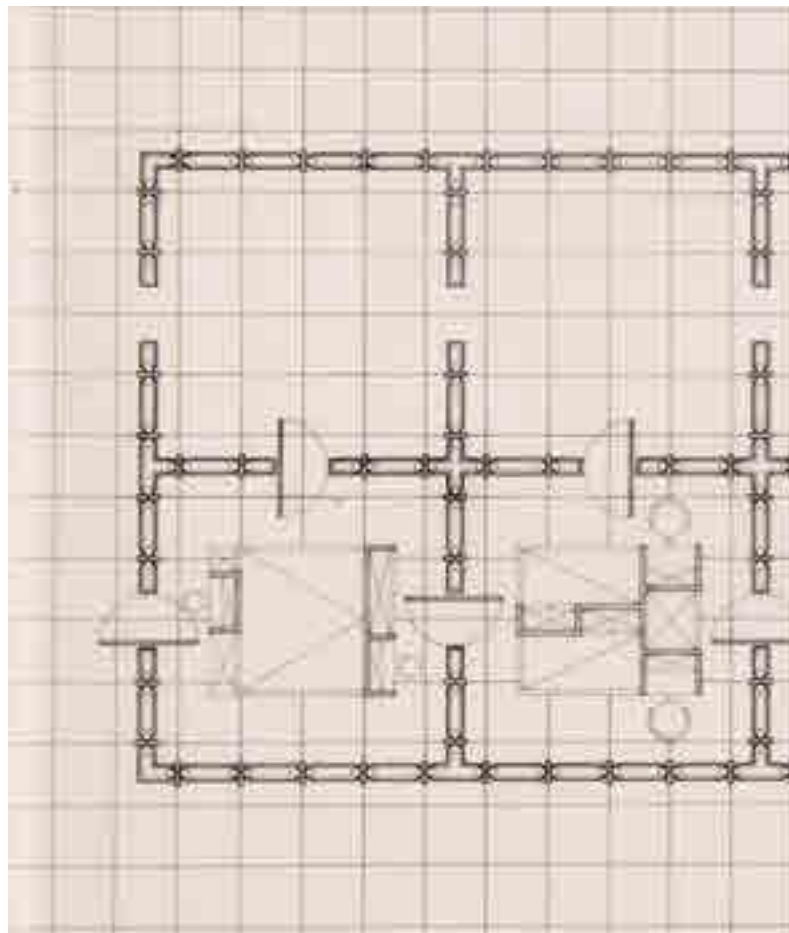
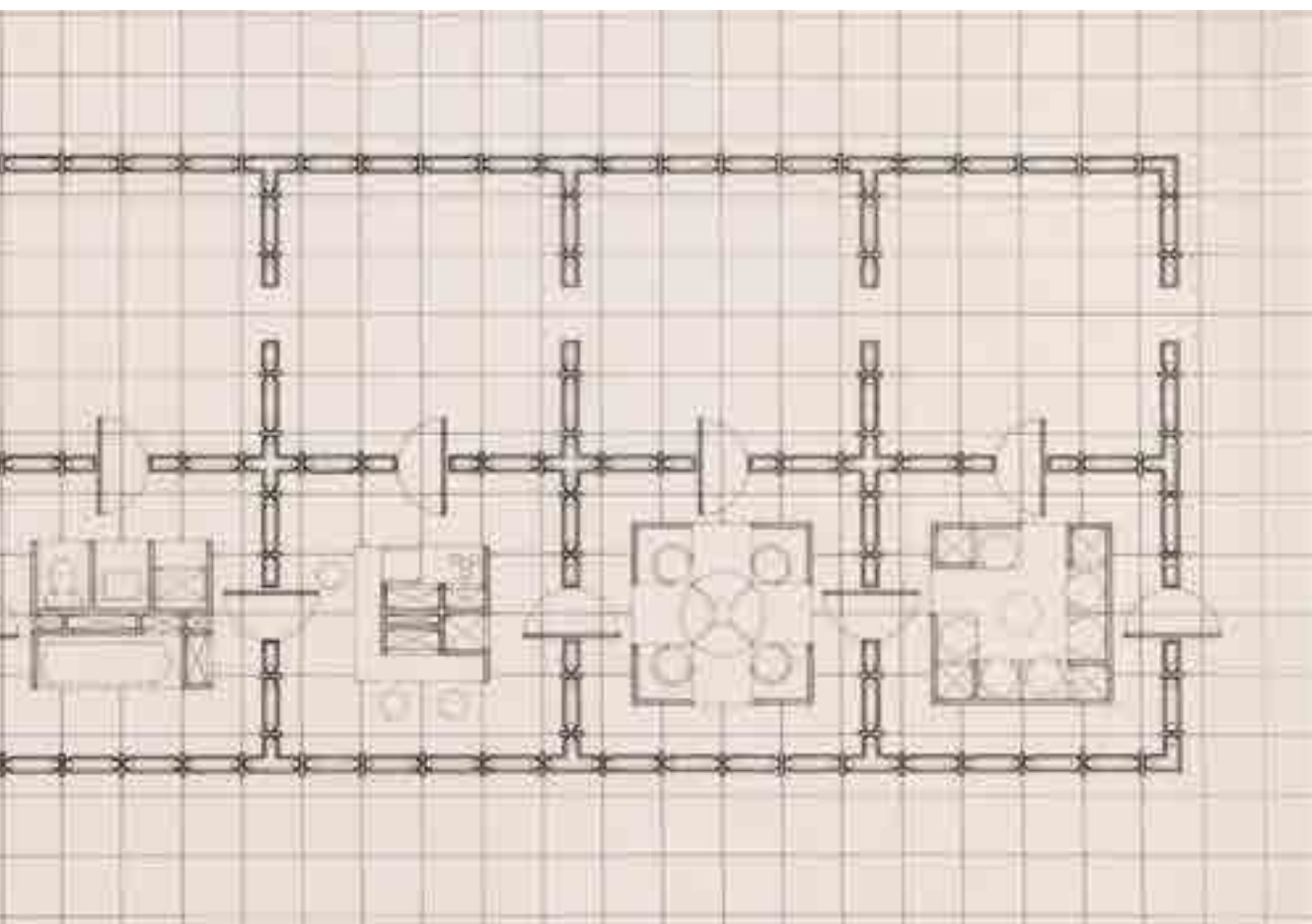
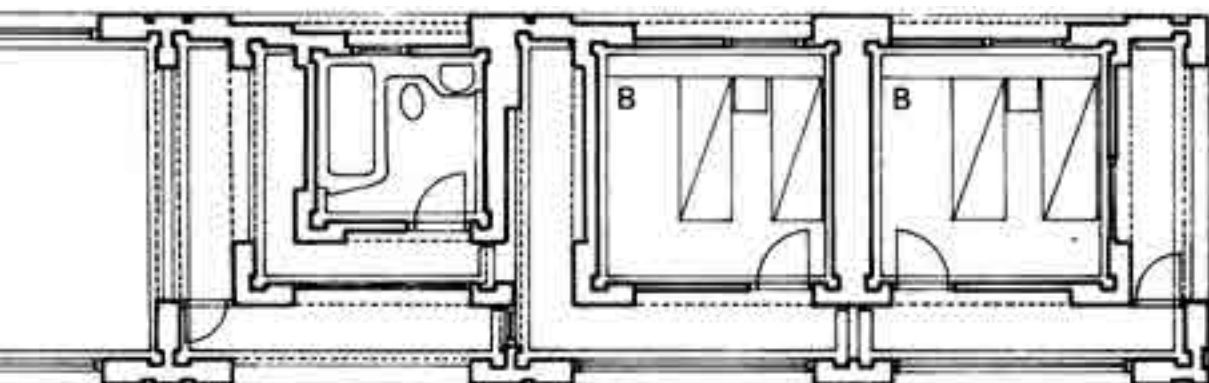
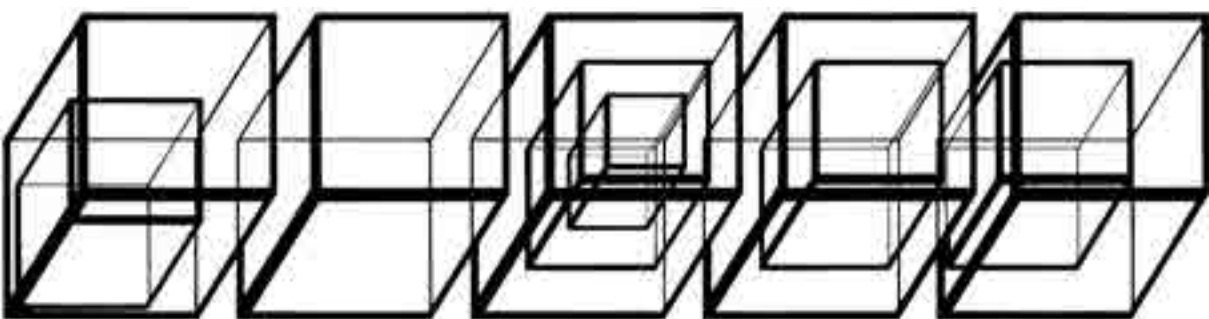
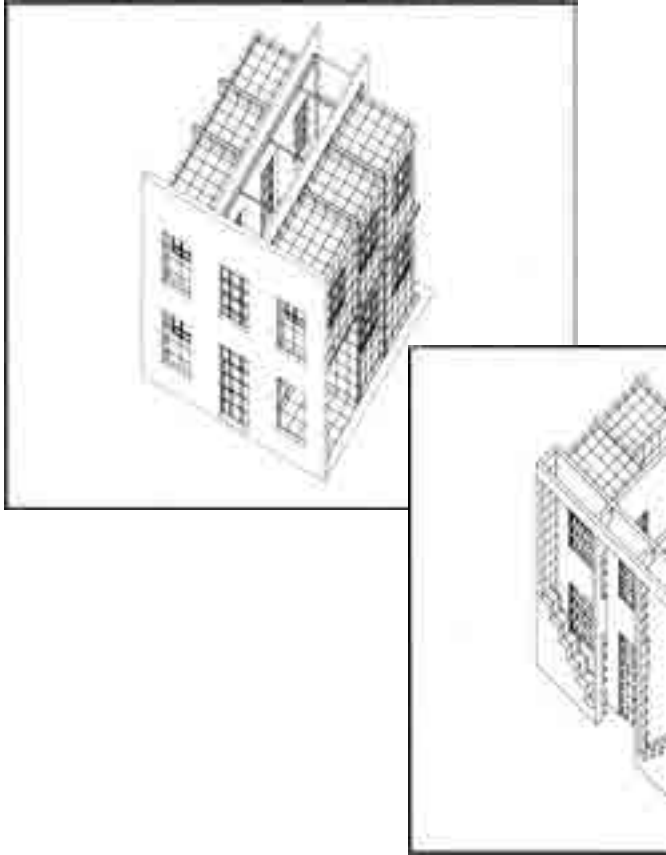


Image courtesy of © François Lauginie taken from [http://www.frac-centre.fr/\\_en/art-and-architecture-collection/fujii-hiromi/project-317.html?authID=275&ensembleID=888](http://www.frac-centre.fr/_en/art-and-architecture-collection/fujii-hiromi/project-317.html?authID=275&ensembleID=888)



## *Projects T (T.01, T.12, T.34, T.39)*

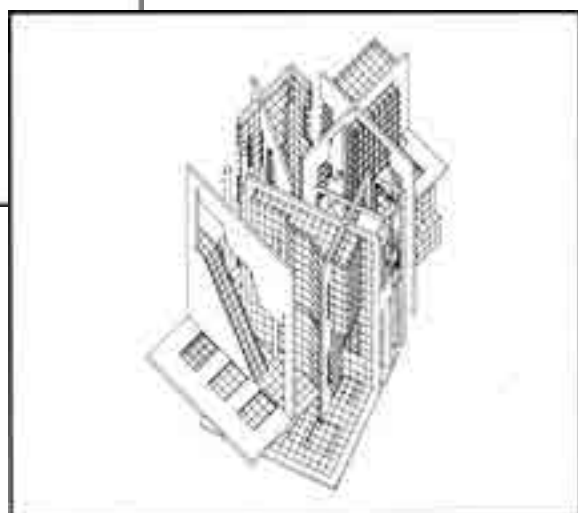
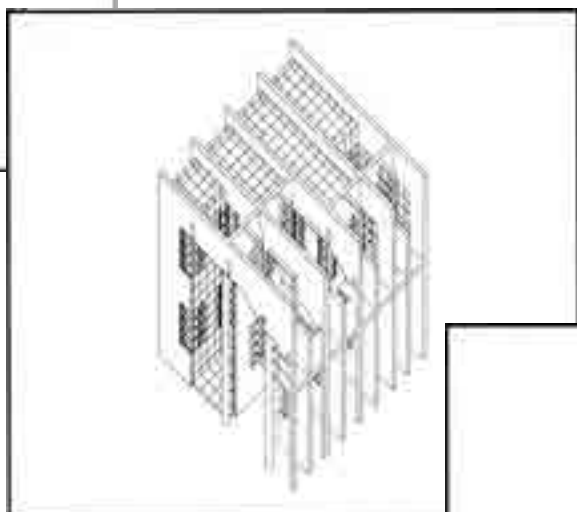
*1979*



With this series, Fujii explores mechanisms that can help alter the codes and rules of conventional appearance. For example in Project T.01 (1979), he employs a controversial use of inside and outside, depriving the terms of their ordinary meanings. In T.12 this concept is further evolved into an exterior wall that is interiorized and lost its obvious function, and two elevations of the house are exposed to the outside.

In his article "Architectural Metamorphology", Fujii lists some of the processes that can be used to create metamorphology; *disparity, gapping, opposition, reversal, inversion, substitution, subrogation, abbreviation, severance, fragmentation.*<sup>19</sup>

19. Fujii, "Architectural Metamor-



*Hiroshi Hara*  
*Through Hara House*

Botond Bogнар, a renowned scholar of the history and theories of contemporary Japanese architecture, places the Hara House (as all his Reflection Houses) within an era of protest and protection in Hiroshi Hara's architecture - as part of the New Wave in Japan - that expresses his rejection of increasingly commercialized, chaotic and overwhelmingly intrusive nature of the city. Here, the interior is sealed off from the outside, concentrated around a strong central space, and the nature is represented by the light that enters through the skylight and comes down bouncing on the surfaces of the interior. Hara himself explains the roots of his interest in manipulating light and reflections, associating it with his fascination of the deep valley surrounded by mountains that manipulated the perception of the light source, around Lida city where he grew up as a child.<sup>20</sup>

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phology," p.79.

20. "The mountains, which act as screens reflecting sunlight, and the topography of the valley have deeply affected my architectural design." Hiroshi Hara, "Reflection / Embedding," in Hiroshi Hara: The 'Floating

Even though the intention to keep out all elements of the outside world except for the sunlight, by bouncing on naked walls has a strong similarity to Tadao Ando's residential interiors - White U - Hiroshi Hara differentiates from Ando in his intention to embed the city within the house by inverting the inside and outside. As Hara himself recognizes,<sup>21</sup> such inverted residential architecture is highly anti-social, but yet, an inspirational experimentation on the living spaces.

### *Box Within A Box (Embedding)*

Deeply influenced by the valley as topography, Hara visions streets as valleys between two facades;

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World' of his Architecture, ed. Botond Bogнар, p.34.

21. Hara, "Reflection / Embedding," p.22.

*"...we can speak about valley topography even without mountain ranges: it can be brought about by any two facing structures. Two people standing on either side of the valley will meet each other due to the character of the facing structure. Thus by employing this structure, Valley Architecture induces people to meet. [...] In the Reflection Houses, my concept was to place a valley designed like a street, in a small house. This process of enveloping valleys of streets in houses can be referred to as 'embedding'. Basically, embedding is a geometrical operation since one geometric form is placed within another."*<sup>22</sup>

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22. Ibid, p.35.

This is Hara's interpretation of the recurring 'box within a box' concept. The architect himself uses the Hara House, his own residence as a sample of embedding;

"The concept described above is most clearly expressed as form in my own house. [...], which can be described as follows:

The house's public space descends via stairs that take into consideration the site's slope, with the living room at the bottom.

The rooms, each with a toplight, are symmetrically located along the public space.

Skylights mark the axis created by a and b.

In my own house, each room has an acrylic ceiling referred to as the 'second roof'. This emphasises the distinctiveness of each as a small, independent building. Thus the interior space resembles a street."<sup>23</sup>

## *Atmospheres*

In the same article, Hara points out another aspect that drives his attention

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23. Hara, "Reflection / Embedding," p.35.

toward form; its strong influence on the interior atmosphere. He is fascinated by the thought of the house as an intersection of 'fields' of phenomena such as temperature, air movement, resonance and brightness, but most importantly, the resident's field of movement.<sup>24</sup>

"What I found significant was not simply the ritualistic and concentric aspects of the buildings, but their changing state in accordance with the cycle of nature. This is the same as thinking of architecture as a field, ie, not considering it as 'things' but as 'events'. With the field, things are not important in

contrast to events."<sup>25</sup>

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24. *ibid*, p.35.

"Another aspect that interested me was the correlation between form and the interior atmosphere - that is, sunlight and interior brightness, temperature, air movement, resonance, the optimal viewing angle ect, at each point in the house. The situation in which these phenomena take place is called the 'field' in physics. In these terms, the house is an overlay of fields of brightness, temperature, air movement, resonance and optimal viewing angle. Though difficult to predict, the residents' field of movement's of course the first to be considered."

25. *Ibid*, p.36.



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*Kazuo Shinohara*

## *The Fissure Space*

When reading Kazuo Shinohara's article "Beyond Symbol Spaces" that he wrote for the Japan Architect magazine in April 1971, it becomes evident that his approach to architectural creation holds a deeper meaning than that of the visible, functional or aesthetic. It aims to discover the human nature and to create spaces capable of responding to such discoveries, a living environment that best fits this nature. It incorporates emotions and uncertainty, and uses technology and industrial equipment only as tools. Shinohara himself repeatedly accepts the constantly evolving nature of such research and its topics. Written right after the completion of his two projects "The Uncompleted House" and "Shino House", which are considered the start of the second phase of his career, this article talks about the sensations - fears and impressions evoked by the experience of being in these houses,- that the visitors have expressed, more than

describing the composition and construction of the houses. A rhetoric in strong harmony with his famous motto "house is a work of art."<sup>26</sup>

Accepting the technological development and commercial elements that help facilitate our lives as a certainty, Shinohara declares his intent to work with the uncertain, that is "the hearth of Man."<sup>27</sup> In the houses that Shinohara creates, he seeks to bring out the 'eternal' element, an element that, "when expressed in the small spaces of the house, will give spiritual support to the residents in the face of the terrifying growth power of contemporary technological society."<sup>28</sup>

Departing from this strongly sensible philosophy, Shinohara divides the spaces of his houses into two categories; ordinary spaces - efficiently organized and down to earth daily-life sections, including sleeping

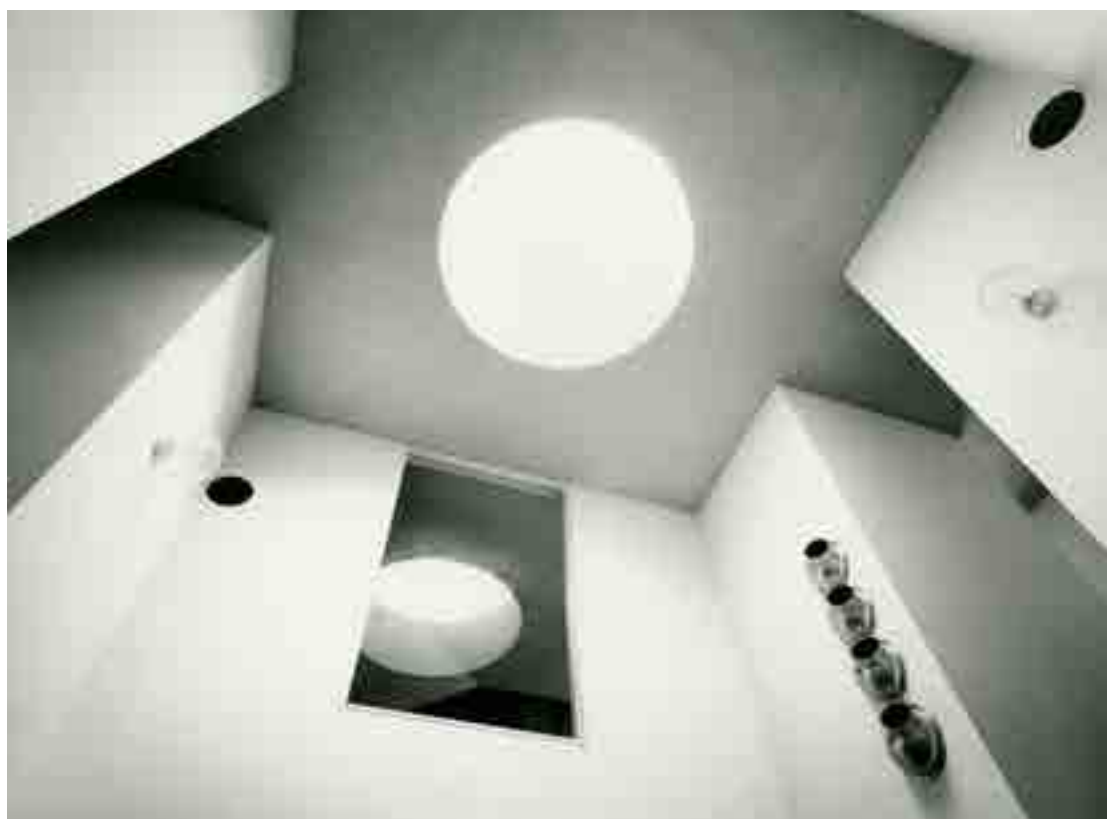
quarters, studies, bathing facilities and kitchen -, and the extraordinary spaces; the main space that includes the living room section, which holds a symbolic nature. Throughout his career, Shinohara followed many different methods in order to achieve this symbolic nature, such as with concepts of 'frontality' or 'multiplicity'. At the intersection of the two different kinds of spaces, lay the hearth of Shinohara's discourse, the 'fissure space', which becomes an important theme in Shinohara's spatial compositions from this moment on. He describes such space as discontinuation, a break in otherwise classical and almost religious interior spaces of The Uncompleted House and Shino House. This fissure space is represented by the living rooms that takes the form of a narrow valley with a strong verticality, that by interrupting the ordinary spaces of the house, creates an awareness of the continuity itself, by creating possibilities for new kinds of connective relationships.

26. Kazuo Shinohara, "Beyond Symbol Spaces. An Introduction to Primary Spaces as Functional Spaces." *The Japan Architect; Architecture - Era - Discourse*, Spring 2016, p.36.

27. Ibid p.40.

28. Ibid p.36.

## *The Uncompleted House*



On the opposite page, from left:  
Diagram of the fissure space  
First floor plan  
Ground floor plan  
View of the ceiling of the fissure  
space in the Uncompleted House.  
Photo by Koji Taki.  
Right: View on the fissure space.



*House in Higashi - Tamagawa*

*Tokyo, 1973*





Top: Plans.

Right and left: Views on the fissure space including living quarters.

Photos; © Hiroaki Tanaka, Taisuke Ogawa, Koji Taki. Source: JA 93/2014 "Kazuo Shinohara - Complete Works in Original Publications", pp. 68-69

*Kazunari Sakamoto*

## *The Main Space*

When Kazunari Sakamoto talks about his professional path as an architect in his book "House: Poetics in the Ordinary" - published in 2001 for an exhibition with the same title - he uses a language that can be considered similar to that of Shinohara in its attention to emotions and sensibility, especially when he talks about certain compositional decisions being the result of his "intuited spatial sense at the time."<sup>29</sup>

It is possible to find, within Sakamoto's descriptions of his own approach toward residential architecture, what the research in the second chapter of this thesis reveals to be the expectation of future generations from their living environments.

Sakamoto's description;

*"My present reality with respect to architecture, or my expectations towards architecture, is*

*not [...] come aesthetic of space, nor a dramatic composition that provides emotion[...]. It can be said to be in an "architecture as environment" that grants us freedom related to our own reality - our life, activities, and actions - and stimulates vital movements,"*<sup>30</sup>

is strongly paralleled in the current demand for the spatial compositions that promote community and interactions while maintaining the privacy of the individuals. This is why studying Kazunari Sakamoto's work can be useful in finding guidelines for the residential architecture of our future.

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29. Kazunari Sakamoto, *House: Poetics in the Ordinary*, trans. John Montag (TOTO Shuppan, 2001), p.17.

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30. Sakamoto, *House: Poetics in the Ordinary*, p.193.

### *Box in a box*

As part of the generation of young Japanese architects of the time - Not officially one of the New Wave but strongly related to, - Sakamoto as well, has worked on creating an interior space within the house that is opposed to and isolated from the chaotic and efficiency-oriented nature of the society. Even though this typology that he defines as 'closed box' does not respond to today's desire to connect to surroundings as to form a community, it does give way to the idea of nested rooms within the house, which leads to the box in a box strategy, a strategy that has the possibility to allow such connections.

Sakamoto's success lies in his ability to observe and formulate what people expect from the space that surrounds them. His observation on "Our contemporary selves resonate and relate within a space where things relate loosely"<sup>31</sup> is the root of his effectiveness in creating

spaces that are open, spaces that have lost their centrality but are still dense and homogeneous, spaces that host multiple spatial characters at once. He seeks to achieve a spatial freedom that will allow its inhabitants to assign meaning and to achieve themselves freely.<sup>32</sup> He achieves this character in his projects by using the box in a box strategy, where the part is independent from the whole, and a structure holds the system of openness that allows the parts to be inserted. The result is a homogenous structure formed of parts where;

*"each part made itself independent and formed a place, and each of these places was given an active vitality. Moreover, these individual spaces, while independent, held a flexible relationship with each other."*<sup>33</sup>

(when describing the

32. Sakamoto, House: Poetics in the Ordinary, p.195.

33. Sakamoto, House: Poetics in the Ordinary, p.197.

characteristics of Balinese village scenes that according to Sakamoto, represent the type of space he seeks to achieve in his architecture).

Sakamoto's interest for separate spaces and their relationship, led him to question the importance of architectural programming based on use and function (nonetheless accepting that this is where the basic need for architecture comes from) as insufficient since it doesn't consider a relationship to the actual space that contains the program.<sup>34</sup> Similar to when Shinohara declares his interest in working on what is uncertain, rather than the certainties in architecture, Sakamoto as well develops his own vocabulary in order to concentrate on what he considers as less certain. He chooses to name the rooms based on their relationship to each other (such as main room, room, exterior room) instead of assigning names based on use (such as living room, parents room, storage). He points out that this terminology is not limited to the composition

34. Sakamoto, House: Poetics in the Ordinary, p.239.

31. Sakamoto, House: Poetics in the Ordinary, p.195.

of a dwelling, but it is also efficient in describing spaces that extend beyond the building itself.<sup>35</sup> Within these compositions that follow the closed box concept, a shell volume holds several small boxes inside, which are the rooms with definite functions and the remaining space is the main room - with living room or dining room that have less clearly defined functions. The main volume that encloses the other rooms becomes the main room.<sup>36</sup> In this composition that Sakamoto describes as an inclusive room arrangement with the Main Room Type composition, the rooms are organized based on enclosure.

### *Inclusion*

Later in his career, Kazunari Sakamoto revisits his initial concept of closed box, in order to achieve a more open and free relationship between his projects and their surroundings, through the method of spatial arrangement instead of openings in the building. Maintaining the Main Room Type, he moves on to different arrangements, such as adjacency, overlapping, and repetition.

He comes to describe House SA (1999) as made entirely of Main Room, due to the overlapping of its units, creating an organic whole, including also the exterior space.<sup>37</sup> At this point of his career, it becomes Sakamoto's goal to achieve organic relationships not only on the interior but also between the inside and the outside. By working on layering the outside space with equal attention - using the vocabulary of relationships such as main exterior room, linking room,

exterior room - he aims to create;

*“an integrated space where the characters of public, common and private space intermingle. This type of exterior space is an organic, functional, common space that responds to the urban space and becomes a location of various forms of networks.”<sup>38</sup>*

35. Sakamoto, House: Poetics in the Ordinary, p.239.

36. Sakamoto, House: Poetics in the Ordinary, p.247.

37. Sakamoto, House: Poetics in the Ordinary, p.249.

38. Ibid.

# *House at Minase*

*Tokyo, 1973*

This house is one of Sakamoto's first houses, designed based on the 'closed box' principle of Sakamoto where the house "should present a closed and simple exterior to its surroundings."<sup>39</sup> However,

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39. Kazunari Sakamoto, "The House as Architecture," *The Japan Architect; Architecture - Era - Discourse*, Spring 2016, p.58.

the closed box is not the aspect that we will study here. The box is the exterior layer, the one enclosing the multiple layers that constitute the structure of this house. One of the possible ways to arrive at the concept of 'layering', this closed box encloses a group of units. The units are grouped around the Main

Room, which is enforced by 'assistant spaces' such as the central deck, staircase, and corridor in its role of binding these individual units together.<sup>40</sup>

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40. Ibid.





Left: View from Living & Dining.  
 Photo by © Shinkenichiku-sha Co., Ltd. Source:  
 JA 101/2016 "The House as Architecture," in  
*The Japan Architect; Architecture - Era - Dis-*  
*course*, pp. 62.  
 This page: Plans and section  
 Right: View of the main space upstairs. Taken  
 from *Poetics in the Ordinary*

# *Kumono-Nagareyama House*

1973

Description by the architect  
in *Poetics in the Ordinary*;  
Literal, inorganic, dry  
"closed box". Section is a  
4.5 meter wide by 4.5 meter  
tall square. Walls, roof, and  
floor unfurnished concrete.  
Small rooms inserted into  
cube create enclosing box-  
in-a-box space. Reinforced  
concrete construction.

Pictures taken from *Poetics in the Ordinary*



# House SA

1999

Description by the architect in *Poetics in the Ordinary*;  
Surrounding wall follows floor which is articulated in response to existing terraced site and sloped roadway. Roof allows proper solar collector alignment with sun. Parts established as parallel and coexistent - rather than hierarchical and unified - through composition allowing individual components to respond independently to exterior conditions. Composition allows fragmented and imperfect form. Reinforced concrete (lower floor) and wood (upper floor) construction.



Images taken from *Poetics in the Ordinary*



*Peter Zumthor*

*“So what moved me? Everything. The things themselves, the people, the air, noised, sound, colors, material presences, textures, forms too- forms I can appreciate. Forms I can try to decipher. Forms I find beautiful. What else moved me? My mood, my feelings, the sense of expectation that filled me while I was sitting there. Which brings that famous Platonic sentence to mind: “Beauty is in the eye of the beholder.” Meaning, it is all in me. But then I perform an experiment: I take away the square - and my feelings are not the same.”*

*Passage from Atmospheres by Zumthor*

Zumthor, similar to previously studied architects, creates his own vocabulary through which he sets his own approach to the creation of spaces in architecture. As he explained in a lecture at the "Wege durch das Land", a festival of Literature and Music in Germany, on 1 June 2003, - which was later on published as a book - 'atmosphere' is the word under which he chooses to group all the concepts that he follows when in search of an explanation for 'quality architecture'.<sup>41</sup> He explains that what he considers as 'quality architecture' depends on the immediate effect of the space on him; it is what moves him. Thus, in his works, he aims to achieve a result that manages to immediately communicate with the visitor, provoke sentiments and a strong first impression through its atmosphere. The immediate appreciation, similar to that experienced with music, is what he seeks to obtain in the spaces he creates. Words like 'spirit,' 'intensity,' 'mood' are recurrent as he explains,

in nine chapters, the line of thought he follows when trying to generate a certain atmosphere in architecture. It is an attempt to explain how 'impressions' can be translated into architecture and similar to what happens when composing music, he admits that it takes "craft and graft," "processes and interests," and a great deal of work to get there. 'The body of architecture,' 'material compatibility,' 'the sound of space,' 'the temperature of space,' 'surrounding objects,' 'between composure and seduction,' 'tension between interior and exterior,' 'levels of intimacy,' and 'the light on things' are the nine chapters he explains his process through.

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41. Peter Zumthor, Peter Zumthor: Atmospheres, (Birkhäuser, 2006): 11.

## *Surrounding Objects*

Based on his opinion that there is a certain beauty in the appropriation of spaces when they are lived. When the building is filled with signs of life, objects and details that express signs of use. Zumthor argues that architects should think about the future of the building when they will no longer be involved. The building should have the capability to allow the appropriation of its spaces by the inhabitants and no matter how minimalistic our thought on consuming may be, 'surrounding objects' will always remain a sign of this liberty of making a building, one's own living space.

## *Between Composure and Seduction*

"Hospital corridors are all about directing people, for example, but there is also the gentler art of seduction, of getting people to let go, to saunter, and that lies within the powers of an architect."<sup>42</sup> In Zumthor's opinion, quality architecture should be able to offer, when needed, a freedom of movement where the visitor is seduced rather than directed.<sup>43</sup> The sensation that I, as the subject moving through the building, choose to go in a certain direction because something attracts me, I choose to linger. It is the organizational aspects of the building that has the potential to allow the calming effect of seduction and freedom, or to impose the most efficient path to get from a point to another, depending also on the requirements of the program.

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42. Peter Zumthor, Peter Zumthor: Atmospheres, (Birkhäuser, 2006): 43.

43. Peter Zumthor, Peter Zumthor: Atmospheres, (Birkhäuser, 2006): 41.

## *Tension between interior and exterior*

*"Whenever I'm doing a building I always imagine in those terms: what do I want to see - me or someone else using the building later - when I am inside? And what do I want other people to see of me? And what sort of statement do I want to make publicly? Buildings always say something to a street or the square."*<sup>44</sup>

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44. Peter Zumthor, Peter Zumthor: Atmospheres, (Birkhäuser, 2006): 49.

## *Levels of Intimacy*

"It all has to do with proximity and distance."<sup>45</sup> What would otherwise be explained through the vocabulary of 'scale', becomes a series of relationships and relative opinions in Zumthor's words, which gives voice to the inherent subjectivity of this matter. Intimacy is not calculated or measured, it is a phenomenon that is experienced. Originated in a 'feeling of the interior' which Zumthor argues is more than an enclosed space and walls, that is communicated through weight and size. Especially through the manipulation of the size of the elements that compose the building, in contrast to that of the visitors, applying a certain gravity on them.

*'Maybe you know a tall slim door that makes everyone who comes through it look great? Or do you know that rather boring one, wider - somehow shapeless? And the enormous, intimidating portal where the person who comes to the door looks good, or proud.'*<sup>46</sup>

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45. Peter Zumthor, Peter Zumthor: Atmospheres, (Birkhäuser, 2006): 49.

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46. Peter Zumthor, Peter Zumthor: Atmospheres, (Birkhäuser, 2006): 51.

Form follows anything;

“We actually never talk about form in the office. we talk about construction, we can talk about science, and we talk about feelings [...] From the beginning the materials are there, right next to the desk [...] when we put materials together, a reaction starts [...] this is about materials, this is about creating an atmosphere, and this is about creating architecture.”

Peter Zumthor, in the lecture “Presence in Architecture-Seven Personal Observations”

Pictures by © Fernando Guerra | FG+SG





*Peter Eisenman*

Known for his theoretical work on form in architecture, Peter Eisenman, through varying methodologies, has questioned the idea of form as an agreed-upon narrative since the beginning of his career. In order to explore form as a field of possibilities, he has decomposed, analyzed and 'disturbed' modernist buildings of known architects, starting in 1963 with his doctoral thesis; "The Formal Basis of Modern Architecture."

In his article "From Object to Relationship" it is possible to see how Eisenman is inspired by a set of distinct influences, ranging from paintings to language, and how he constructs his architectural discourse with the interpenetration of these concepts. In his doctoral thesis, Eisenman is not interested in creating new forms, but he concentrates on the conventional relationship between form and function, between form and meaning, between form and aesthetics, in order to displace such relationships. With this act of deconstruction, he aims to open the way of 'new' meanings, a new awareness

between the society and the space around them, that he defines as "the relationship of forms," rather than the object itself.<sup>47</sup> He does not deny the presence of conditions of function, meaning and aesthetics, but he seeks to add to those perceptual conditions, a dimension of conceptual meaning.

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47. Peter Eisenman, "From Object to Relationship II: Casa Giuliani Frigerio: Giuseppe Terragni Casa Del Fascio," *Perspecta*, vol. 13/14 (1971):p.38.

## Deep Structure

In this article, one of the two main themes of Eisenman's discourse is based on the differentiation of deep structure, from superficial structure, which he defines in analogy with the theory of Noam Chomsky on grammar. Eisenman groups the sensorial, the perceived aspects of architecture (color, texture, shape, ect.) which characterize an 'object' as 'the superficial structure'; while the mental, the conceptual aspects (frontality, compression, disjunction) constitutes 'the deep structure'. He exemplifies this categorization as ; "flatness is a characteristic of an object while frontality is an attribute which an object may assume in relation to another object or in relation to a preferred viewpoint of an object."<sup>48</sup> Indeed, as the title suggests, he intends to go beyond the perceived in order to explore the nature of these relations and their implications on 'objects'. He repeatedly points out that meaning in architectural form lies in the relationship

between the objects, and deep structure is what can;

*"provide the referent structure so that the meaning might be derived from a particular relationship of specific forms."*<sup>49</sup>

## Ambiguity

The second theme of the article is instead based on a different linguistic theory, by William Empson. Empson argues that in linguistics, ambiguity might be a solution to certain situations where there is a need "to create a unitary solution between the logical conflict of the denotative and the connotative."<sup>50</sup> Eisenman customizes this approach for architecture with the claim that ambiguity in conceptual sense can be one transformational method that ;

*"might allow deep level structures to inform specific*

*physical environments."*<sup>51</sup>

This period of Eisenman's architecture was characterized by a certain interiority, similar to that of the Japanese New Wave architects of the 1970s. Thus, the explorative work of this initial period in his architecture is strongly self-referential; external factors are ignored and the study concentrated on the architectural form isolated from its surroundings. He, later on, abandons this isolated approach, however, this research has been an important basis for his professional practice and for his methods that constantly evolve in parallel with the cultural tendencies of the time.

For the specific purposes of my study, I have chosen to take a closer look at Eisenman's studies that relate to the start of his career. This study, which shares the same interest of observing the architectural form in order to understand the compositional strategies that bring such results to life,

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48. Ibid, p.39.

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49. Ibid.

50. Ibid, p.41.

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51. Ibid.

adopts, to a certain extent, the methodology that is used by Peter Eisenman.

### *Eisenman's methodology in 'From Object to Relationship II;*

In this article, of which I intend to follow the methodology in the following explorative analyses, Eisenman concentrates on Giuseppe Terragni's Casa Giuliani Frigero in Como, Italy. He conducts a thorough analysis on the architectural form of this project in order to explore the way in which Terragni has obtained the spatial qualities that Eisenman previously observed and described as 'deep structure' and 'duality'; which enable objects to take on new meanings. At the end of his analysis, he intends to make explicit a relationship that has so far been implicit in architectural discourse;<sup>52</sup> that is; to ascertain the

acknowledgment of the deep level structure (in this case, in Terragni's work) and consequently, to demonstrate how this deep level influences the specific forms. He intends to do so, by establishing a set of tools that he calls 'transformational methods' for the creation of this kind of conceptually strong architecture. The goal of transformational methods, in Eisenman's words, is to;

*"shift the primary response to form from a perceptual to a conceptual nature - from object to relationship."*<sup>53</sup>

Eventually, the analysis is conducted through a set of drawings each isolating certain elements of the building in order to analyse and hypothesize upon. The drawings are of abstract nature, where the figures are unbound from the surroundings as well as detached from the overall composition of the building. On these abstracted forms, Eisenman formulates each one of the

two opposing concepts of spatial organization that are counterposed within Terragni's project, thus creating a conceptual ambiguity.

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52. Peter Eisenman, "From Object to Relationship II: Casa Giuliani Frigero: Giuseppe Terragni Casa Del Fascio," *Perspecta*, vol. 13/14 (1971):p.41.

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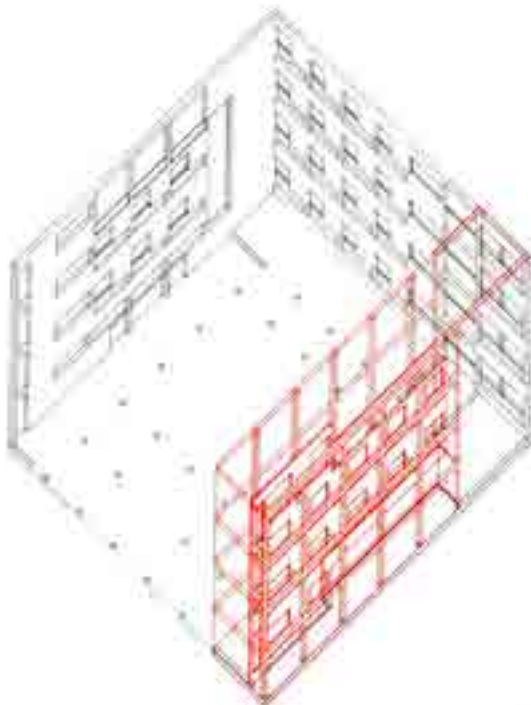
53. *Ibid*, p.40.

## *Casa del Fascio in “Object to Relationship II”*

*“Casa del Fascio. West corner. Axonometric diagram showing the entry as a sequence of additive layers.”*

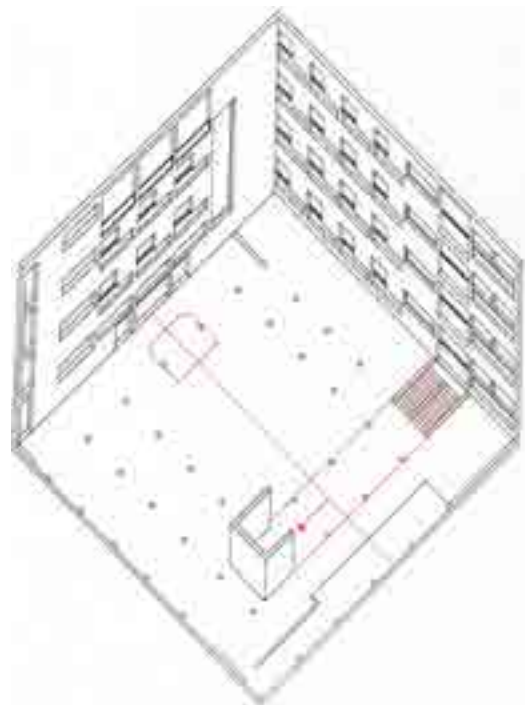
Diagram and description by Peter Eisenman in “Object to Relationship II.”

Example of the analytic drawings that Eisenman uses in his studies that are taken as a reference in this thesis.

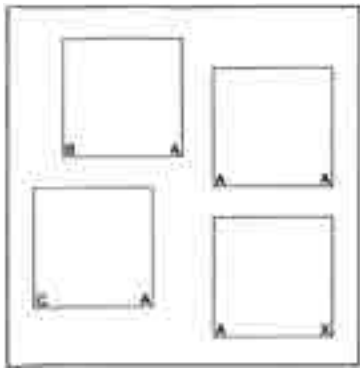


*“West corner. Axonometric diagram showing the movement of the ceremonial altar from an axial position in the rear of the main space to an off-axial position that terminates the cross axis of the stair.”*

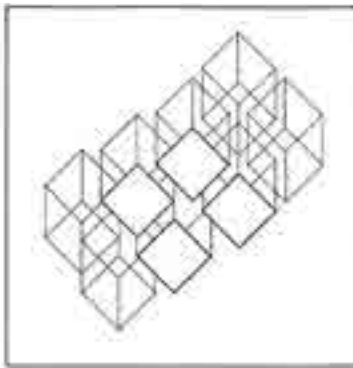
Diagram and description by Peter Eisenman in “Object to Relationship II.”



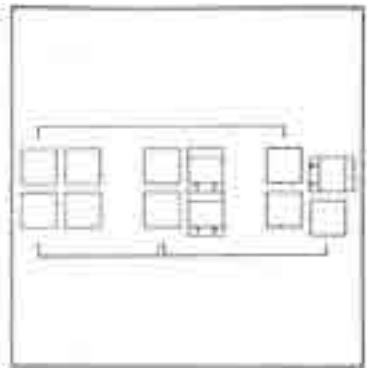
# House X



*"Scheme A<sub>1</sub>, plan diagram"*

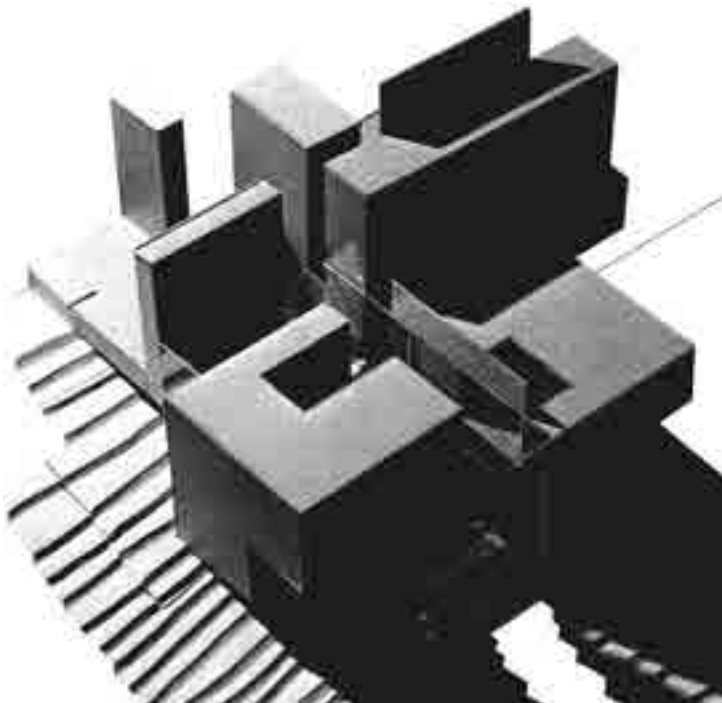


*"Scheme A<sub>1</sub>, axonometric diagram relating this scheme to two different base conditions."*



*"Scheme A<sub>1</sub>, plan diagram relating this scheme to one base condition in two different stages."*

Diagrams and descriptions by Peter Eisenman in *House X*.



*"Model, Scheme C<sub>1</sub>, view from northeast"*

Photography and description by Peter Eisenman in *House X*.

# BIBLIOGRAPHY

## *Chapter 3*

Bognar, Botond. "Between Reality and Fiction." In *Hiroshi Hara: The 'Floating World' of his Architecture*, edited by Botond Bognar, 11-33. Great Britain: WILEY-ACADEMY, 2001.

Bognar, Botond. *The new Japanese architecture*. Rizzoli International Publications, 1990.

Eisenman, Peter. "From Object to Relationship II: Casa Giuliani Frigerio: Giuseppe Terragni Casa Del Fascio." *Perspecta*, vol. 13/14 (1971): 37-65. doi:10.2307/1566970.

Eisenman, Peter. *House X*. New York: Rizzoli International Publications. 1982.

Frampton, Kenneth. *A New wave of Japanese architecture*, September 25, 1978 to November 14, 1978. Vol. 10. Institute for Architecture and Urban Studies, 1978.

Fujii, Hiromi. "Architectural Metamorphology: in Quest of the Mechanism of Meaning." In *The Architecture of Hiromi Fujii*, edited by Kenneth Frampton, 76-79. New York: Rizzoli International Publications, 1987.

Fujii, Hiromi. "Concatenated, Multilayered Space." In *The Architecture of Hiromi Fujii*, edited by Kenneth Frampton, 101-105. New York: Rizzoli International Publications, 1987.

Fujii, Hiromi. "Existential Architecture and the Role of Geometry." In *The Architecture of Hiromi Fujii*, edited by Kenneth Frampton, 33-39. New York: Rizzoli International Publications, 1987.

vHara, Hiroshi. "Multilayered Space / Self-Similarity." In *Hiroshi Hara: The 'Floating World' of his Architecture*, edited by Botond Bognar, 56-59. Great Britain: WILEY-ACADEMY, 2001.

Hara, Hiroshi. "Reflection / Embedding." In *Hiroshi Hara: The 'Floating World' of his Architecture*, edited by Botond

Bognar, 34-37. Great Britain: WILEY-ACADEMY, 2001.

Maak, Niklas. *Living Complex: From Zombie City to the New Communal*. Translated by Bram Opstelten. Munich: Hirmer, 2015.

Sakamoto, Kazunari. *House: Poetics in the Ordinary*. Translated by John Montag. TOTO Shuppan, 2001.

Sakamoto, Kazunari. "The House as Architecture." *The Japan Architect; Architecture - Era - Discourse*, Spring 2016.

Schittich, Christian, ed. *Housing in Japan*. Munich: Edition DETAIL, 2018.

Sennett, Richard. "The Public Realm." In *The SAGE Handbook of the 21st Century City*, 585-601. 55 City Road, London: SAGE Publications Ltd, 2017.

Shinohara, Kazuo. "Beyond Symbol Spaces. An Introduction to Primary Spaces as Functional Spaces." *The Japan Architect; Architecture - Era - Discourse*, Spring 2016.

Tsukamoto, Yoshiharu. "Void metabolism." *Architectural Design* 82, no. 5 (2012): 88-93.

Zumthor, Peter. *Peter Zumthor: Atmospheres*. Birkhäuser, 2006.

## Chapter 4.

## *Fluid Living*

The study in the previous chapter has revealed a common concern that these reference architects were driven by, during their creative process which led them to design spaces that are effective in introducing interactions and in engaging the user in the architecture as well as evoking curiosity, appropriation and a sense of place. Through relationships of forms and objects; they used ambiguity, complexity, duality imposed within a framework of historical consciousness. They successfully introduced a legible contradiction to the known, to the habitual and to the conventional all the while maintaining subtle signs that refer to the departure point. The studies in this chapter aim to regroup, under three concepts, the intentions related to the search of such spatial outcome, in residential architecture, especially of shared living. These three intentions are organized with the ambition to cover a wide range of concerns on the shared living space, from the interaction of the building with its surroundings to its intrinsic

multiplicities down to the small details.

The concepts are demonstrated and explained through generic actions that create them. These actions are generic due to their potential to be formally reinterpreted in each project, while maintaining the principal intention. Their potential of a wide range of formal interpretation introduces a blurring of borders between them. One action turns into the other if manipulated in a certain way, or two actions interpenetrate and become one.

Through deconstructive formal analysis of case studies that hold ambiguous and contradictory qualities, this chapter intends to uncover what is usually an unspoken aspect of architecture, what remains intrinsic, perhaps due to its potential of subjectivity. The intention of this work can be clarified by quoting Eisenman as he introduces his article "From Object to Relationship II";

*"It is intended to be as much an introduction as it is an exploration, in that it is not a definitive presentation of a critical method; it merely represents some fragments, without a general matrix, of work in progress."*

## *Lexicon*

The three concepts explained in this chapter are 'layering,' 'inclusion,' and 'degrees of intimacy'. Out of the rich terminology of architectural thinking that resulted from the literature review of the third chapter, these three keywords were chosen because of their ability to regroup the spatial characteristics and organizational concerns that were common to all reference architects, all the while allowing for a certain liberty and numerosity in the actions that are used in order to achieve those intentions. These three concepts are explained through a lexicon, of keywords that represent actions and intentions of spatial outcome, that is open to grow and branch further.

# CONCEPT

# ACTION

# SPATIAL OUTCOME

*Layering*

*Grouping*  
*Verticality*

*Mainspace*  
*Interruptions instead of*  
*divisions*  
*Living Landscape*

*Inclusion*

*Porosity*  
*Maze of thresholds*

*Dissolve the boundary*  
*into border*  
*Multilayered space*

*Degrees of*  
*Intimacy*

*Transition*  
*Partition and connection*  
*element*

*Choice of interaction or*  
*isolation*  
*Consciousness of*  
*community*

## LAYERING

This concept deliberates upon how **privacy** is created. How the individual relates to the whole. As argued by Niklas Maak in his book *Living Complex*, the concept of privacy that prevails in Western Europe and in America originates from an aggressive concept rooted in the Latin word '**privare**', which means "to deprive", "to rob", therefore defining the action of being in private as something that is robbed from the community, which, thus "needs to be defended against the intrusiveness of the others."<sup>1</sup> This approach to privacy is strongly paralleled by the notion of 'constructing the self' in Western thinking, which is seen as a **distinction of the self** from the world.

In Japanese architecture, it is possible to find an alternative to the Western concept of **property** where, following that of privacy, an individual takes possession of a piece of what previously belonged to a community, and then needs to defend it from invasions. In Japanese tradition, the private cell (or the house), is not created by detachment

from the common space (or from the city), but rather, the common space is born with the **grouping** of private cells. In this process, the individual comes first and gives life to the collective, rather than splitting off from it which, inevitably gives a negative connotation to the concept of individualism. This way, the individual does not need to distinguish himself by contradistinction - by closure -, but rather by opening up to the collective as an already defined being. Such social relationship in the formation of privacy within the collective is strongly mirrored in the architectural composition of the private cells in collective living environments. In modernist examples of shared living in the Western culture, the cells are created by splitting off pieces from the whole, the initial empty box. This operation does not leave space for options other than the use of a solid wall as a boundary between public and private. Coupled with concerns of functional and economical efficiency, this process of architectural composition by separation

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1. Maak, *Living Complex*, p.167.

leaves behind a corridor which is allowed just enough space for its function; the passage. In this case, collective life needs to be confined and predefined in designated areas, leaving no space for interpretation or gradual development of interactions.

In Kazuo Shinohara's architecture, as well as Kazunari Sakamoto's first phase projects and Hiroshi Hara's residence, we see a '*grouping*' of private cells that give birth to the common space, in these cases; for a family to share. Here, the act of grouping (also called box-in-a-box by Sakamoto) allows for the remaining negative space, which these architects have called 'fissure space' or '*mainspace*', to maintain the intention that is to 'put together' to create the community, instead of robbing from it. Functioning as a space that houses the community activities and the vitality of the group, the mainspace also subtly integrates the distributive functions into its composition, stretching

throughout the height of the project. This is where the examples by these architects offer another action that gives the mainspace its most important characteristic; *verticality*. Serious attention has been paid to the composition of horizontal slabs that inevitably divide this space. In these examples, the 'floors' of the upper levels do not exactly follow the outline of the mainspace, become *interruptions, instead of divisions*. This way, the verticality of the mainspace is maintained, and results in a vertical communication inside the building, in addition to the more commonly found horizontal communication. Furthermore, the disruptive character of the horizontal slabs on the upper floors generates nooks with different levels of intimacy. The actions of grouping and verticality help create a *living landscape*, in addition to the mainspace with interruptions instead of divisions. The term 'living landscape' describes a residential space that bears certain qualities of a 'village'. What the living landscape selectively inherits from small

villages is the ability to build community beyond the family boundaries while "taking away the claustrophobia from the small-town notion of community and linking it with the urban promise of liberating anonymity."<sup>2</sup>

The term 'layering' refers to the multiplicity deriving from the additive characteristic intrinsic to the notions and intentions expressed here, especially the intention to revisit the chaotic nature of the city and, in a manner, recreate it inside the living space.

The examples of shared living that are analyzed in this chapter are projects that use these concepts and actions in a collective living project.

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2. Maak, Living Complex, p.148.

## INCLUSION

The creation of the individual - mentioned previously, that prevails in Western culture - that is partitioned off from the collective, also gives a strong importance to the vertical element and to its solid and impenetrable structure which is needed in order to defend the private property, be it a cell unit in a massive housing block or a villa in a village. The concept of 'inclusion' aims to discover alternatives to this defensive relationship between the dwelling space and its surroundings. This purpose is based on the hypothesis that the building, in this case, that contains residential activities, not only has a morphological impact on its surroundings, but that it also interacts with it. There is a cultural interaction between the building and the neighborhood that has the power to build community, to participate in the community or to close itself to it.

The traditional Japanese house again offers the opposite example, to the solid walls that make up the house in Western culture, with its fragile and flexible vertical elements, is more

dedicated to protecting its inhabitants vertically, from the forces of nature, rather than horizontally, from exposure to community.<sup>3</sup>

The concept of inclusion aims to study the mixture of the two opposites and to find a balance to culturally integrate our living spaces into cities. Based on Richard Sennett's definition of borders and boundaries in his article "Quant. The Public Realm", the living spaces that are in demand for the future need to **dissolve the conventional boundary into borders**. As Millennial generation has explicitly and repeatedly expressed in many occasions, the shared living environment not only needs to allow for a community to form inside of it but also needs to interact and include the neighborhood. This desired interaction needs to be studied especially at the edge of the building, that is its outer shell. Referencing natural ecologies, Sennett explains the two different kinds of edges that are borders and boundaries.

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3. Maak, Living Complex, p.169.

*“Borders are zones in a habitat where organisms become more interactive, due to the meeting of different species or physical conditions. The boundary is a limit; a territory beyond a particular species does not stray.”<sup>4</sup>*

This metaphor can be almost literally transferred to architecture and to cities. While the border is an active zone of exchange between the interior and the surroundings of a building, it is an open condition that is full of events while a boundary is closure due to inactivity; a wall, a container that holds things in (or out). Openness mentioned here is intended as a condition; it is never simply a free flow but it is more similar to a porous membrane. It is open but also selectively resistant. We can find this **porosity** in the outer shell of a building as a

physical characteristic, such as the case study Songpa Micro Housing where the ground floor is part of the city through the public nature of the function of the spaces as well as through the absence of a continuous facade, which on the upper residential floors is only made of thin metallic slats. What separates the inhabitants and the private units from the street is **a multiplicity of spaces that gradually become the inside**; the outer shell partly separates the balconies of private cells from the city, which are separated from the cells by wide openings. The spontaneous use of large openings and semi-open facade structure, slightly distanced by an inhabited semi-open space functions as a highly effective protection while keeping the relationship between the inside and the outside alive, the inanimate solid wall becomes an active edge; a border, a filter. What keeps this border alive is how contact between adjoining layers is free, we can touch, hear, smell the next layer. This is the exact contrary of the building that is

surrounded by steel-framed plate-glass wall with claims of openness while they shut off all communications between the inside and the building's surroundings, often creating a dead space around it.<sup>5</sup>

*“Making buildings more porous will be one of the great challenges of the 21st Century architecture: porosity could make buildings more truly urban.”*

*Richard Sennett, in “The Public Realm”*

4. Richard Sennett, “The Public Realm,” in *The SAGE Handbook of the 21st Century City*, p.5. (London: SAGE Publications Ltd, 2017).

5. Sennett, “The Public Realm,” p.6.

*“Any boundary is more effective when the trespasser loses his bearings: the maze, the many-layered filter, is a better boundary than the wall which, once overcome, allows the intruder to access the innermost part. This dissolution of the boundary in a multilayered space can provide much more effective protection than that offered by pathetically thick walls and doors.”*

*Niklas Maak, in The Living Complex*

Accessing the private core of a living space by passing through a **maze of thresholds** is another effective way to create a filter zone instead of a wall. Porosity here, is also obtained through the **multilayered space**, which gives the living space a fruitful heterogeneity and complexity without closure. In the case study Yokohama Apartments the experiment to go beyond issues of isolation or seclusion when organizing the house has, in this case, resulted in spaces that can not be assigned to a certain typology. The ground floor space belonging to the house is marked with subtle signs that depend on intuition more than robustness. It can be considered as "street", therefore "outside" and "public", just as well as it can be considered as the "kitchen" of the house because of the private cells that surround it by creating a porous ensemble. It can be a kitchen without walls; or a square with kitchen. When we go beyond the vocabulary of 'kitchen' and 'street' that come to mind at first glance, and leave space for interpretation, we see something new happen;

*"... street and living space become one; the room grows into the city."*

*Niklas Maak, in The Living Complex*

Housing parties and exhibition as well, the ground floor is the place of communal life. It is the lobby for private cells which include necessary equipment to give the inhabitant the choice to whether engage in the communal life on the other end of the light staircases or to enjoy the quiet of their room. What successfully gives the rooms the sense of protection and privacy when needed, is not a thick wall, but it is how the architects have managed to use a maze of thresholds vertically, that going up, lead from the communal are to the individual apartments.

## DEGREES OF INTIMACY

Taking a closer look at the vertical distribution of Yokohama apartments, we can see that the thresholds that make up this maze are introductions to fragments that represent a different level of intimacy each.

The succession of these fragments is connected by a distributive element; in this case, a light and steep staircase which doesn't divide or disturb the integrity of the communal area, rather creates opportunities for interaction. In this organization, the distribution element is not simply a passage, but it is the element that embodies a **transition** that occurs between different degrees of intimacy. The ritualistic character that this transition imposes on the act of 'going to one's own room', strengthens the sense of privacy by gradually increasing it throughout the way. This staircase which can be described also as a transparent vertical corridor, goes through a set of spaces, starting from the less personal (public) to the most intimate; that includes sleeping and self-caring spaces. In its totality, each

layer/ fragment with its own character of privateness/ publicness/intimacy; gives a spatial richness to the dwelling complex.

Another example where the ritual of transition effectively strengthens the sense of privacy when passing from public to private space is LT Josai share house in Nagoya, Japan. Following a different approach toward its surroundings, this project appears to be almost the opposite of Yokohama Apartments. However, it makes use of the same instrument in order to successfully create a wide variety of degrees of intimacies on the inside, where private cells which would seem to be directly exposed to the shared spaces are accessed through a maze of thresholds that create the transition and reinforce the liberty of detaching oneself from the community **when the inhabitants choose to**. This is the most important characteristic that separates these case studies of shared living from the examples of community living of the 20th Century. Where previously these projects aimed at

minimizing the private in order to maximize the common spaces, they did so without granting the liberty, to their inhabitants, to choose between interaction or isolation.

This liberty to choose to whether interact or to be alone, or the opportunity to choose to what extent one desires to interact, is made possible by the presence of spaces characterized by different degrees of intimacy. When these spaces are characterized by neutrality, they allow inhabitants to playfully reinterpret and reconquer their living space on a daily basis.

Finally, an action that enables the multiplicity of intimacy levels - thus the efficiency of the living environments discussed in these case studies - is the **partition and connection element**. This action simultaneously works as a barrier and a connection within the shared space. The architectural elements that serve this purpose are usually invisible barriers; they allow for a visual connection while limiting physical contact and accessibility. An efficient

example of this element is the 'void'. The first element we studied in this chapter; the mainspace is composed of void, a negative space which, thanks to its verticality, visually connects different levels while limiting the direct access between them, thus allowing for the transition element to be the only access to different levels of intimacy. Eventually, the connection created by this element of separation evokes a **consciousness of the community that surrounds the individual** within the shared space. Another element that embodies this paradoxical action is an opening, when used on the interior, between different levels of intimacy (instead of between inside and outside). Apparent in Songpa Micro Housing, the openings that are placed between spaces of different levels of intimacy, allow for a limited communication between these levels. The multilayered nature of these openings helps maintain a certain level of separation between two spaces.

*“Architects such as Ryue Nishizawa, Michael Maltzan and Sou Fujimoto designed collective residential complexes- to which this book devotes a separate chapter, because, unlike in classic residential communities, the occupants of those complexes are not squeezed together into common spaces, come what may. Instead, they live in an assembly of autonomous cells where the private and the collective interpenetrate, complement, and reinforce one another in new ways.”*  
Niklas Maak, in *The Living Complex*

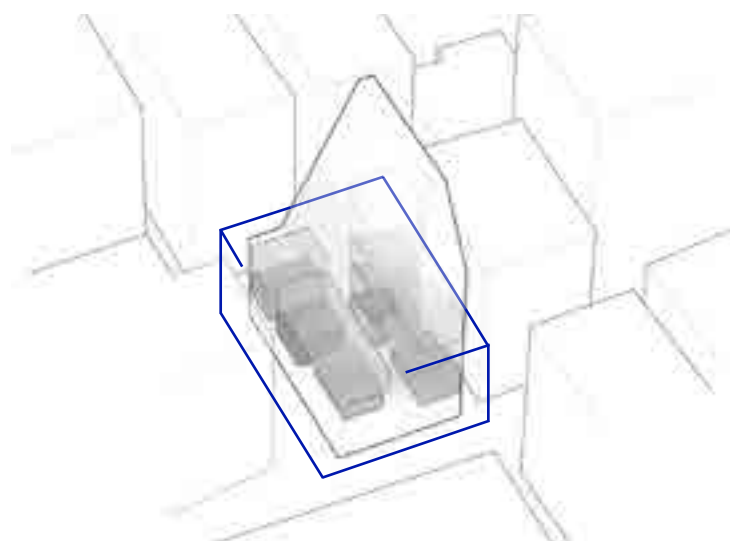
*GRADUALITY*  
*dualisms blurring*  
*MULTIPLE LAYERS*  
*liberty to choose*

private me on my own co-isolation	co-isolator exmple element: walls
not so private me and others everyone on their own conscious co-isolation aware of the others	visual interactions co-isolation breakers windows low-walls felixibility introduced by: curtains
not so common alone together voluntarily obatined privacy common nook	silent interactions comfortable furniture spread across the space but connected flexible element: vicinity
common me in a group bringing people together	interactions focal point present not too big (compared to 'me') limitinig the dimation without visually isolating example element: floating planes
public me in a crowd not necessarily together	not necessarily interacting dispersed too big (compared to 'me') piazzas, stadiums, cinemas unlimited, stretching out to the city

The liberty to choose the level of interaction or the possibility to appropriate and interpret one's living environment is the foundation of a desirable shared living situation, especially today where the well-defined boundaries based on the convictions of the past such as 'house as a place of intimacy' and 'bedroom as a place of non-communication', 'no one can enter the bedroom without permission' are disrupted by the revolution in communication technologies.

*“Bed is no longer the place where you rest after work or have fun, but rather the workplace itself, from which people mail, sell, make phone calls, google. The bed resembles a soft desk and the most intimate spot has become a public space of communication.”*  
Niklas Maak, in *The Living Complex*

# LAYERING

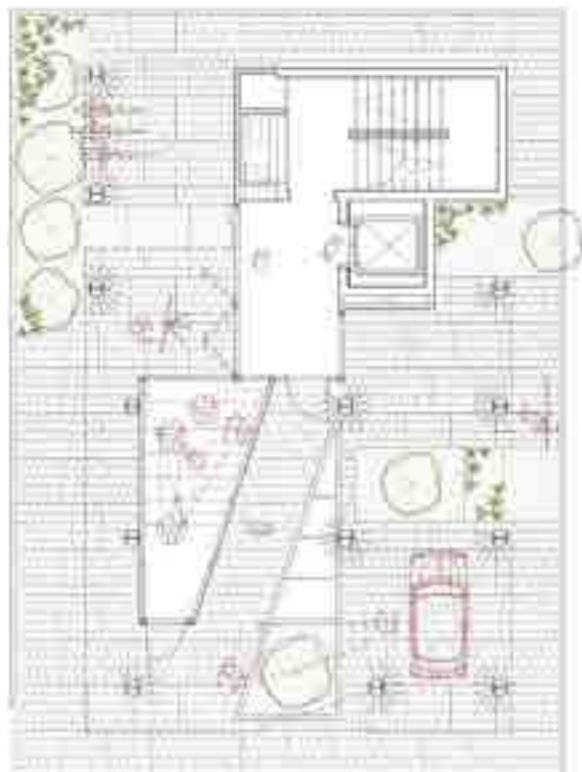


*Through a focus on the  
first and second floors of  
Songpa Micro Housing.*

# SONGPA MICRO HOUSING

GENERAL INFO	Architects	SsD, Single Speed Design
	Location	Seoul, South Korea
	Completion date	June 2014
AREAS	Storeys	8
	Plot Area(sqm)	-
	Gross Floor Area(sqm)	515
	Floor Area Ratio (FAR)	-
USE	Number of Residents	11
	Number of Units	8
	Other Functions Included	unprogrammed shared spaces, a café and a toy shop in the basement, a gallery on the second floor
ADDITIONAL INFORMATION	Total floor area of residential spaces; 281sqm, of communal spaces; 234 sqm, cost per sqm of floor area;1593 eur	
SOURCE	"Songpa Micro Housing / SsD" 11 Dec 2014. ArchDaily. Accessed 31 Jan 2019. < <a href="https://www.archdaily.com/576302/songpa-micro-housing-ssd/">https://www.archdaily.com/576302/songpa-micro-housing-ssd/</a> > ISSN 0719-8884 ssdarchitecture.com Images courtesy of Ssd © SsD.	





Ground Floor Plan, First Floor Plan and Section.  
Ground floor includes a micro-auditorium and a  
cafe that extend into the basement.

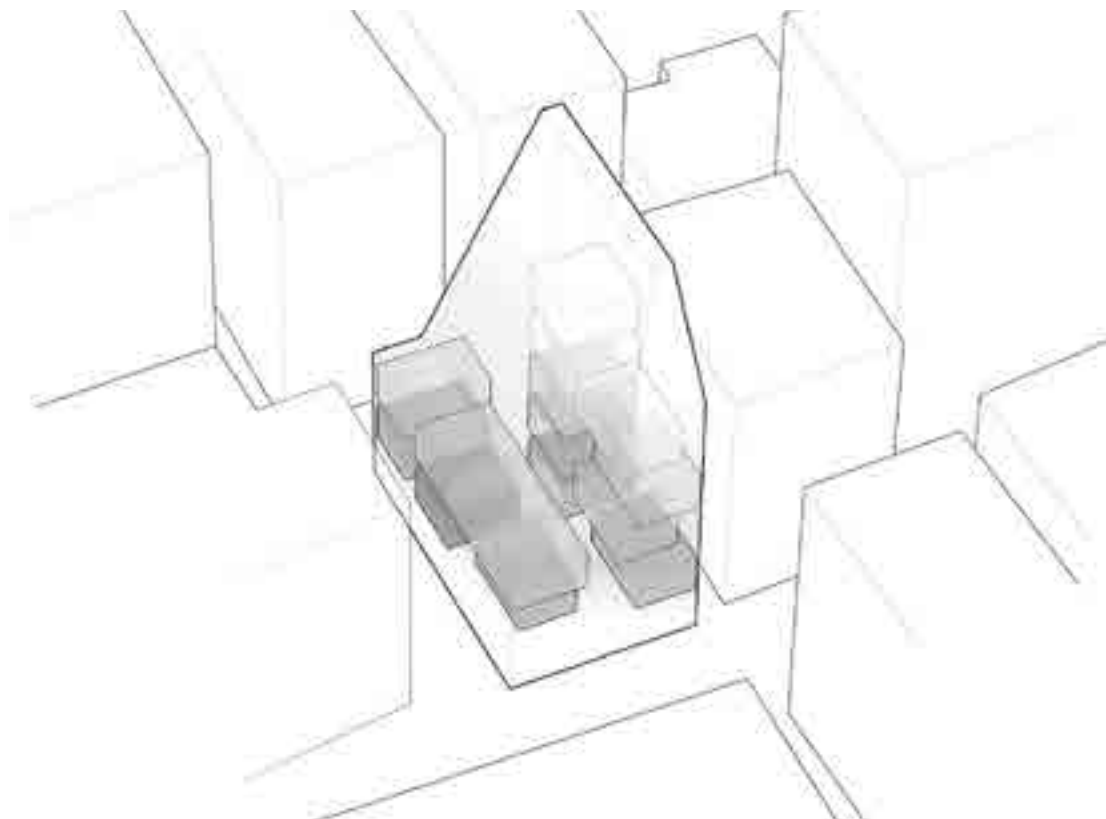




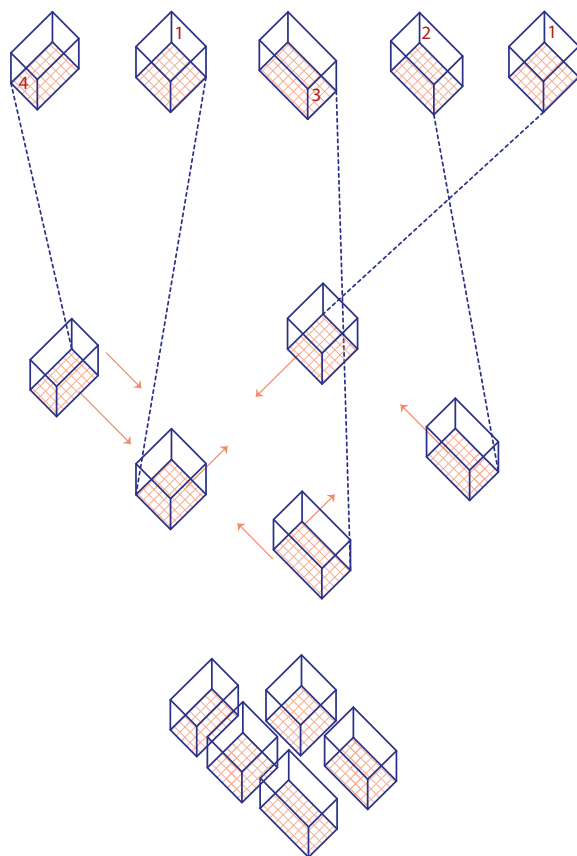
The upper floors are composed of unit-blocks that can be used for different programs such as galleries or work spaces if needed.



Third Floor Plan and diagram of unit-blocks. The unit-blocks can be recomposed into larger compositins or used as single-units.

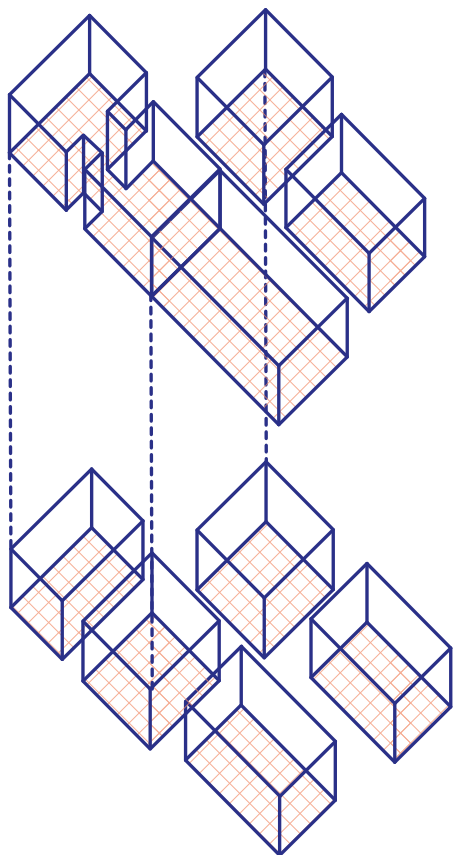


# Grouping

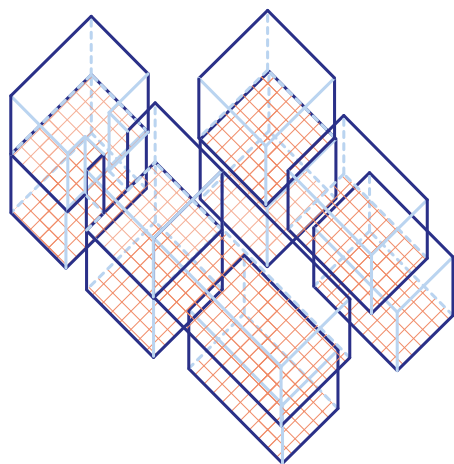


Grouping of units to create the first floor.

*Unit-blocks are brought together to create each level. These units are grouped in a manner that leaves extra space between each unit.*



Exploded axonometric view of first and second floor units.

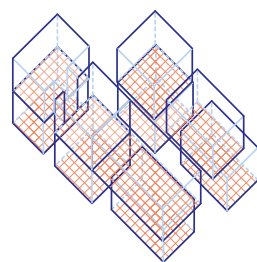


First and second floors

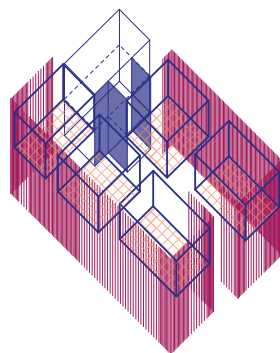
# Main space is born

*The negative space that remains in-between the units constitutes the less defined shared spaces.*

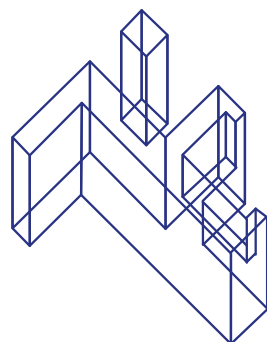
*It is void, vertically and horizontally, untill it is interrupted by horizontal elements.*



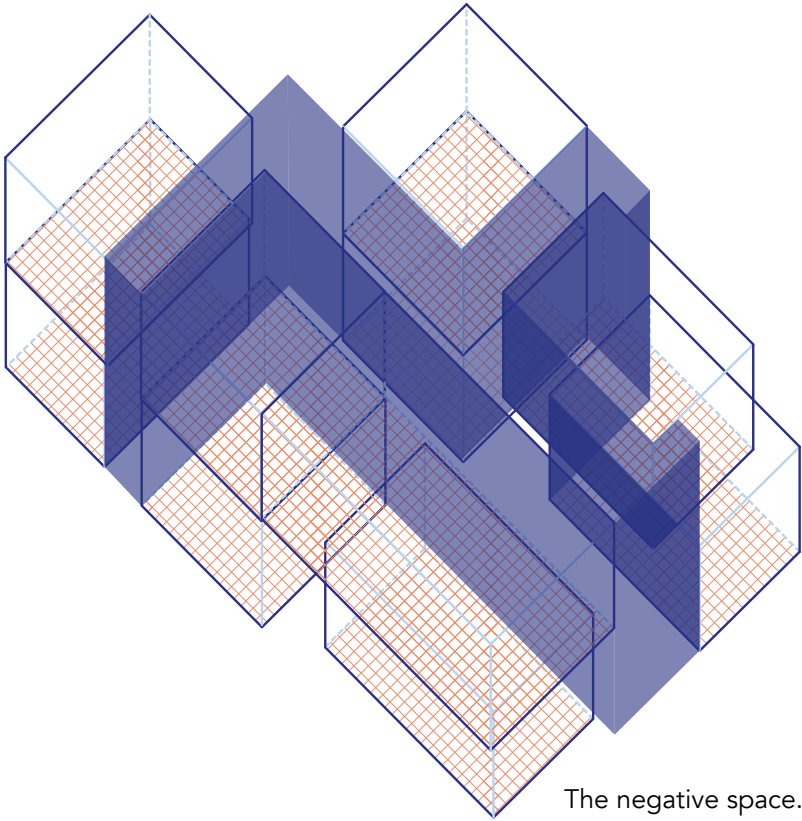
Grouped units



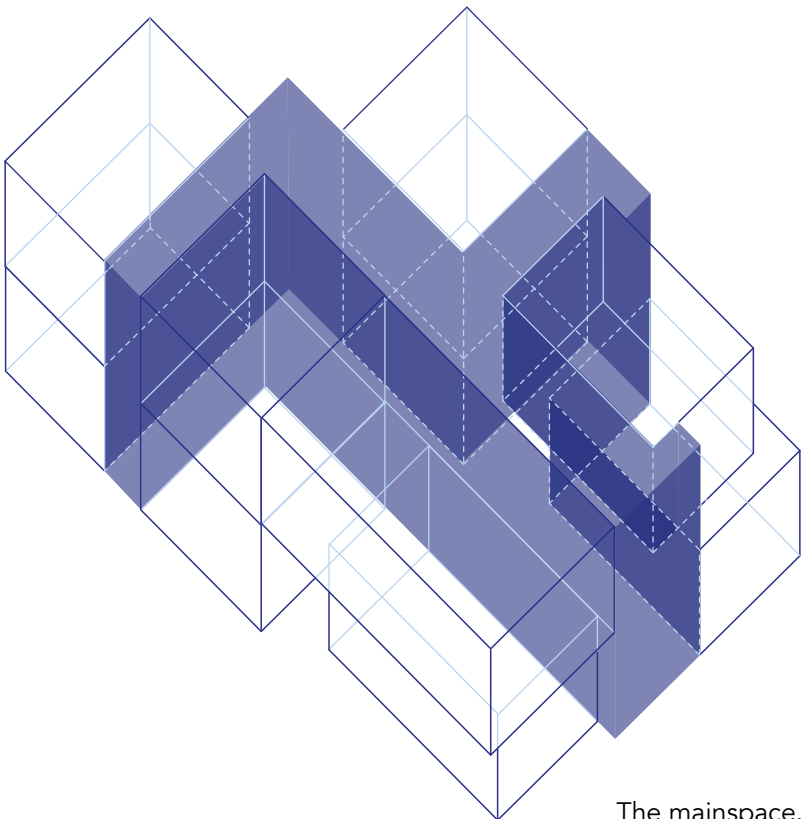
are enclosed in a shell



and negative space remains in-between.

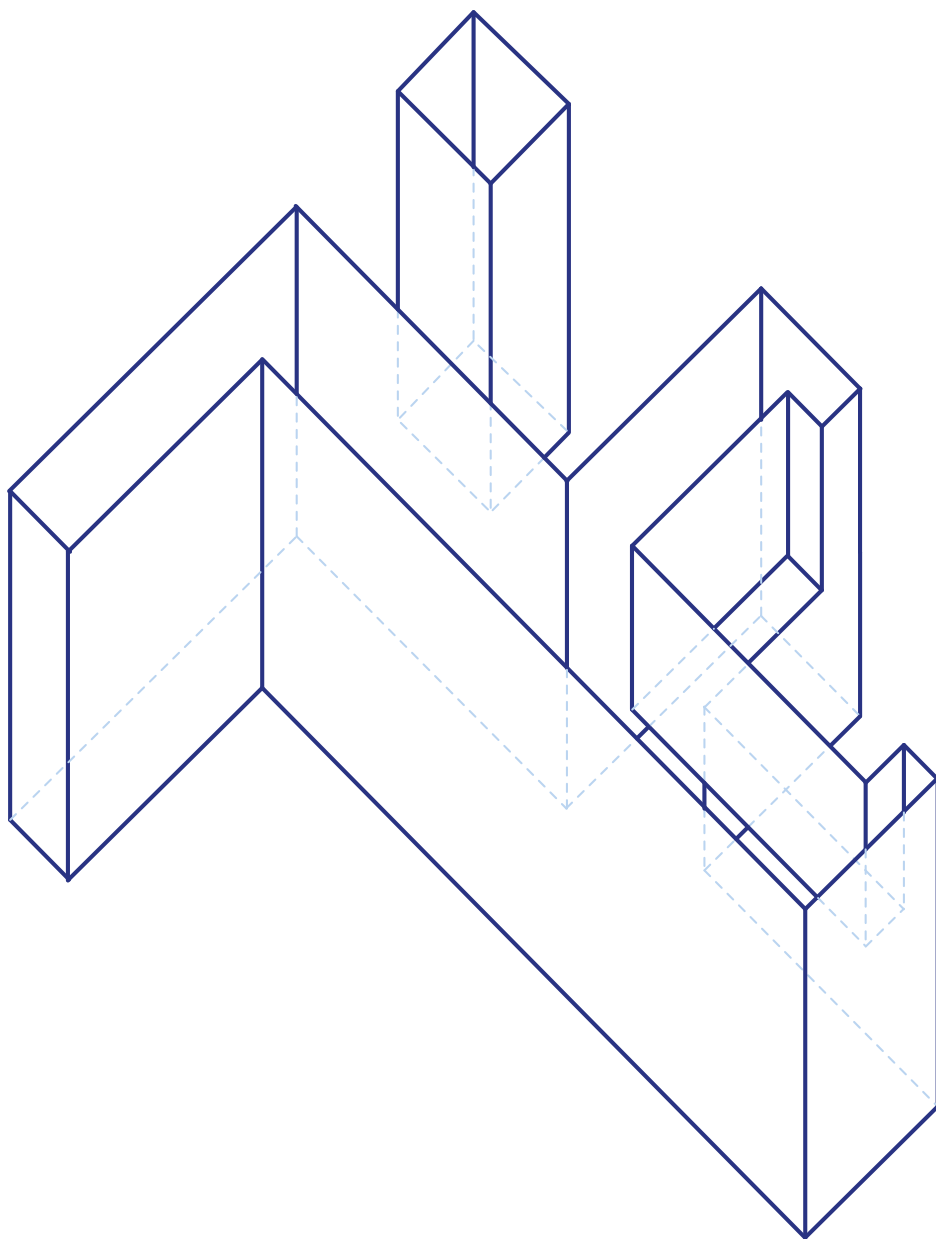


The negative space.

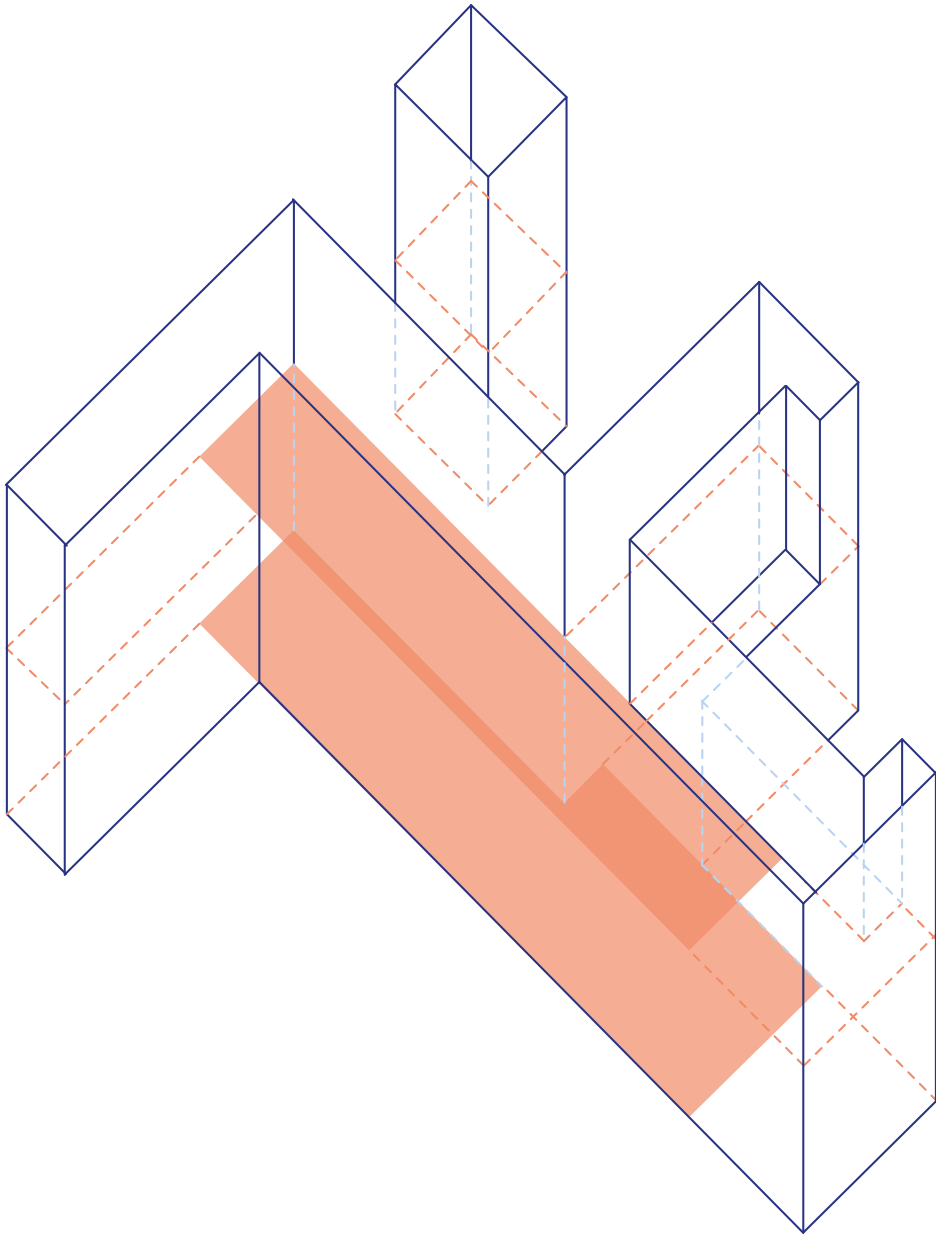


The mainspace.

Uninterrupted mainspace.



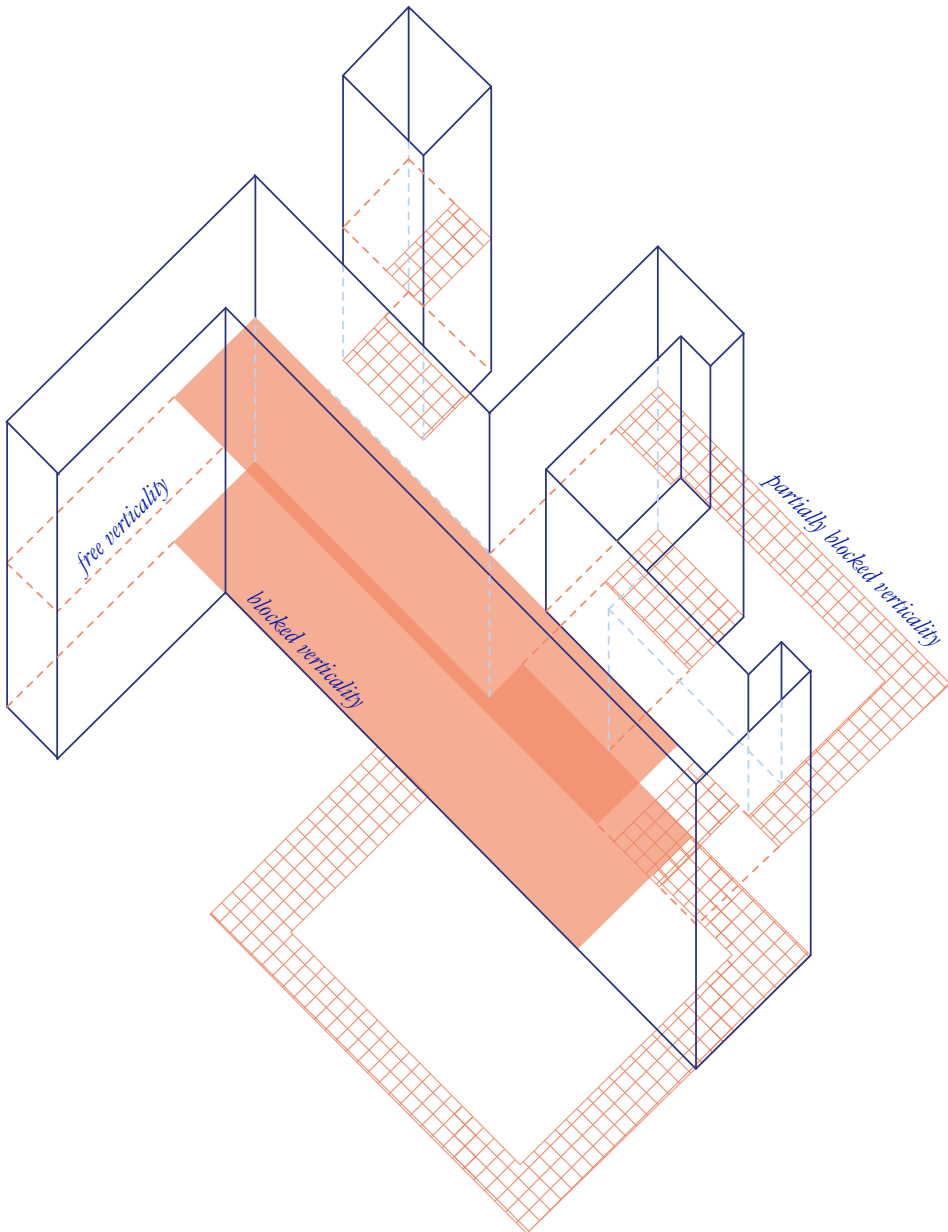
Mainspace with disruptions  
intead of divisions.



Mainspace and distructive  
elements of verticality.  
The outline of the floors  
do not follow the outline

of mainspace. This way  
mainspace is not divided,  
but remains a unity.

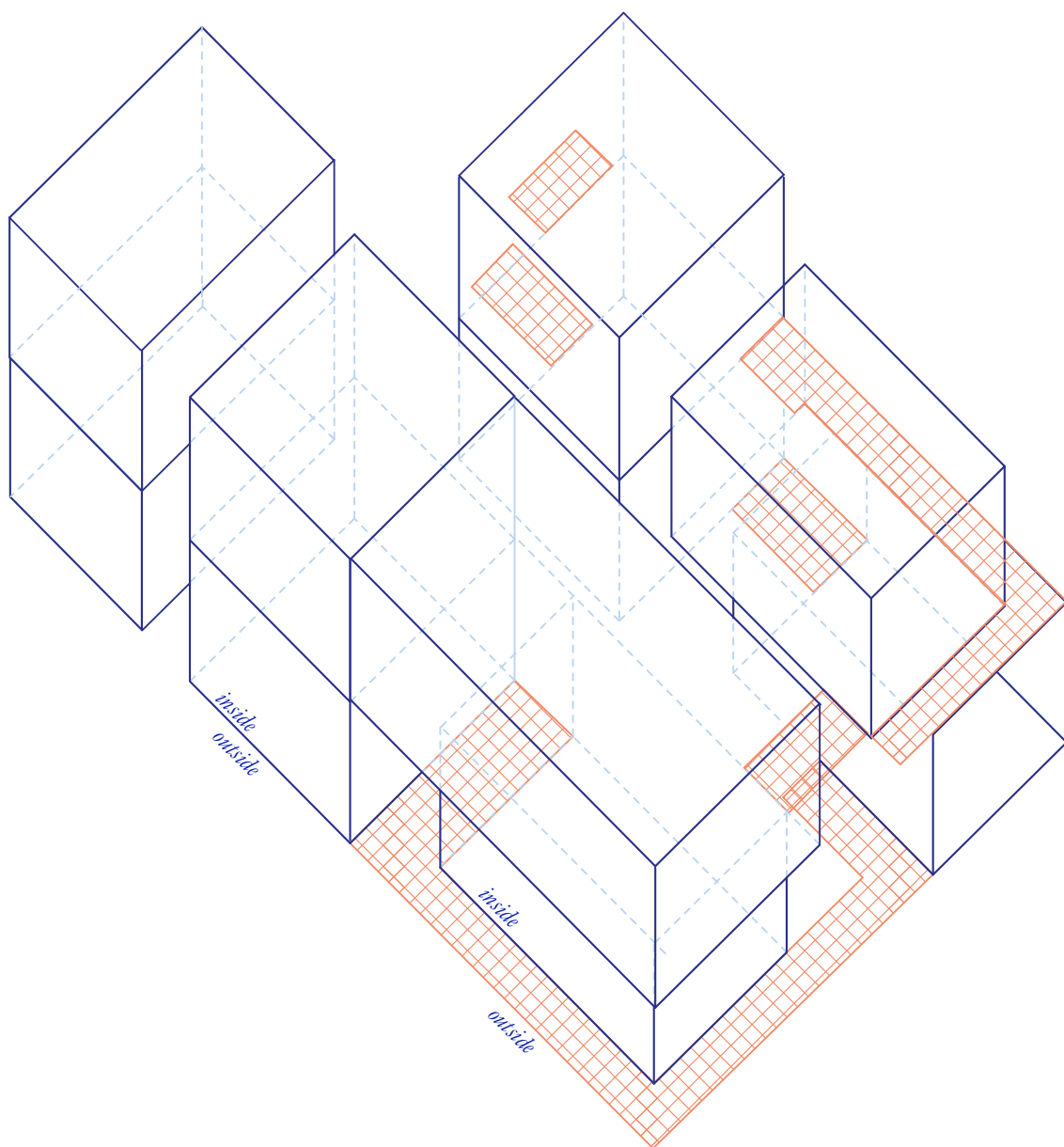
Mainspace and three types  
of disruptions.



Mainspace with three kinds of disruptive elements; first, the solid interruption at the core, second is semi-exterior and perforated interruption and third, absent. Thus three

types of *vertical relationships* occur in the mainspace; one that is completely blocked, one that is partially blocked, and one that is completely free.

## Unit-blocks and semi-disruptions.

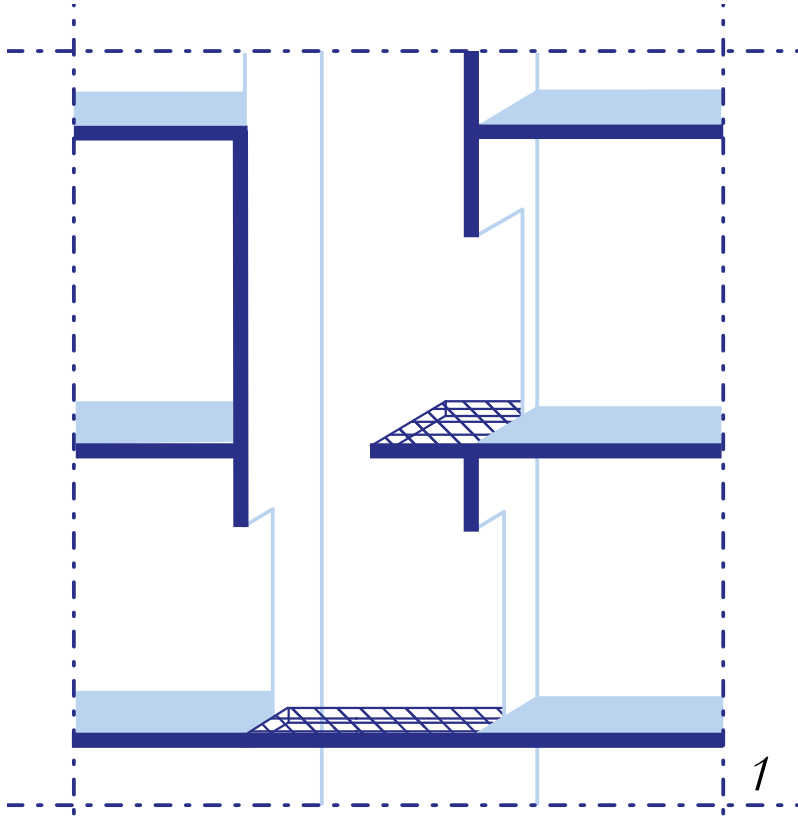


Units represented with the semi-open spaces on each floor. These spaces are located between private units and the outer shell, thus

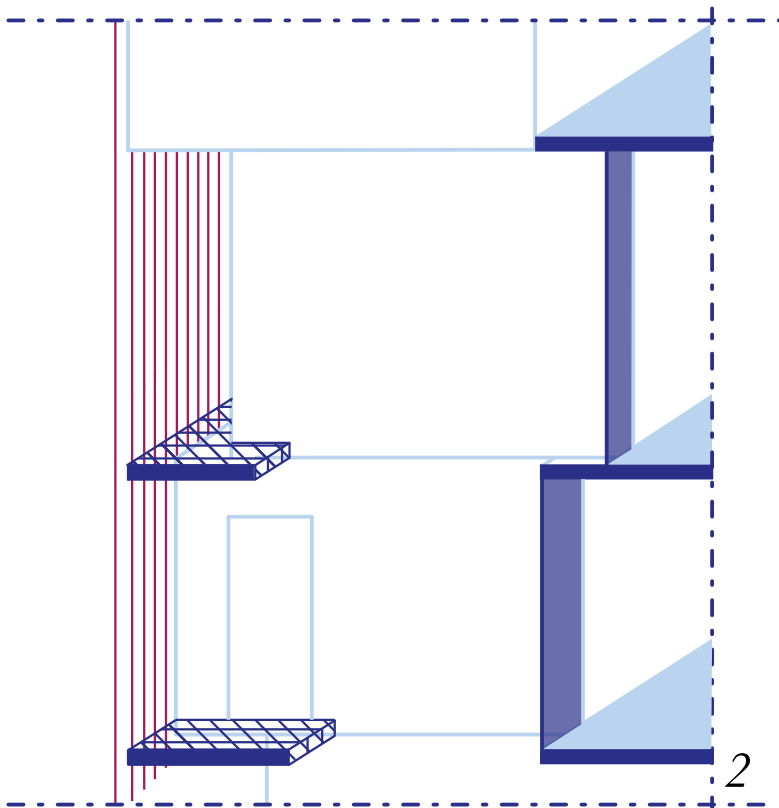
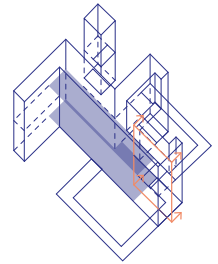
between closed and open elements. The access to these spaces is mostly limited to the surrounding units.

# Verticality

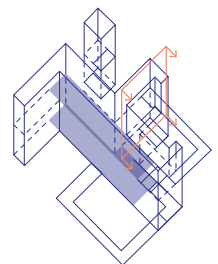
*The organization of 'floors' within the main-space that serves for distribution and shared spaces, allows to maintain the characteristic verticality of the main space, contributing to a consciousness of surrounding space that spans vertically as well as horizontally, giving place to different interactions within.*



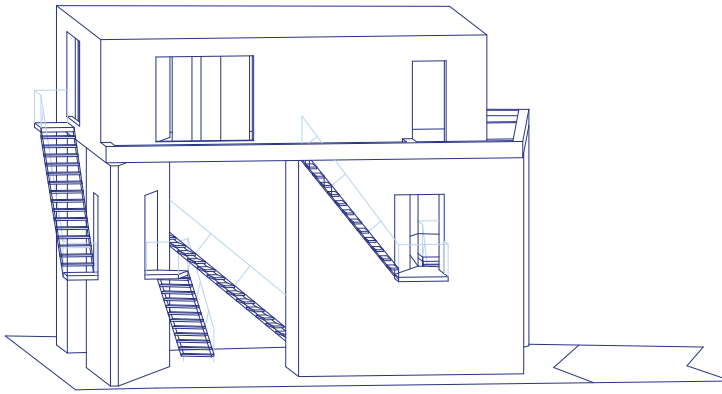
*section 1*



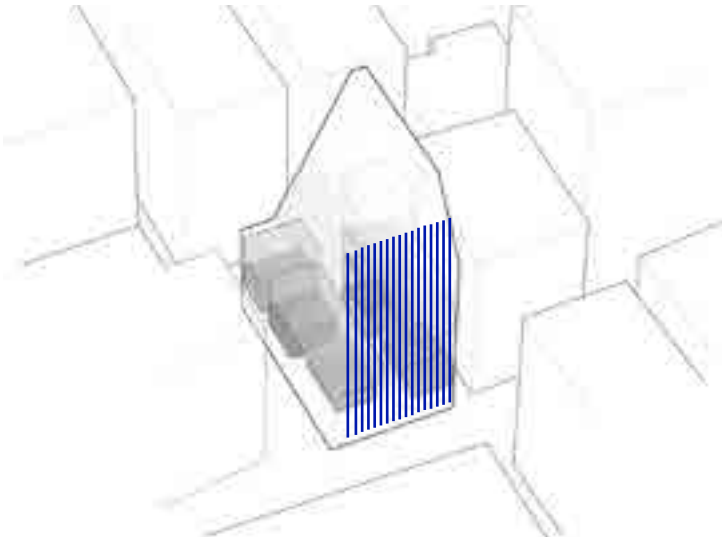
*section 2*



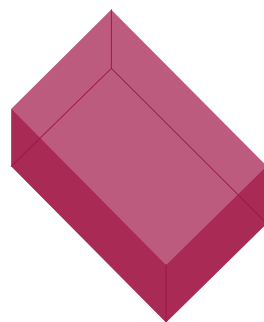
# INCLUSION



*Through a focus on the facade of Songpa  
Micro Housing and the ground floor of  
Yokohama Apartments.*



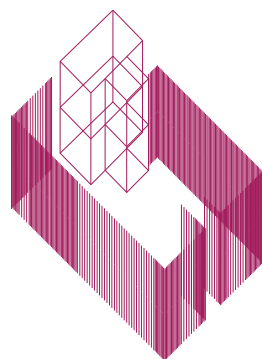
# Porosity



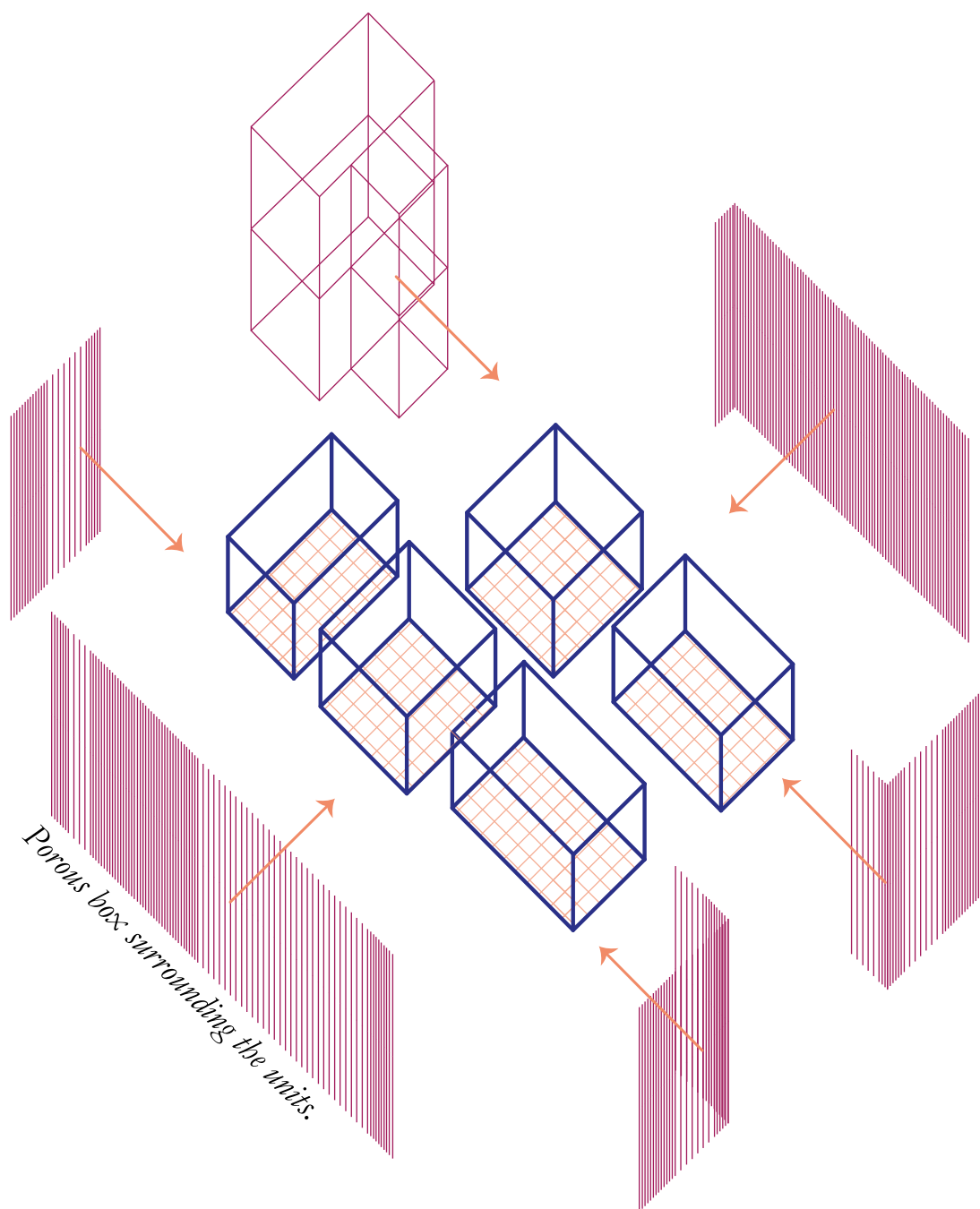
Closed box option where boxes are inserted within solid boundaries.

*or*

*The unit-blocks of Songpa Micro Housing, once grouped around the main-space, are framed with a shell. Subtly distanced from the unit-blocks, this shell not only delineates the mainspace but also adds to it. Additionally, its porous nature allows to maintain a cultural unity between the core of the house and its surroundings.*

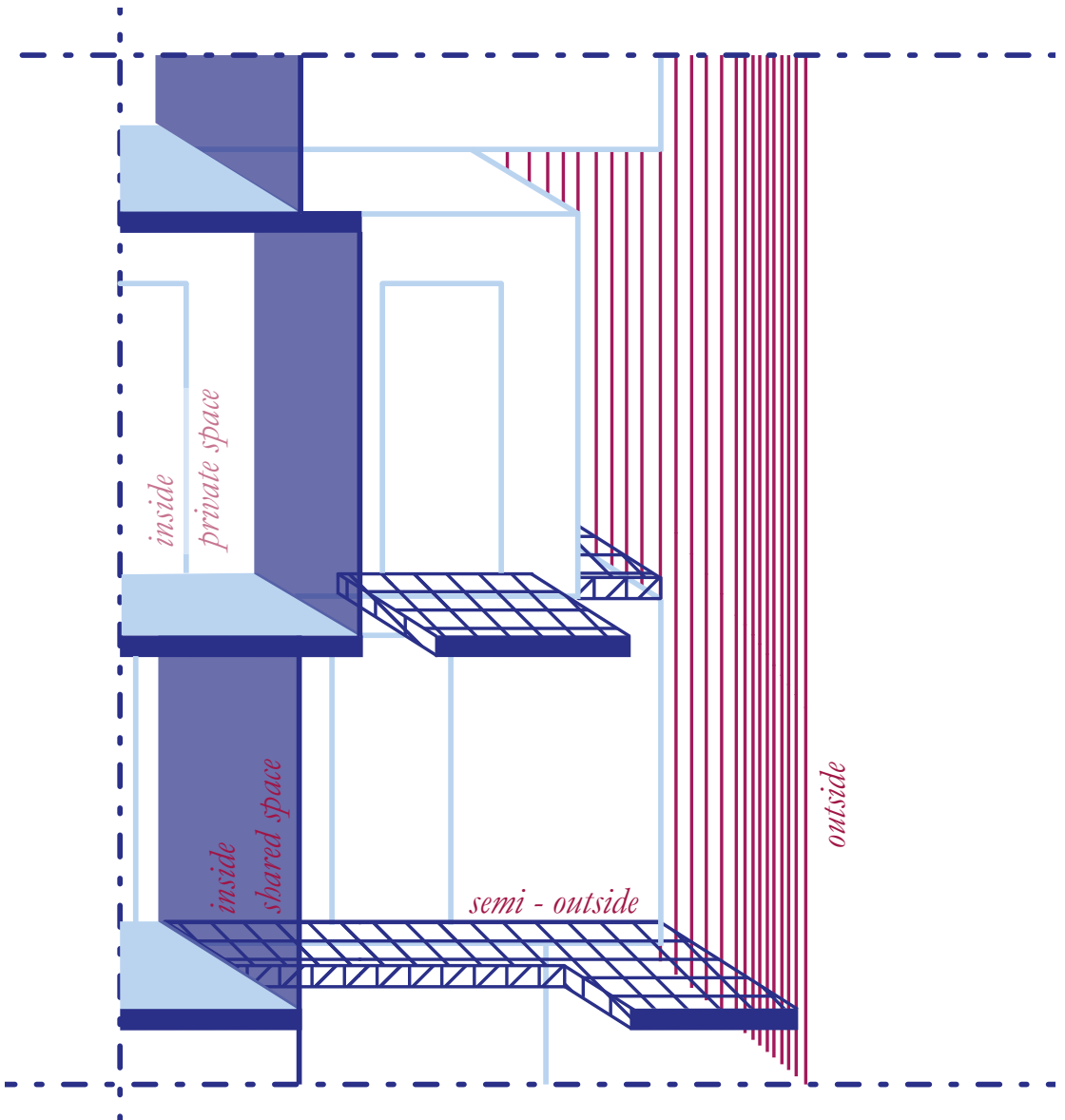
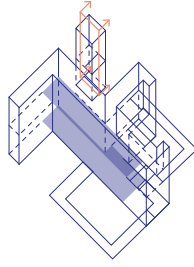


Porous box option that envelops the units like a breathable fabric.



# Multiple Layers

*The porous shell leads to the semi-outside space which connects to the interior space of common living which give access to the private unit-blocks. These layers are all directly connected to each other at parts, which creates various relationships between inside and outside.*



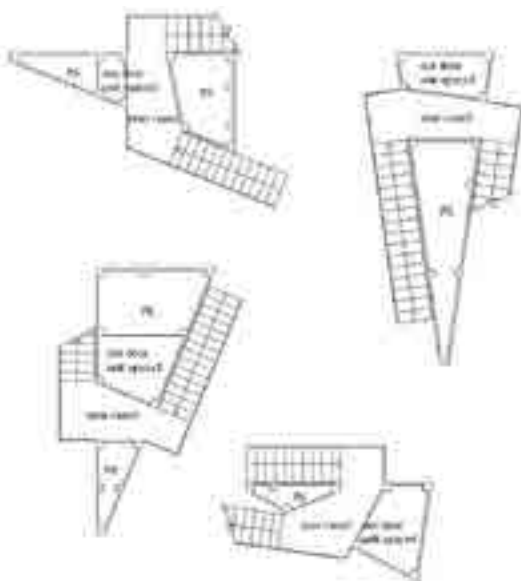
## *Yokohama Apartmens, Yokohama*

GENERAL INFO	Architects	ON Design Partners
	Location	Yokohama, Kanagawa, Japan
	Completion date	2009
AREAS	Storeys	2
	Plot Area(sqm)	152
	Gross Floor Area(sqm)	183
	Floora Area Ration (FAR)	1,2
USE	Number of Residents	4 to 11
	Number of Units	4
	Other Functions Included	On the ground floor; semi-public common area that serves as a studio for working and exhibiting, a sace for performances, lectures and workshops and a communal living room for cooking and socializing.
ADDITIONAL INFORMATION	Total floor area of residential spaces; 111 sqm, of communal spaces; 72sqm.	
SOURCE	"Yokohama Apartment / ON design partners" 17 Dec 2012. ArchDaily. Accessed 31 Jan 2019. < <a href="https://www.archdaily.com/303401/yokohama-apartment-on-design-partners/">https://www.archdaily.com/303401/yokohama-apartment-on-design-partners/</a> > ISSN 0719-8884 Images courtesy of © Koichi Torimura (Taken from archdaily.com)	





Ground Floor Plan



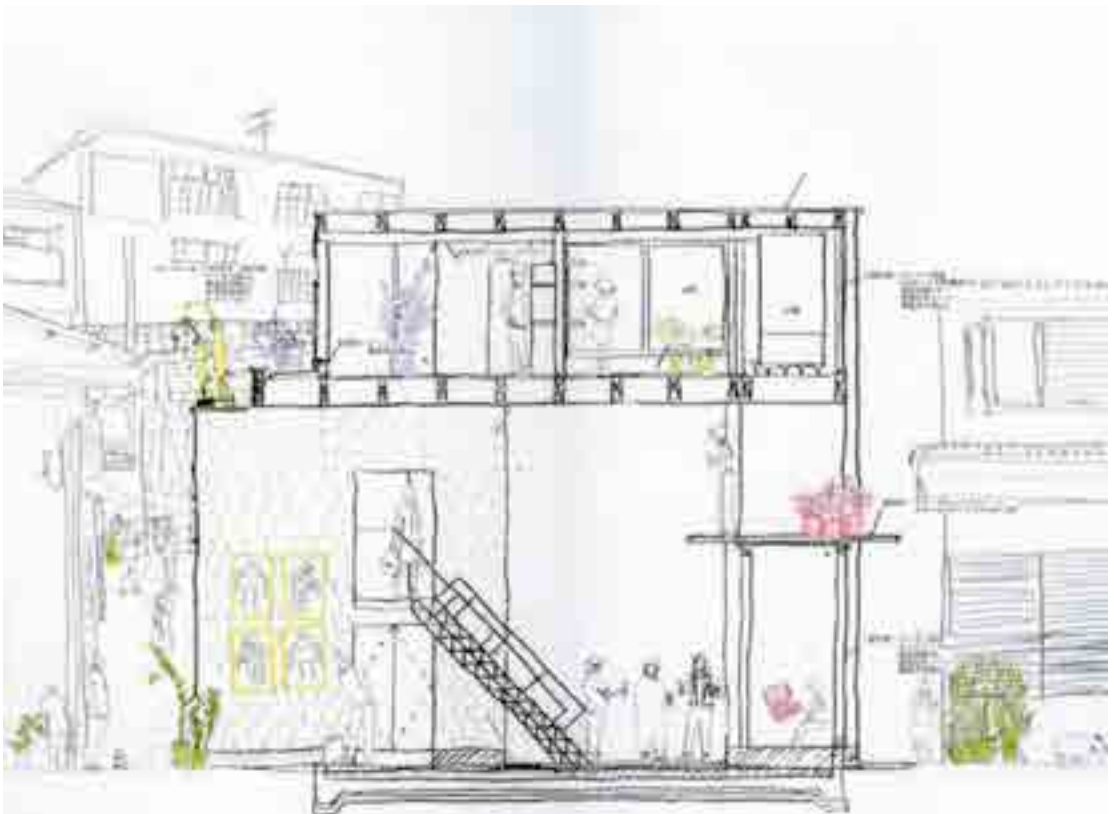
First Floor Plan





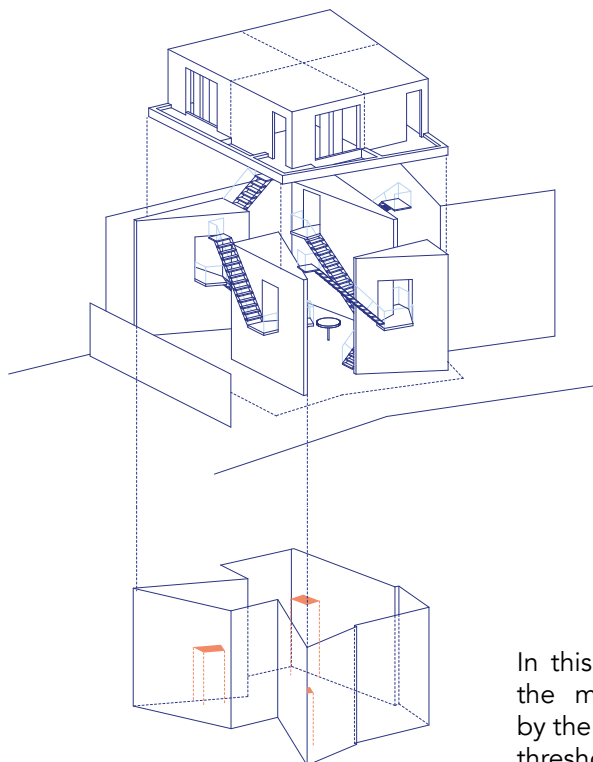
Second Floor Plan

From left to right: Ground Floor Plan, First Floor Plan and Second Floor Plan. Ground floor is made of a semi-public courtyard that is used as a gallery and a workspace, as well as a kitchen and shared living room. The first floor is the vertical continuation of the triangular structures that contain services such as storage and batrooms, while the second floor, in complete opposition to the first two floors with its rectangular and closed shape contains the unit-blocks of private living spaces. Bottom: View from the street and Section. All images and drawings taken from archdaily.com



# Maze of thresholds

*Another way to create a multilayered relationship with the neighborhood is to use a maze of thresholds that replace the ‘entrance’ with ‘transition’. This way, the cultural relationship between the community and inhabitants gradually transform into privacy instead of getting interrupted.*



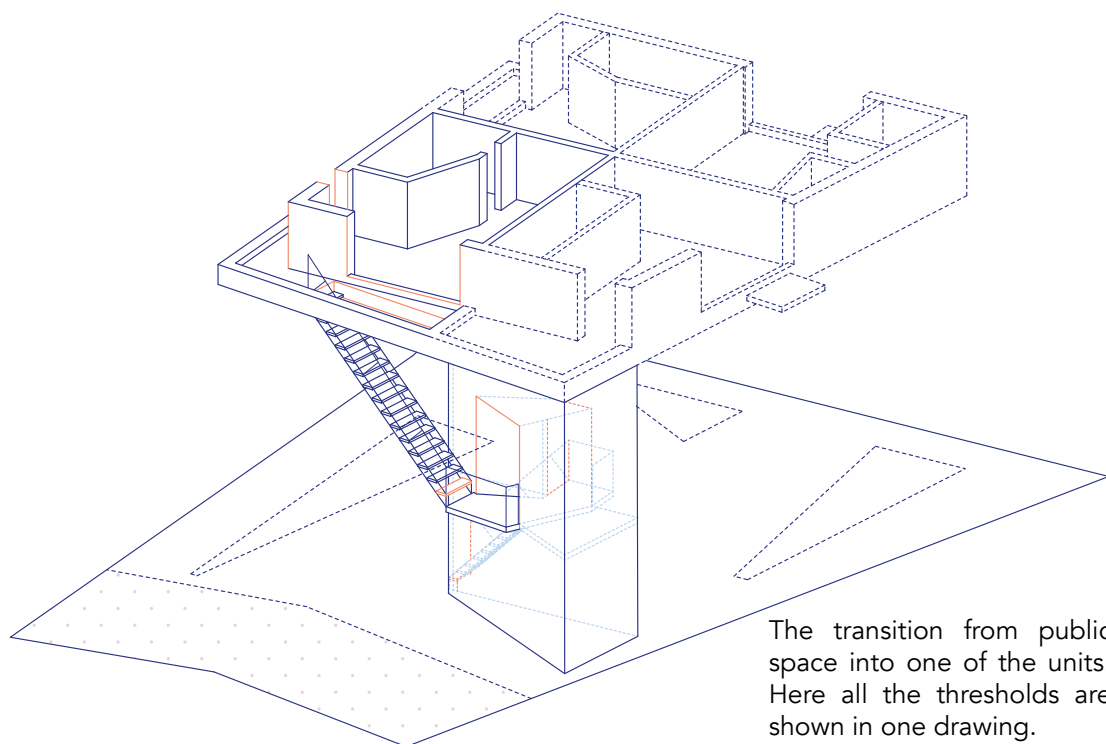
In this case; the porosity of the mainspace is obtained by the succession of multiple thresholds.



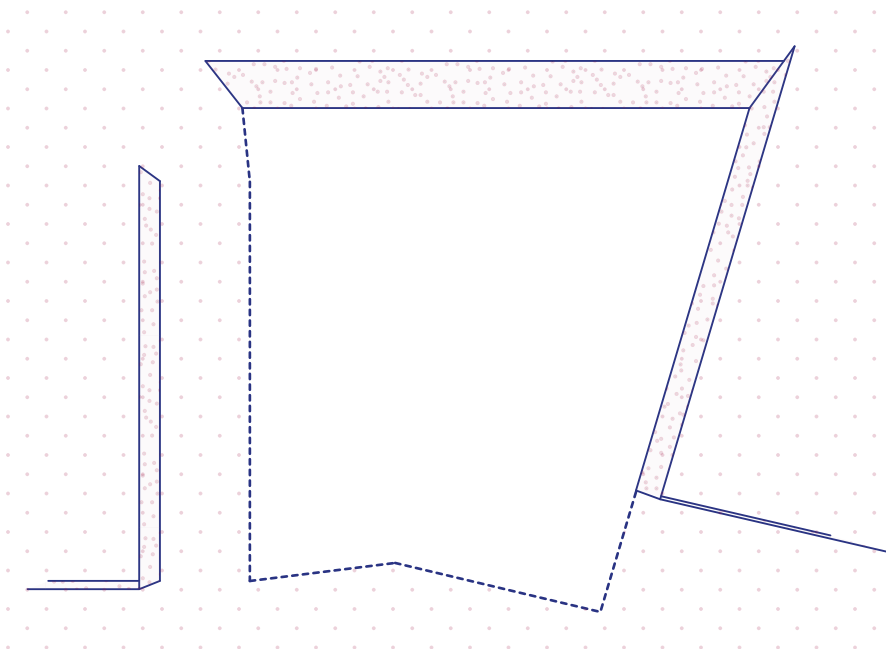
common

transition

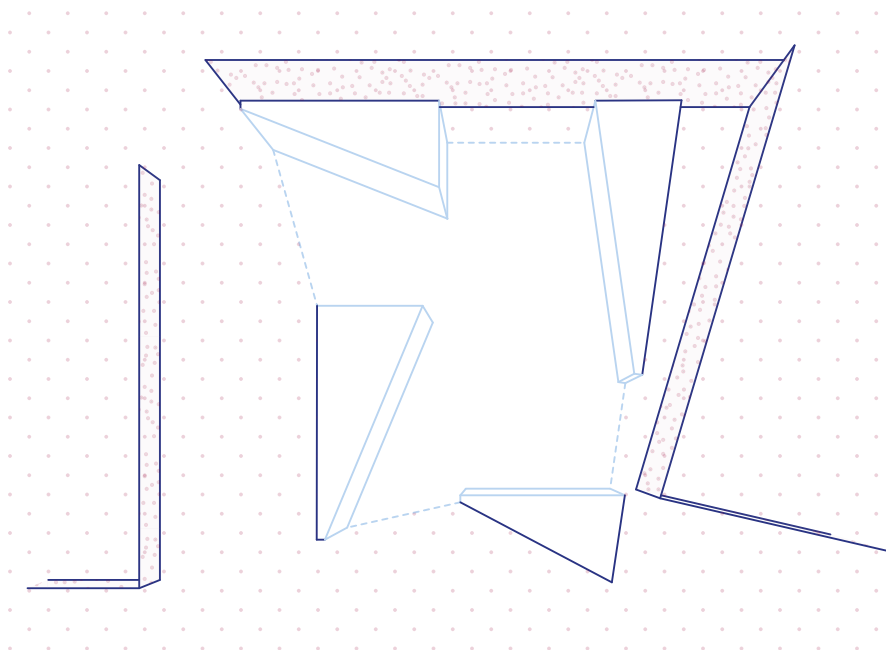
private



The transition from public space into one of the units. Here all the thresholds are shown in one drawing.

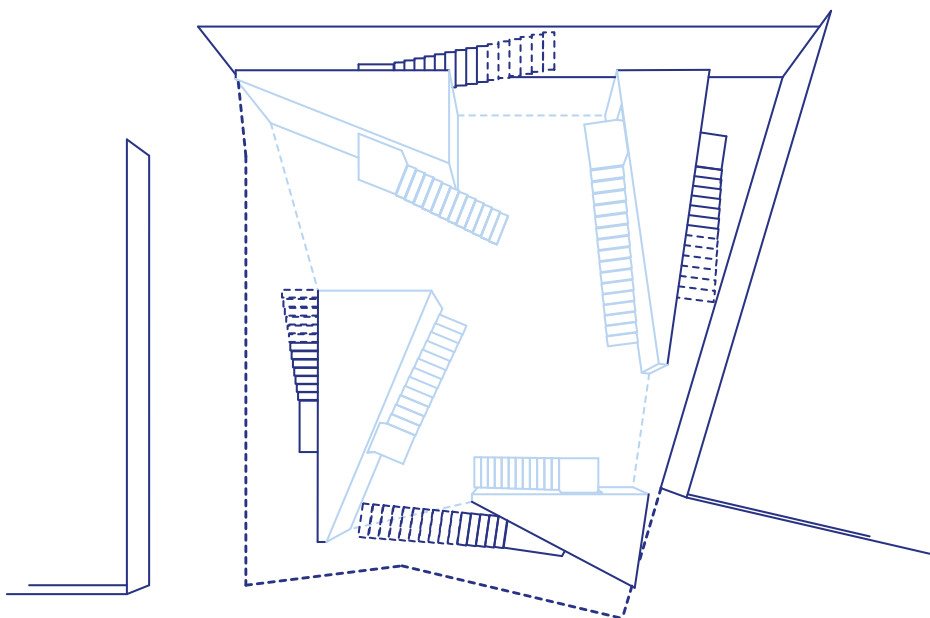
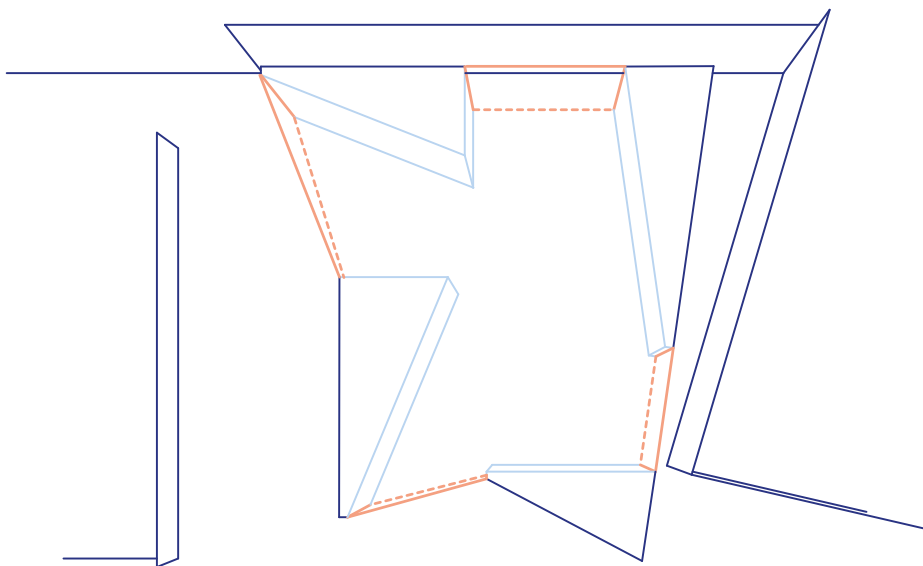


The plot.



First delineation.  
Mainspace is created  
through grouping, but this  
time without a shell structure.

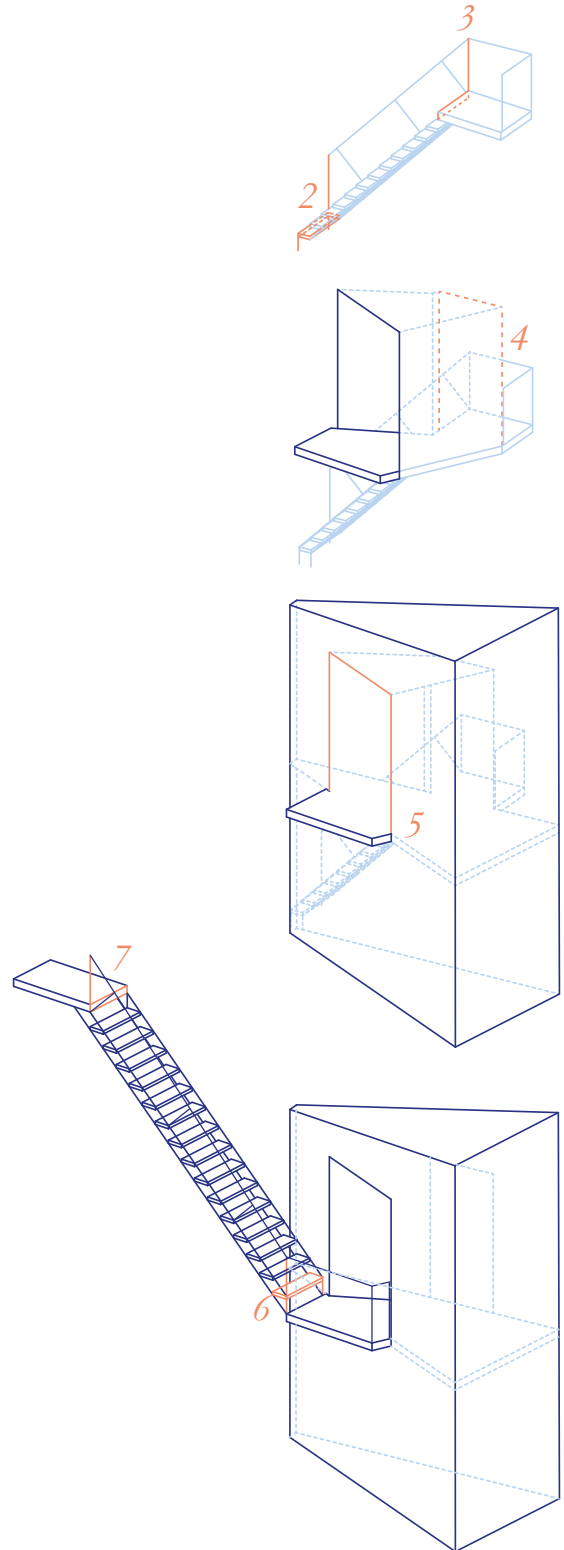
## *Threshold 1*



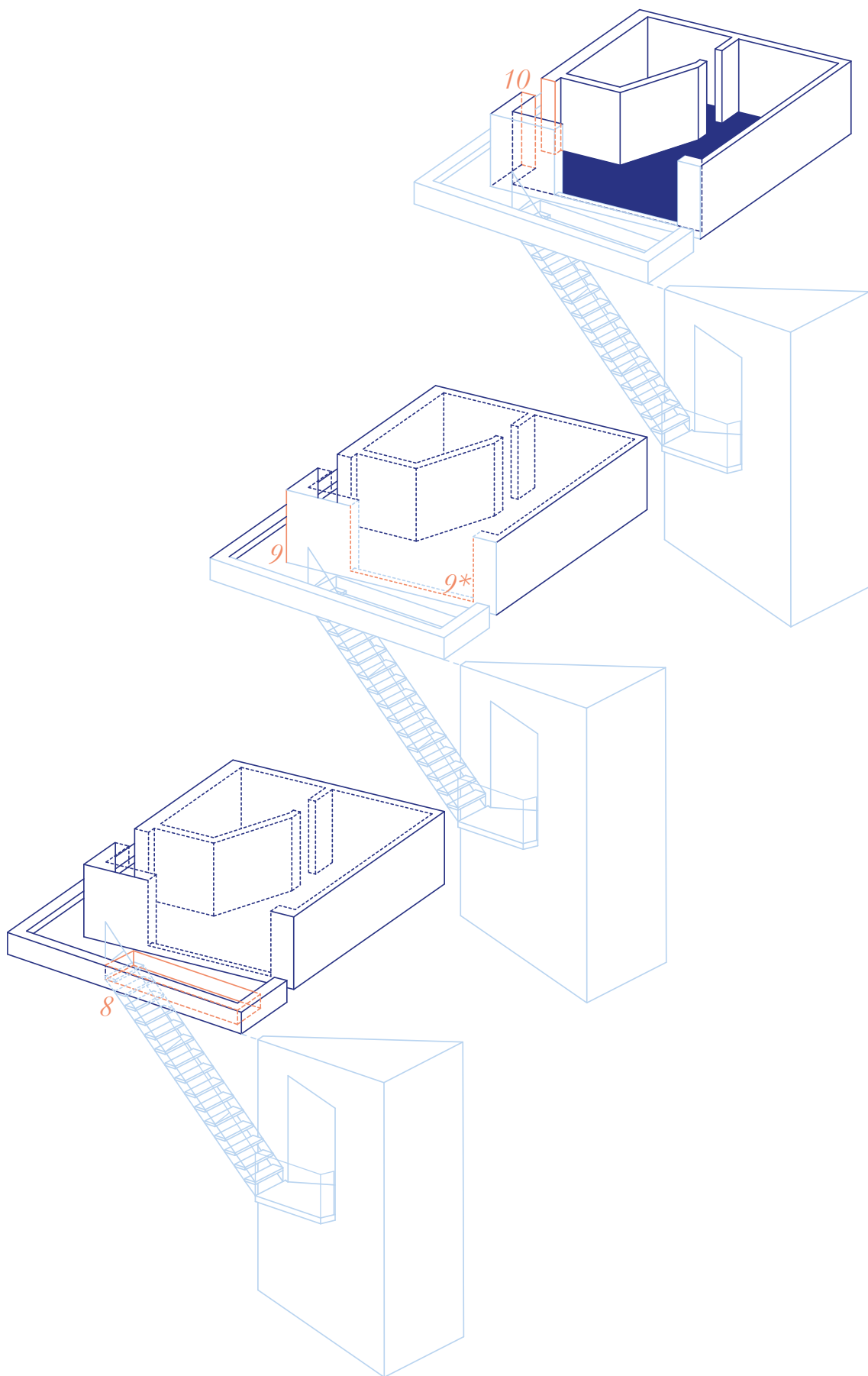
The invisible delineation characterizes elements as well as the space into public, shared and common.

# Fragments

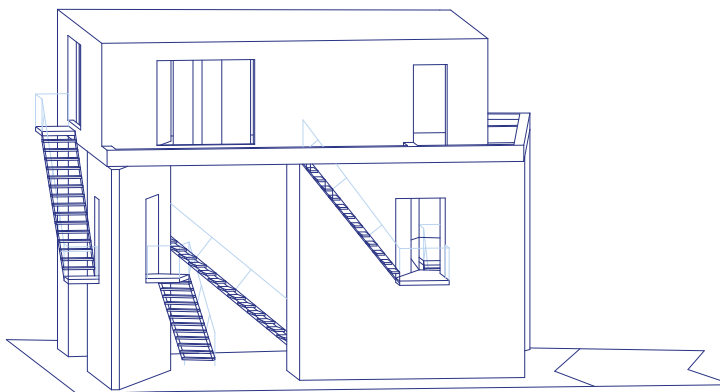
*Thresholds:*



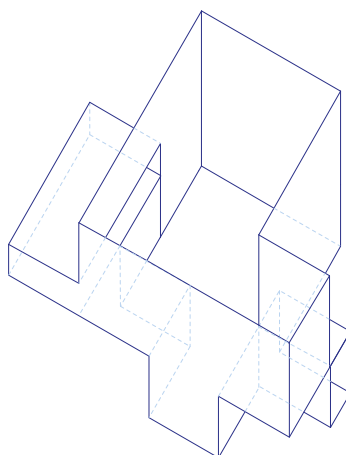
*Through the multiplicity of thresholds, multiple fragments are obtained. Each threshold is an introduction to an element characterized with a different level of intimacy.*



DEGREES  
of  
INTIMACY



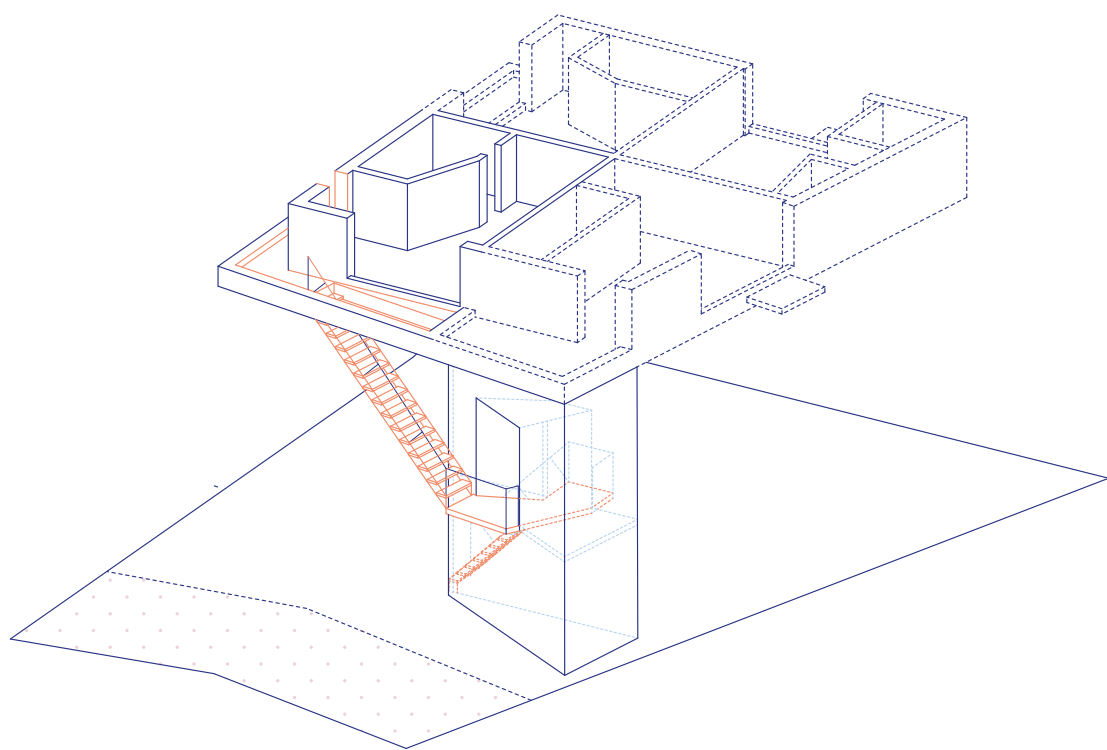
*Through a focus on the ditribution system  
of Yokohama Apartments and the mains-  
pace of LT Josai Share House.*



# Transition

*rather than entrance*

*The graduality of changing levels of intimacy within the living space is obtained with an element of transition across all these levels. This element assigns a ritualistic character to what would otherwise have been a simple act of entering.*

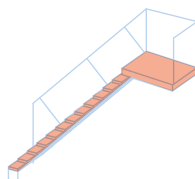


The transition element in Yokohama Apartments is the staircase, that can be called a vertical corridor, uniting

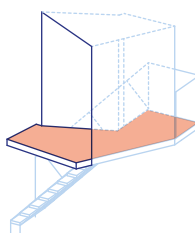
fragments of intimacy similar to a spine holding together the vertebrae.

*Transition element  
through the fragments:*

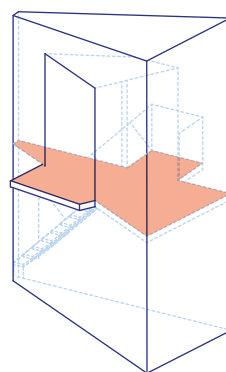
*1. up the common  
space stairs*



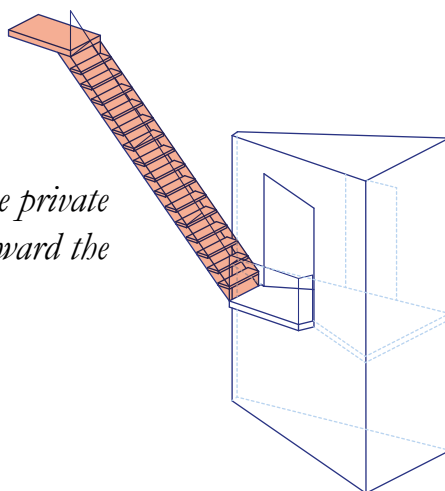
*2. through the  
triangle*

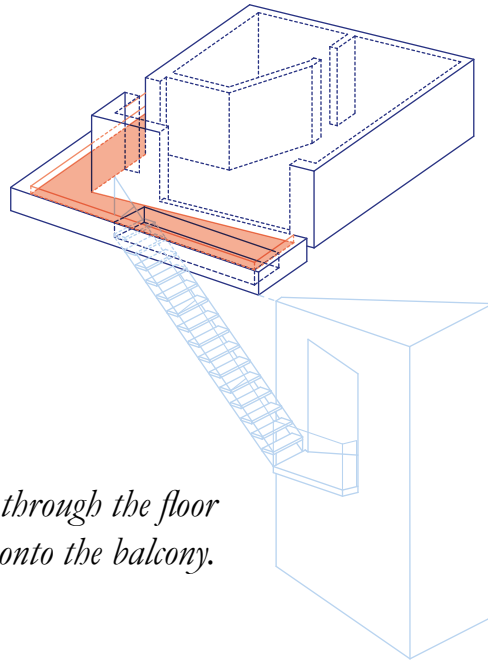


*3. out of the  
triangle*

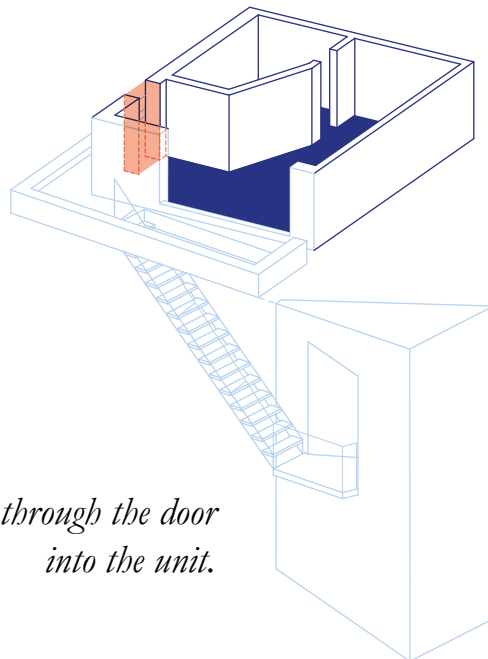


*4. up the private  
stairs toward the  
balcony*





*5. through the floor  
onto the balcony.*



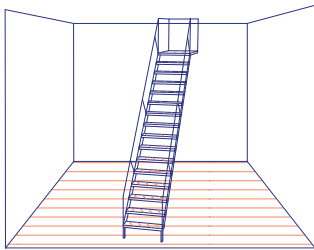
*6. through the door  
into the unit.*

# Interaction

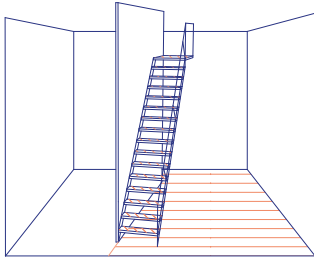
*during transition*

*The composition of the transition element, which in this case is the staircase, defines the character of the transition ritual. If the composition of the element allows to do so, this element can simultaneously be used as space of interaction, or a contributing element within the space of interaction..*

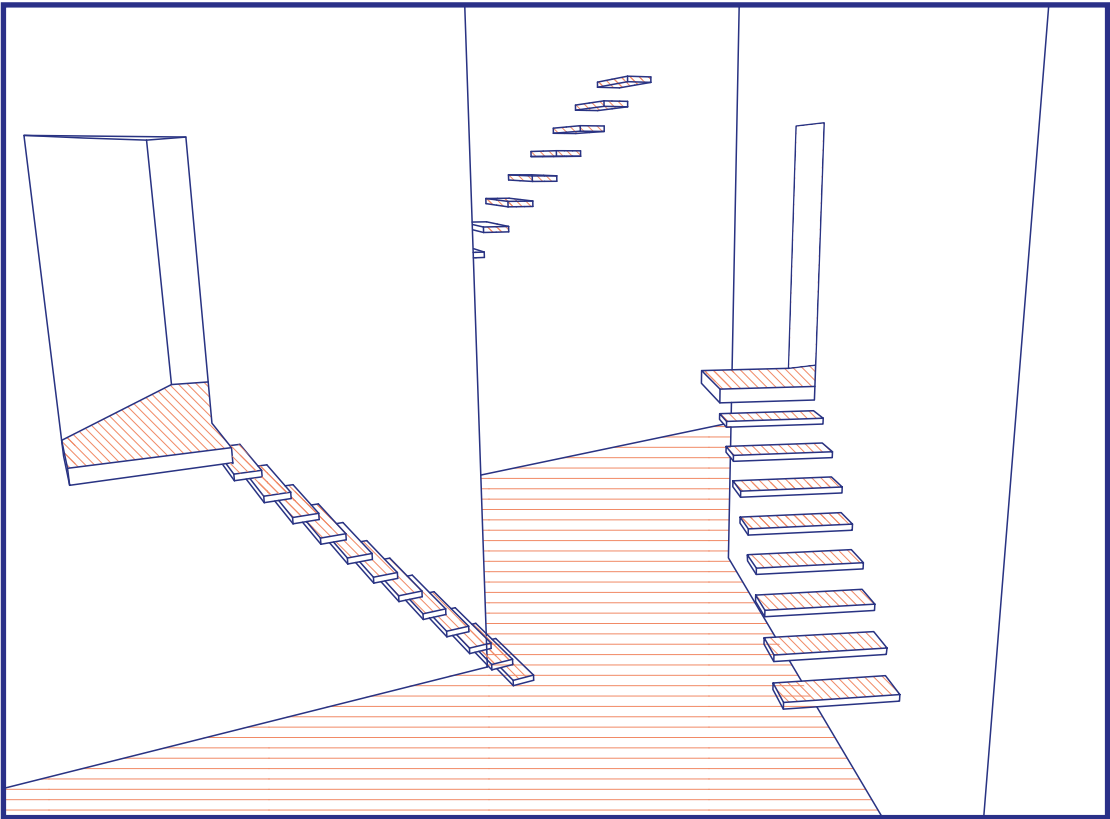
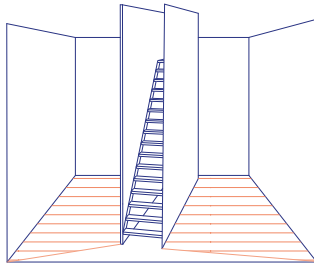
Option 1: the staircase is light and transparent, thus has minimum impact on the integrity of the mainspace.



Option 2: the staircase is light and transparent, but close don one side, delineating the mainspace. This is the case present in Yokohama Apartments.



Option 3: the staircase is characterized by the walls that surrounds it and is separated completely from the mainspace, interrupting the space into two different parts.



## *Share House LT Josai, Nagoya*

---

GENERAL INFO	Architects	Naruse Inokuma Architects
	Location	Nagoya, Japan
	Completion date	2013

---

AREAS	Storeys	2
	Plot Area(sqm)	-
	Gross Floor Area(sqm)	307
	Floor Area Ratio (FAR)	-

---

USE	Number of Residents	13
	Number of Units	13
	Other Functions Included	-

---

ADDITIONAL INFORMATION	Each individual room is a 12,4 m square sized.	
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SOURCE	"LT Josai / Naruse Inokuma Architects" 18 Apr 2014. ArchDaily. Accessed 31 Jan 2019. < <a href="https://www.archdaily.com/497357/lt-josai-naruse-inokuma-architects/">https://www.archdaily.com/497357/lt-josai-naruse-inokuma-architects/</a> > ISSN 0719-8884 Images courtesy of © Masao Nishikawa (Taken from archdaily.com)	
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ground floor plan

yellow = shared space



1st floor plan

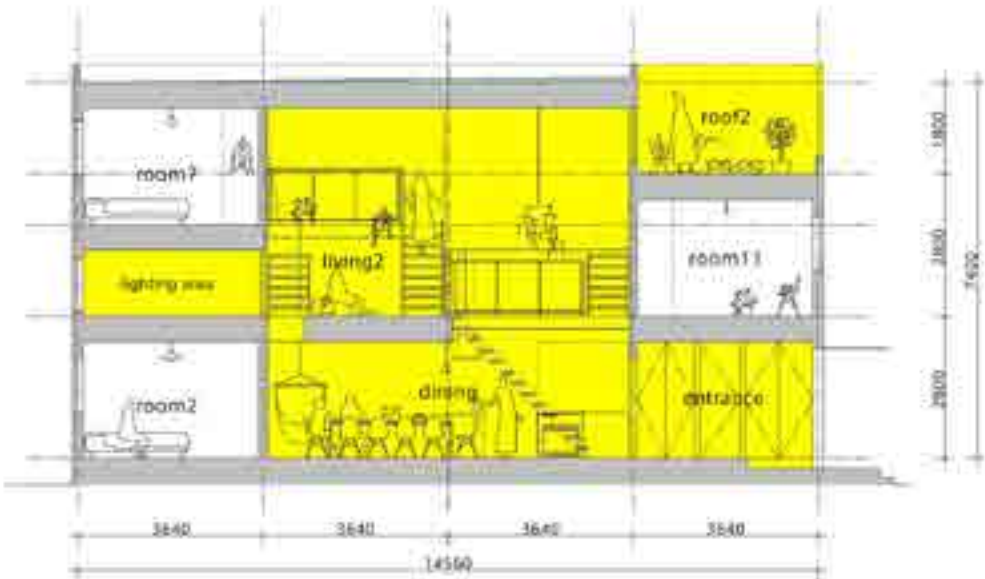


2nd floor plan



Similar to the previous case studies, this project also departs from unit-blocks that constitute the private spaces, grouped around the shared space which is characterized by its vertical as well as horizontal communicative nature that we previously called mainspace. All images and drawings taken from archdaily.com

a-a' section



Private space



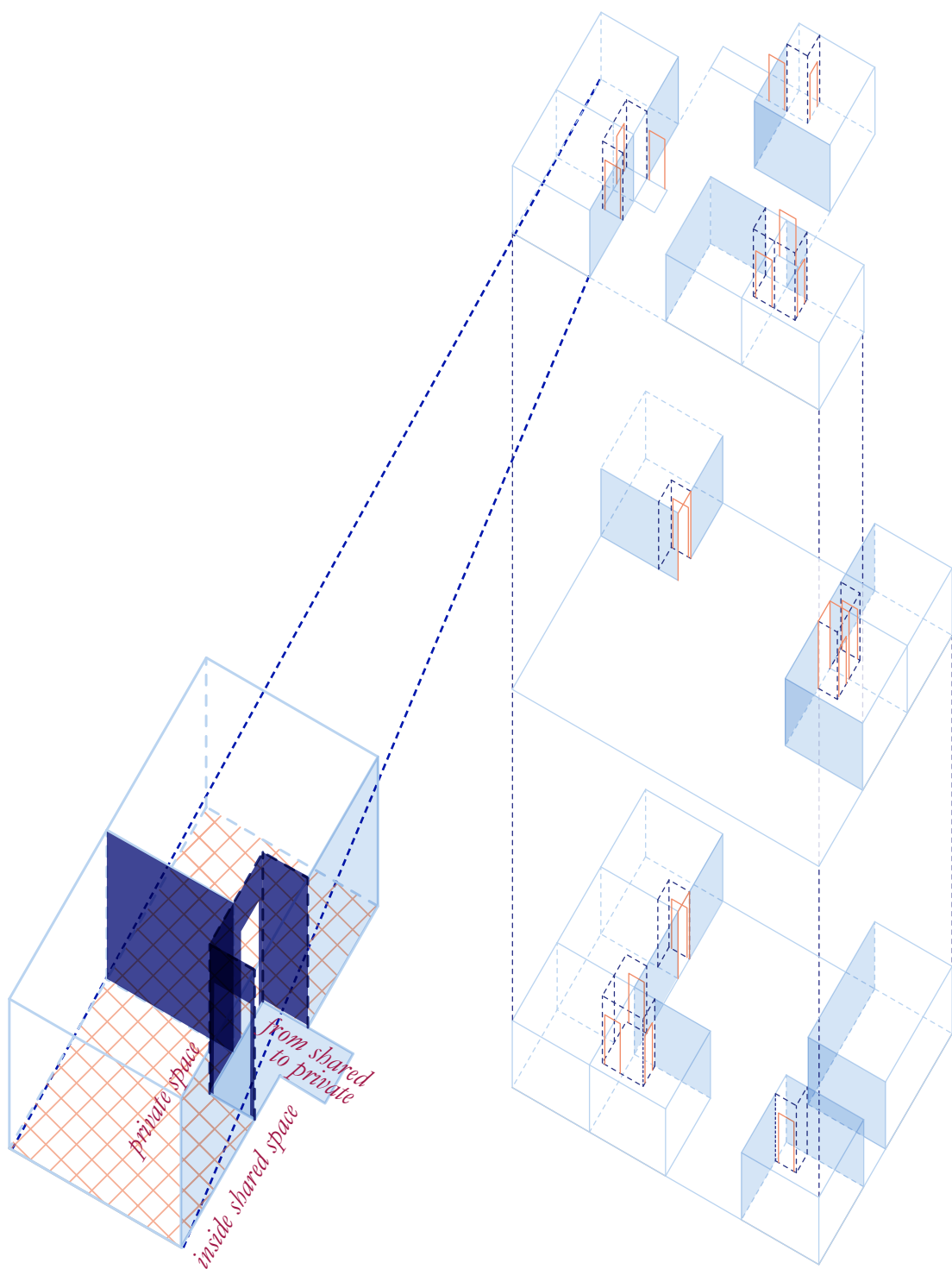
Integration



Common space

*interaction and/ or isolation;  
a choice.*

*Even though the placement of private units seems to leave the units highly exposed to the shared space, in LT Josai share house sense of privacy is obtained through a maze of thresholds that separated the units from the shared space.*



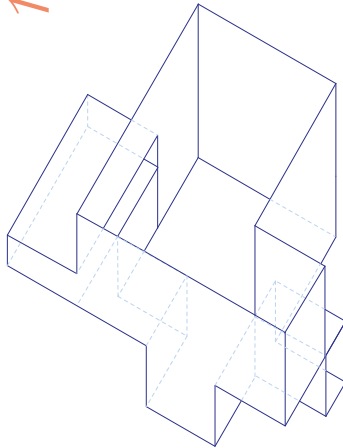
Closer look into a duo of units showing their relationship to their surroundings.

Exploded axonometric of the project showing all of the units and their trnances through maze of thresholds.

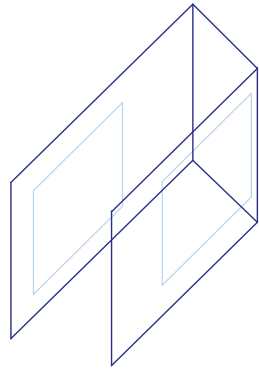
# Separation & connection

*In order to establish a consciousness of the community that surrounds the individual in the shared living environment, communication throughout the project is fundamental. This element allows to maintain this connection while also preserving the the organization of access between parts. Two alternative actions that establish the same goal will be studied here:*

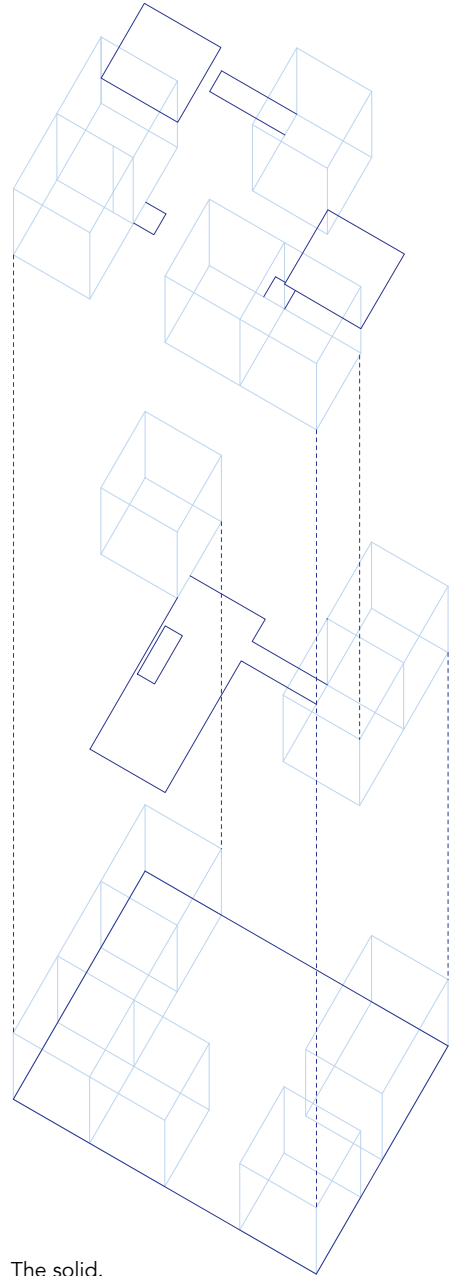
*1. the void  
that is the mianspace*



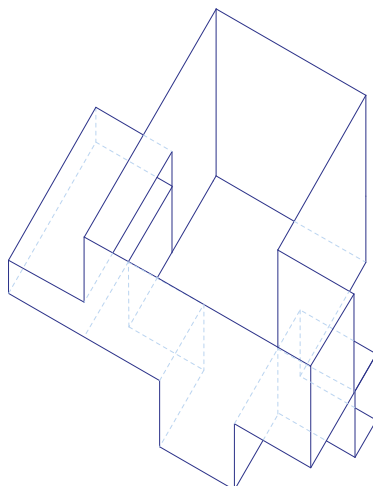
*2. openings  
within the mianspace*



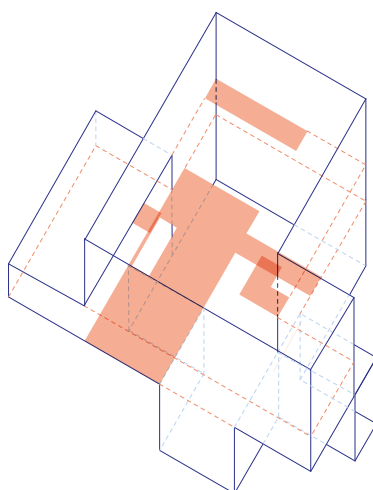
*1. the void*  
*that is the mianspace,*  
*LT Josai Shared Living*



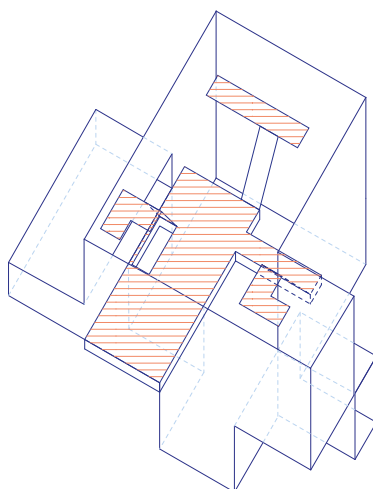
The solid.



The void.



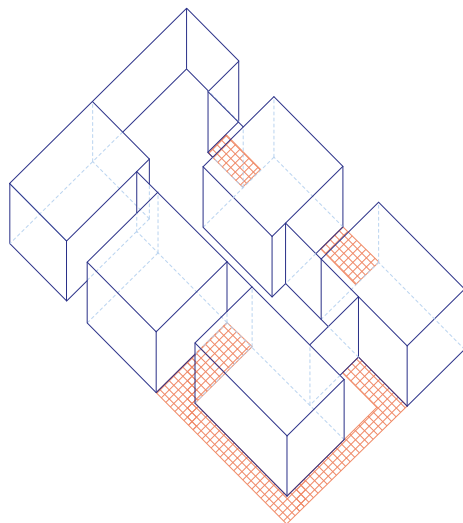
The void with disruptions.



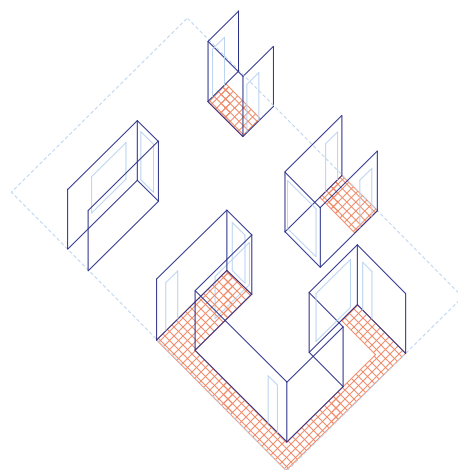
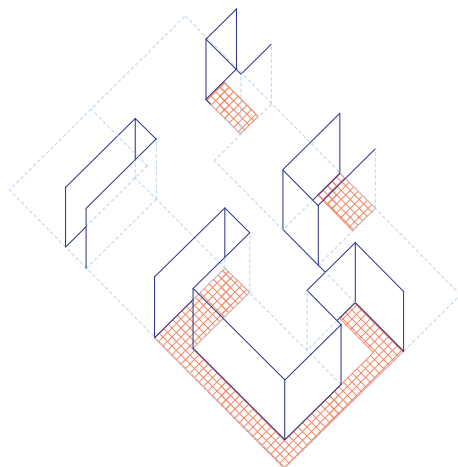
Partition through the void and connection through the disruptions.

## 2. openings within the mainspace, Songpa Micro Housing

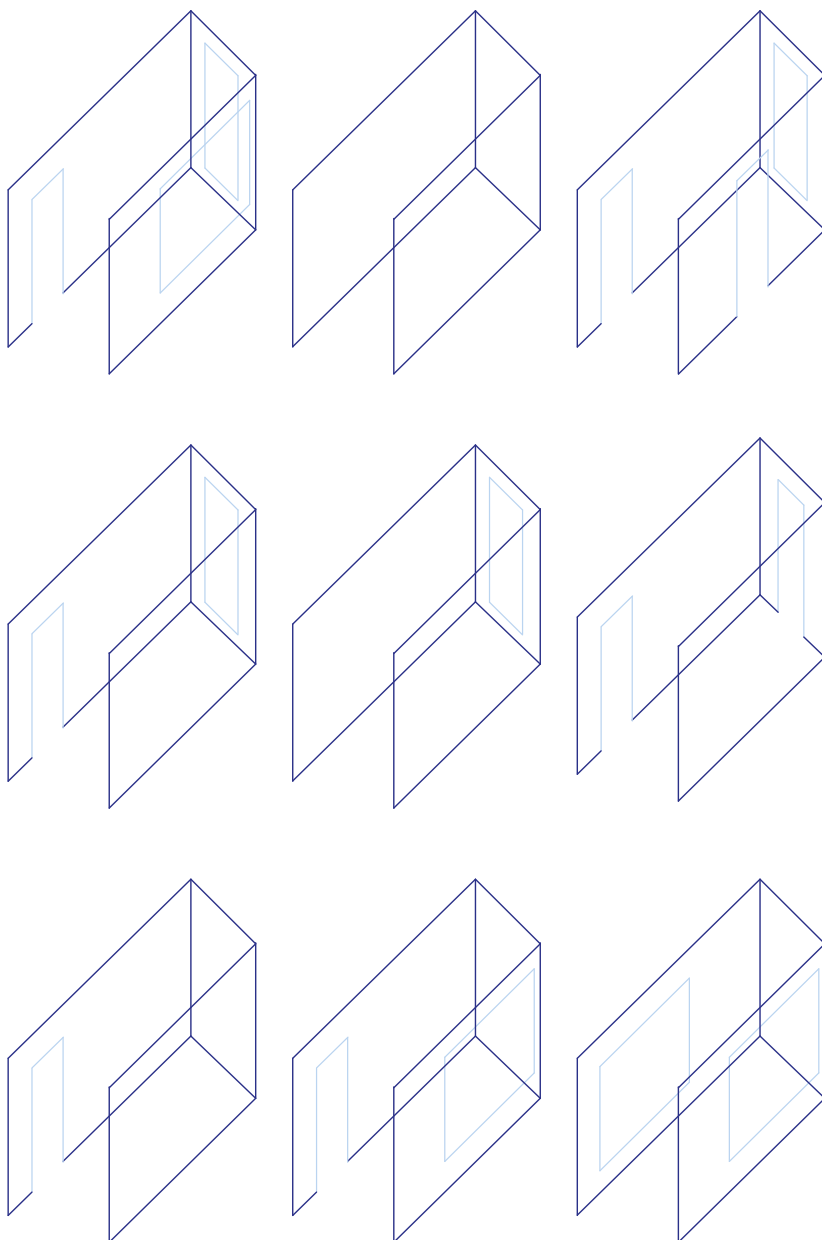
*Departing from the mainspace, this time the vertical elements that enclose the mainspace are studied. The different typologies of openings allow for visual access, but when disposed in an out-of-sync manner, their transparency varies, without changing the material. Additionally, some of the opening allow for physical access, in addition to visual access.*



In order to study the openings that connect the surrounding spaces of the mainspace; this time the surface of the mainspace is taken apart.



*9 Variations of openings within the mainspace:  
connecting and sitancing the units through the mainspace.*



# CONCLUSION

## *AMBIGUITY*

The ambition of this deconstructive analysis of case studies was to go further into detail and explore the compositional strategies that achieve certain spatial outcomes in living spaces, aiming to materialize what otherwise remains conceptual and theoretical in architectural thinking. Furthermore, this study aimed to construct a certain lexicon that can accompany and describe the intentions, as they turned into actions. However, by going into detail, this study has also revealed an important aspect that unites all of the concepts and actions mentioned here under one common concern, the main title. The common aspect of all of the concepts and actions mentioned in this analysis, is ambiguity. Its contribution to life in these shared spaces is to provide the interpretability of spaces and uses. Each of those actions, to achieve a variety of intentions, make use of a process that rethinks the conventional application and meaning of an architectural element, thus blurring its definition and lecture by the inhabitant.

As Hiromi Fujii explains through metamorphoses, the non-correspondence between the acquired meaning of an architectural element and the design meaning applied in the project creates a tension that *activates the perception of the viewer*. It is no longer an automated lecture, but the user needs to actively participate in defining such spaces. This situation not only gives way to appropriation of space, but also helps the space in question to maintain a certain ambiguity that allows various appropriations in time, instead of the assignment of a permanent function, or a permanent way of functioning to the space. Fujii proposes to create an alteration in the functioning of an architectural element in order to obtain this effect, with emphasis on the need to keep this alteration contiguous to the conventional function. What Fujii intends with 'function' of an architectural element can be further articulated by following Eisenman's theory of form in architecture. Eisenman, also in search of opening the way

to interpretation in order to achieve new meanings of architectural space, describes the object of this alterations as 'the relationships between forms' instead of the 'form of the object' itself. More specifically, he aims to discover ways in which the architectural objects can be distorted in order to achieve new relationships between them (and consequently; the space that results from these relationships).

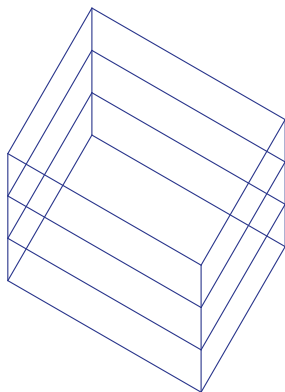
In these case studies analyzed in this chapter, certain elements have gained 'dual readings' which helps blur their conventional definition and open the way to new ones. Inhabitants interpret such spaces based on their needs and emotions, actively participating in the architectural design, throughout the life of the building. This is an important aspect in shared spaces, since such participation has the potential to form a common ground between inhabitants, and provoke interaction. These spaces also have more possibilities to provoke the formation of small groups of company, by giving the inhabitants the

freedom to choose whether to participate or to retreat. Within the description of each concept, other two concepts are inevitably mentioned, as a result of their interwoven relationship. They are closely related and usually used together, as one reinforces the other's effect, which solidifies the theory that they are connected under one common goal.

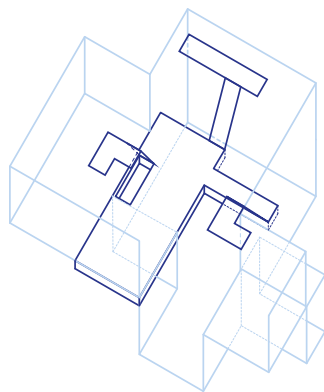
*"... the creative freedom lay in being able to subvert and reconceive an unquestioned category that was considered axiomatic."*

*Niklas Maak, in The Living Complex*

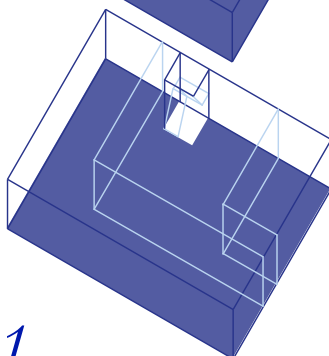
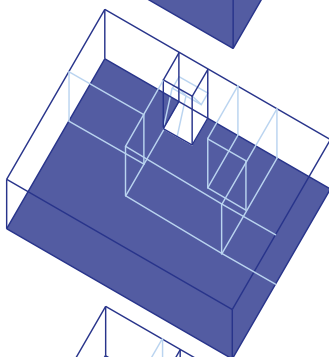
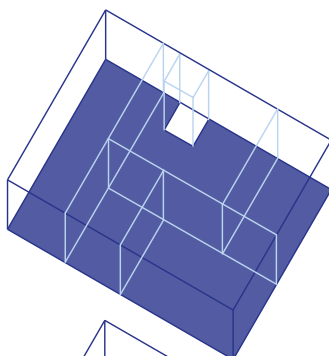
## 2 scenarios



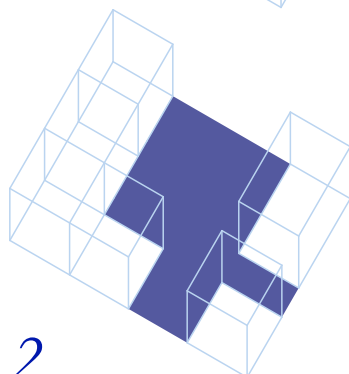
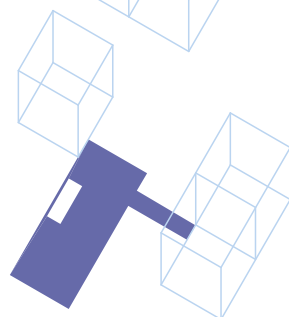
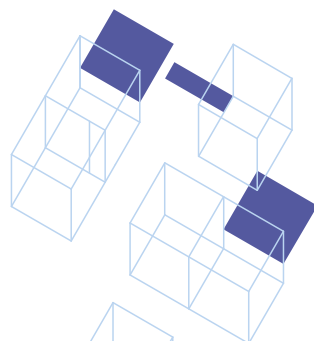
Scenario 1: hypothetical scheme for a variation of LT Josai Share House where floors are conceived in the conventional manner.



Scenario 2: scheme representing the horizontal element on each level, based on the existing situation.



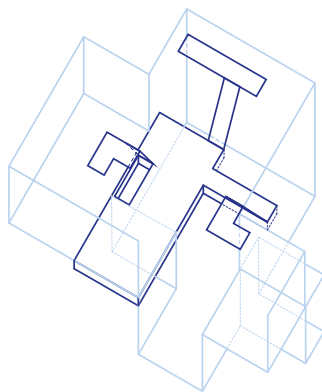
1



2

*LT Josai Share House project revisits the horizontal slab as an element of division and reinterprets its potential to connect and establish a verticality.*

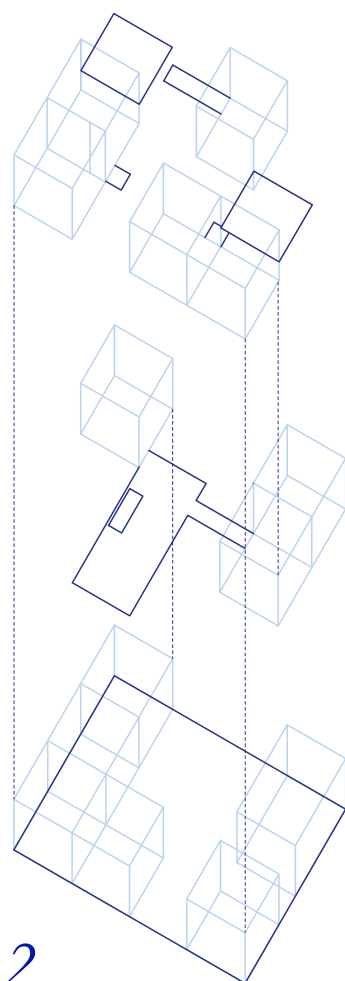
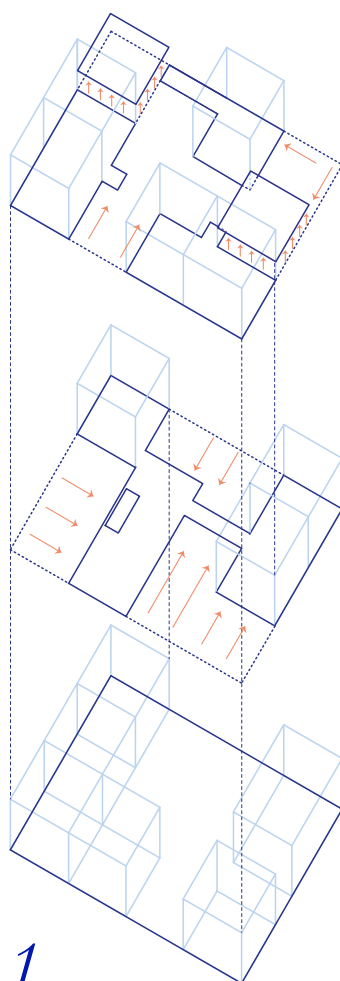
## *Ambiguity in the creation of scenario 2.*



*The ‘dual reading’ here lies in the ambiguity of the hypothetical creation of horizontal elements. Being detached from the periphery of the building, the way that the current form came to life, can be interpreted in two different ways.*

*First possibility departs from the Scenario 1 and applies modifications to the floors such as extracting some pieces and leveling others.*

*The second scenario implies a putting together of multiple elements, inside a frame structure.*





# BIBLIOGRAPHY

## *Chapter 4*

Eisenman, Peter. "From Object to Relationship II: Casa Giuliani Frigerio: Giuseppe Terragni Casa Del Fascio." *Perspecta*, vol. 13/14 (1971): 37-65. doi:10.2307/1566970.

Maak, Niklas. *Living Complex: From Zombie City to the New Communal*. Translated by Bram Opstelten. Munich: Hirmer, 2015.

Sennett, Richard. "The Public Realm." In *The SAGE Handbook of the 21st Century City*, 585-601. 55 City Road, London: SAGE Publications Ltd, 2017.

Venturi, Robert. *Complexity and Contradiction in Architecture*. The Museum of Modern Art: 1977.

# CONCLUSION

Economic crises, globalization, and rapid technological advancements have created a scene where the nuclear family living and homeownership are luxuries of the past, work is no longer confined within the traditional workplace or working hours, and people are no longer geographically stable. Although these tendencies don't yet make up a conclusive lifestyle, they indisputably have a strong influence on the lifestyle changes in motion. They influence strongly the generations that are born into such changes and that adapt their values accordingly. The generation that has intensely experienced the period of transition - where the traditional and the habitual no longer respond to social tendencies, but yet the boundaries of questionability are not yet clear, - is the Generation Y. Their reaction to the current situation supplies valuable information on the direction toward which these changes might lead us. For this reason, in the second chapter the Millennial generation is studied; their social values and needs, especially in relation to living spaces. As a result, a tendency towards sharing is revealed, which is accompanied by a strong concern of liberty to privacy and individuality within shared solutions, and that the existing housing supply increasingly loses its relevance to the demand. Case studies have shown a wide range of examples that reinterpret existing dwelling models such as apartment buildings turned into student housing or mixed typologies of hotel-dormitory models. The incompatibility, thus, results from a lack of experimental projects that overcome such preset rules and conventional organizations of living spaces. This gap grows deeper due to decreasing funds for housing associations and the profit-driven private market that rapidly gains control over the decisional process in the creation of living environments. However, as demonstrated in case studies as well, there are several examples where a group of people uses their resources to commission together their ideal living arrangements or where concerned professionals in architecture and urbanism take action and propose solutions. The third chapter shows that such controversial proposals, opposed to the pre-set toolbox used by architects, have existed all around the world,

and especially since the 1970s, they were concerned about the home, where social strategies are embedded. This brief chapter reveals an important common concern that drove these architects in their studies and during their creative processes which led them to design spaces that are effective in introducing interactions and in engaging the user in the architecture as well as evoking curiosity, appropriation and a sense of place. Through relationships of forms and objects; they used ambiguity, complexity, duality imposed within a framework of historical consciousness. They successfully introduced a legible contradiction to the known, to the habitual and to the conventional all the while maintaining subtle signs that refer to the departure point.

Finally, with the intention to analyze three case studies that successfully apply the previously mentioned innovative creative thoughts in their execution, a toolbox was created. This toolbox, composed of keywords, helped free the observations from conventional categories that dominate the design process of living spaces such as over-determined functions as bedroom or kitchen, or dualisms that do not allow for graduality, such as public and private. Guided by the confining keywords, the deconstructive analysis of the case studies, through selective schemes, has brought forward two conclusions. First, as was the goal of this study; the theoretical concepts were translated into actions and spatial outcomes, with the intention to materialize abstract concepts. Additionally, this analysis - going deeper into the morphology of the case studies - has revealed a much wider concept that brings all of the actions and intentions together; the search for ambiguity.

As was argued by several visionary architects in the last century, ambiguity has, in these cases as well, helped revisit established rules, and helped engage the user in the appropriation of their living space, on a daily basis, which is an important advantage in a system where space is a luxury that not many can afford.

# DISCUSSIONS

*Covering a broad range of arguments in order to formulate an approach to a recently emerged topic in architecture, this study aimed solely to initiate an exploration of possible principles that will guide architecture towards the future of the living spaces. As a result, it opens the way for further considerations on the topic. Each day, more examples that aim to respond to the demand defined here emerge, thus, a further detailed analysis of case studies, amplified to a bigger number of projects can be conducted. This way, a refined, expanded and also a more specific toolbox of terminologies can be obtained. Furthermore, an observation that links the commissioning process and the actors involved in it, to spatial characteristics that are obtained, can be useful to establish a clear understanding of which processes and decisions can result in desirable living environments.*

*In addition to the objective criteria such as construction date and the number of units, based on which case studies here were chosen, the decision also includes qualitative criteria which can be criticized as partly subjective. The qualitative criteria is based on my professional observation of the presence of innovative concepts that are mentioned since the goal was to analyze the strategies that help obtain those concepts.*

*The relevance of this study lies in its concern about the demands of future generations. These make up the necessities that will shape the real estate market as well as the morphology of our cities in the future.*