

T.C.
BAHCESEHIR UNIVERSITY
GRADUATE SCHOOL
FACULTY OF ARCHITECTURE AND DESIGN

TINY HOUSE MOVEMENT AND COMMUNITY LIFE:
EXAMPLES IN TÜRKİYE

MASTER'S THESIS
MERVE YILDIRIM

ISTANBUL 2024

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BAHCESEHIR UNIVERSITY
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ABSTRACT

TINY HOUSE MOVEMENT AND COMMUNITY LIFE: EXAMPLES IN TÜRKİYE

Yıldırım, Merve

Master's Program in Architecture

Supervisor: Asst. Prof Dr. Belinda Torus

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Factors such as global warming, economic crises, and pandemic disease have begun to affect people's daily lives directly. People have also started to become conscious about the houses they live in. People's expectations of housing, as in every other subject, have begun to change.

This thesis begins by reviewing various types of dwellings and settlements and also highlights contemporary small-scale housing concepts that have developed in the 21st century, including micro-apartments and eco-friendly tiny houses.

The thesis thoroughly examines the tiny house movement, providing a comprehensive analysis of its historical origins, influential individuals, and the development and influence of this movement on community dynamics. An analysis is conducted on case studies of tiny house communities around the world, offering valuable insights into the distinctive social dynamics and issues faced by these communities.

A substantial amount of the study is on tiny house communities in Türkiye, analyzing the reasons for preferring this way of life, the legal and regulatory obstacles, and the daily life experiences of the residents. An analysis of specific tiny house communities in Türkiye through conducted interviews has provided significant insights into their demographic composition, design methodologies, social interactions, and the perspectives of its residents.

In conclusion, the thesis offers significant recommendations for the future development and expectations of the tiny house movement. These recommendations are based on the comprehensive analysis of the historical evolution of dwelling and community life, with a focus on the tiny house movement, and aim to guide its future development.

Key Words: Tiny House, Communal Life, Downsizing, Dwelling



ÖZ

TINY HOUSE AKIMI VE TOPLUMSAL YAŞAM: TÜRKİYE’DEKİ ÖRNEKLER

Yıldırım, Merve

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Küresel ısınma, ekonomik krizler ve pandemi gibi faktörler insanların günlük yaşamlarını doğrudan etkilemektedir. Bu etkiler doğrultusunda insanlar yaşadıkları evlerin farkına varmaya başladılar. İnsanların konut beklentileri, diğer her konuda olduğu gibi, değişmeye başladı.

Türkçe’de 'tiny house' terimi doğrudan 'küçük ev' anlamına gelse de, literatürde ve günlük konuşmada çoğunlukla 'tiny house' olarak kullanılmaktadır. Tiny house terimi henüz tam anlamını yansıtmak şekilde Türkçe’ye çevrilmemiştir.

Bu tez, erken yerleşim yerlerini gözden geçirerek, göçebe yaşamdan yerleşik kentsel topluluklara geçişini vurgulayarak ve önemli vakaları tartışarak başlamaktadır.

Ayrıca tezde yerel mimari ve Sanayi Devrimi'nin konutların evrimini etkileyen önemli etkisini incelemektedir. Sonrasında, tez, mikro daireler, minimumda konut ve çevre dostu küçük evler de dahil olmak üzere 21. yüzyılda geliştirilen çağdaş küçük ölçekli konut kavramlarını incelemektedir.

Tez, tiny house hareketini derinlemesine inceliyor, tarihi kökenleri, etkili bireyler ve bu hareketin toplumsal dinamik üzerindeki gelişimi ve etkisi hakkında kapsamlı bir analiz sunmaktadır. Ayrıca dünyadaki tiny house topluluklarının durum çalışmalarıyla ilgili bir analiz yapılmıştır ve karşılaşılan belirgin sosyal dinamiklere ve sorunlara analiz edilmiştir.

Çalışmanın önemli bir kısmı Türkiye'deki tiny house toplulukları üzerine yapılmıştır ve bu yaşam tarzını tercih etme nedenlerini, yasal ve düzenleyici etkenleri ve ev sakinlerin günlük yaşam deneyimlerini analiz edilmiştir. Türkiye'deki belirli tiny

house topluluklarına yapılan görüşmelerle yapılan bir analiz, demografik bileşimi, tasarım metodolojileri, sosyal etkileşimleri ve sakinlerinin bakış açıları hakkında önemli bilgiler vermiştir.

Tez, tiny house hareketinin gelecekteki gelişimi ve kullanıcı beklentileri için önemli öneriler sunmaktadır. Bu çıkarımlar ve öneriler, tiny house hareketine odaklanarak, konut ve toplumsal yaşamın tarihi evriminin kapsamlı bir analizine dayalı ve gelecekteki gelişimini yönlendirme amaçlıdır.

Anahtar Kelimeler: Tiny House(Küçük Ev), Topluluk Hayatı, Küçülme, Konut





To my family

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LIST OF ABBREVIATIONS

CESCR	Convention on Economic, Social and Cultural Rights
TBL	Triple Bottle Line
THC	Tiny House Community
THOW	Tiny House on Wheels



Chapter 1

Introduction

1.1 Statement of the Problem

After the industrial revolution, the world began to develop with high acceleration. People's expectations of housing, as in every other subject, have begun to change. Throughout history, environmental factors, social considerations, geographical location, construction method, materials used and interior design have been the main factors determining the basic features of the houses. However, with the increasing city populations, poverty, new architectural movements that emerged and spread to the world and the meaning that people ascribe to dwelling began to change. Affordable housing has become a compulsory option for some people. Even as the value of houses has increased, the idea of integrating technology into dwellings has become more and more common. People's search for new spatial meanings, affordability and sustainability aspects in their houses will also be increased.

The emergence of tiny house communities presents a new housing phenomenon, yet the motivations driving individuals to choose such living arrangements remain underexplored. Furthermore, even though joining these communities is frequently motivated by a desire to live sustainably, further research is needed to determine the degree to which members actively participate in eco-friendly activities and how interactions between individuals affect sustainable behaviors. In addition, policies and interventions aiming at encouraging inclusive and ecologically conscious housing options need to take into account the relationship between individual benefits, sustainable living habits, and community context. By investigating the housing preferences of individuals in tiny house communities and concentrating on their motives, sustainable living techniques, and the larger community context, this study seeks to address these gaps.

1.2 Aim of the Study

This study aims to conduct a comprehensive examination of individuals' housing preferences within tiny house communities, with a particular focus on understanding

the reasons behind their decision to live in a tiny house, how they participate in sustainable living practices, and how their experiences are shaped by the larger community context. By examining these aspects, the research aims to clarify the complex factors that contribute to the popularity of tiny house existence, examine the degree to which locals are involved in eco-friendly practices, and investigate how community dynamics impact housing choices. In conclusion, the study aims to provide insightful knowledge that can guide interventions and policies that support affordable, ecologically friendly, and sustainable housing options.

1.3 Scope of the Study

Within the scope of this study, tiny house communities will be studied. The evaluation of dwelling will be examined from the very beginning of its history in order to better comprehend the process leading to the development of tiny houses. Houses were constructed using similar methods into the twentieth century. With their limited materials and construction methods, the houses generally exhibited traces of their geography, climate and raw materials. This approach, which forms the basis of vernacular architecture, will be analyzed. That examination will provide a better understanding of the environmental and social factors in the design strategies of tiny houses in further chapters.

New architectural movements that developed with the Industrial Revolution, new raw materials, new construction methods will be explained in housing after the 20th century. With the development of technology in rural areas as well as in cities, buildings that reflect different architectural movements can be seen all over the world. As one of the results of these movements, social housing will be studied in the context of the need for downsizing and alternative housing.

The tiny house movement will be discussed in the third chapter. Even though the main concept of the thesis is the 21st century of tiny houses, their historical background and ideology will be mentioned. It will be explained in which categories the tiny houses are divided into. Besides the benefits, the difficulties and disadvantages of living in a tiny house will also be discussed. In the fourth chapter of the thesis, a questionnaire study will be administered to the owners and inhabitants of these communities in order to have firsthand knowledge of the housing choices, driving

forces, sustainable living methods, and community dynamics of tiny house communities. This chapter will provide valuable empirical data to supplement the theoretical framework established in earlier chapters.

1.4 Limitation of the Study

People have preferred to live in tiny houses since the beginning of humanity. Huts, tents, igloos, wigwams, or grass huts can be seen as small square meters of dwellings. Especially in the 20th century, the use of small houses has increased considerably due to post-war economic concerns. Although the desire to live in a tiny house has been seen in previous centuries, in this thesis, small houses of the 21st century will be studied. The main reason for this limitation is that the design strategies of those tiny houses will be examined from the perspective of 21st century technology, socioeconomic status, environmental factors and what they promise for the future.

1.5 Methodology of the Study

The methodology involves conducting in-depth interviews with participants to gather rich and detailed insights into their motivations, challenges, and perceptions related to tiny house living. Participants for the interview study will be selected using purposive sampling techniques. The chosen participants will be subjected to semi-structured interviews. A variety of topics, such as reasons for selecting a tiny house lifestyle, experiences in the community, sustainable living methods, difficulties encountered, and opinions of community dynamics, will be covered in the interview process. As long as participants agree, interviews will be audio recorded and verbatim transcribed for analysis. Findings from the interview study will be analyzed in light of applicable theoretical frameworks and existing literature on tiny house communities.

Discussion and Conclusion will give the interpretations and address their implications for theory, practice, and future study. By adopting this qualitative research methodology, the study intends to provide significant insights into the lived experiences and perceptions of residents and owners in tiny house communities, contributing to a fuller understanding of this housing phenomenon.

1.6 Research Questions

- To what extent does the concept of tiny house living align with the principles of nomadism, and how does this perception influence the design and usage of these dwellings?
- What are the modern reflections of nomadic living with tiny houses?
- How do global events, such as the rise of remote work and the growing emphasis on sustainability, shape individual preferences and choices regarding tiny house living?
- In response to soaring land prices, how can tiny house communities be effectively integrated into urban and rural planning strategies to provide affordable and sustainable housing options?
- What are the specific regulatory gaps and challenges faced by tiny house communities, and how can comprehensive and responsive frameworks be developed to address these concerns?
- How can tiny house communities foster a sense of cohesion and resilience among residents, mitigating anxieties related to potential community dissolution or relocation?
- What are the underlying socio-economic and cultural factors that contribute to the perception of tiny houses as secondary dwellings in Türkiye, and how can these perceptions be addressed to promote their adoption as primary residences?

Chapter 2

Historical Evolution of Dwelling and Community Life

The concept of dwelling is an essential principle in the study of human civilization; it is more than just a place to sleep; it is a deep insight into the development of culture, society, and technology. From the earliest indications of humans living in prehistoric caves to the exquisitely designed structures of contemporary urban environments, the history of dwelling captures the complicated relationship between environmental adaptability and human creativity. Examining this complex historical fabric reveals the dynamic interplay between people and the structures they live in, as well as the development of architectural styles, community living layouts, and the desire for safety and comfort. Humans require shelter to be shielded from outside influences and to avoid being negatively impacted by weather conditions. Sheltering has always been at the forefront of the most fundamental human needs, regardless of technology or historical era. Caves, tents, and tree hollows can be considered the earliest examples of houses, serving as protective safe spaces. Living areas with features typical of a house were developed over time as people's sense of belonging and their understanding of building materials and techniques increased. Climate, culture, or historical period aside, this area or the multifunctional building is seen as a place to live rather than a place to stay.

2.1 Community Dynamics: Shaping Housing Evolution

Community life is comprised of people who live together in common environments or locations, usually sharing social interactions, resources, and responsibilities. This method of living includes all kinds of communal living situations, from old communal societies to co-housing developments and intentional communities.

When people live in a community, they unite to form a close-knit group with similar values, objectives, or interests. In addition to living spaces like apartments, houses, or other dwellings, they often share facilities and common areas like kitchens, living rooms, gardens, and recreational areas. Depending on the exact setup and

agreements within the community, residents of community housing may also work together on responsibilities like cooking, cleaning, and gardening.

Living in a community provides chances for social support, collaboration, and shared experiences, as well as a feeling of belonging and connection among its residents. It can provide a stronger sense of security, more resource sharing, emotional support, and improved social engagement. Community living arrangements may also encourage sustainability since they allow people to share resources more effectively and minimise their environmental impact by implementing activities like sharing a vehicle, communal gardening, and shared energy systems. Overall, communal living offers a means of cohabitation in a mutually beneficial and encouraging atmosphere that promotes a sense of shared responsibility and community among its members.

The design and layout of dwellings have been impacted by changes in family structures, including reduced household sizes, dual-income households, and an increase in single-person households. Smaller, more functional spaces that meet the demands of single people or small families are in higher demand. In urban areas, this has resulted in an increase of micro-housing units, townhouses, and apartments.

Dwelling preferences and neighborhood design are influenced by the desire for social connectivity and community involvement. Housing concepts that emphasize community living and shared resources include cohousing communities, intentional communities, and co-living spaces. These settings encourage social interaction and a sense of belonging among the inhabitants, reflecting a way of life that places a high importance on support systems and community involvement.

The desire for community engagement and social connectivity influences housing preferences and neighborhood design. Individuals looking for healthy and sustainable living places are setting a greater importance on energy-efficient houses, passive solar architecture, and proximity to green areas.

Within communities, housing choices and lifestyle preferences are shaped by cultural variables. The complexity of community dynamics and architectural styles is enhanced by cultural diversity. Housing complexes that honor cultural history, use traditional architectural features, or provide accommodations for certain cultural customs show the variety of lifestyles that exist within a community.

In conclusion, community patterns and lifestyle preferences shape the way that housing is designed, built, and located. Dwelling developers may design environments

that support thriving communities and improve quality of life by having a thorough awareness of the different requirements and values of people (Figure 1).

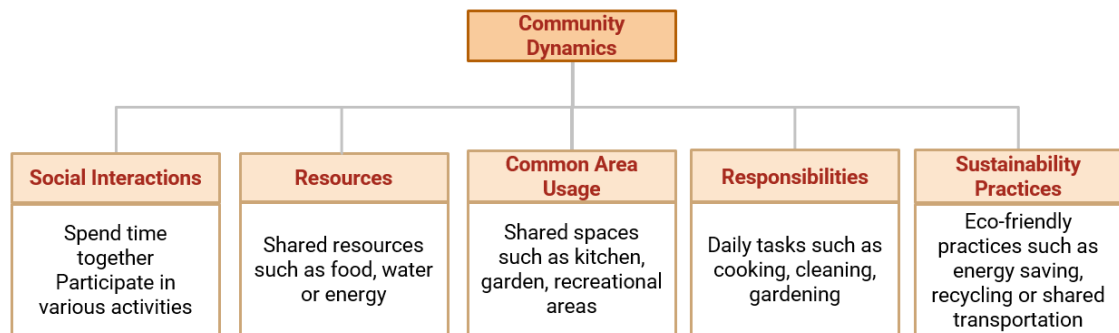


Figure 1. Factors that create community dynamics

2.2 Early Dwelling Settlements

Early dwelling settlements refer to the earliest human habitation sites where communities established permanent residences. The establishment of these communities marks a significant transition from a nomadic way of life to a more settled one, as people started raising crops, domesticated animals, and constructing permanent structures. Early dwelling settlements ranged from little farming villages to more expansive urban centers in terms of size, shape, and purpose. They were crucial for the growth of trade, agriculture, and social structure, providing a foundation for the development of advanced societies. Early dwelling communities provided individuals an actual location where they could plant roots, build social relationships, and take part in communal events. They were usually found close to agricultural land, water sources, and significant trade routes. These communities shaped the path of human history and civilization as centers of economic activity, technological advancement, and cultural interaction. members.

2.2.1 Transition from nomadic life to settled life. The transition from nomadic life to settled life represents a significant shift in human history and social organization. It occurred gradually over thousands of years and was influenced by various factors, including environmental changes, technological advancements, and social dynamics.

The term "nomadic life" represents an approach to living in which individuals or communities migrate constantly, frequently in search of resources such as food, water, or grazing grounds for their livestock (Dobrinskaya, 2016). It has been applied to cultures and societies that migrate periodically to accommodate their needs rather than settling down indefinitely. Throughout history, a variety of cultures have adopted nomadic ways of life, such as pastoralists, hunter-gatherer societies, and certain indigenous populations. Historical, ecological, economic, and cultural factors have an impact in the decision to lead a nomadic lifestyle; these factors represent the various ways that individuals adapt to their surroundings and choose different means of subsistence.

The way resources are distributed may influence nomadic daily life. Nomadic communities migrate in need of food, drink, and proper grassland for their livestock. Due to their way of existence, they are able to observe changes in the vegetation and animal motions, which ensures their access to vital supplies. Many nomadic communities keep animal husbandry and raising livestock such as sheep, goats, cattle, horses, or camels (Tumurjav, 2003). These animals provide food, milk, wool, transportation, and other necessities. Herding livestock like sheep, goats, cattle, or camels is a typical livelihood method in numerous regions, involving pastoral nomadism. Nomadic herders relocate their livestock to maximize the health and productivity of the animals and to explore new pastures and water supplies. Nomadic communities practice hunting, gathering, herding, and fishing to survive. They use a combination of traditional knowledge and abilities that have been passed down through generations, and they rely on natural resources found in their surroundings (Dyson-Hudson & Dyson-Hudson, 1980).

Nomadic communities migrate often in searching for resources, taking their households, livestock, and possessions with them. Seasonal variations, the availability of food and water, and the requirement to locate appropriate grazing grounds for their animals all frequently influence their immigrations. Nomadic communities utilize the advantages of transportable, temporary shelters that are simple to assemble together, take apart, and move. These shelters can be built of lightweight materials like fabric, woven mats, animal skins, or yurts.

Living a nomadic way of life enables individuals to be able to adapt to shifting conditions. When confronted with possibilities or difficulties, such as changes in the

availability of resources, consumer preferences, or circumstances in the environment, nomadic communities can react immediately. They have a great degree of flexibility in response to changing climatic conditions, geopolitical environments, and economic situations. They create ways of coping to deal with adversities like disagreements, droughts, or changes to their traditional way of life. Nomadic peoples have lived in different types of shelters according to the conditions.

2.2.1.1 Tents. Nomadic peoples have used a range of lightweight, movable and portable shelter alternatives that could be adapted according to their evolving requirements. These communities followed seasonal patterns of migration or migrated in search of resources; therefore, these shelters were made to be easily constructed, taken apart and carried (AL-Mohannadi & Furlan, 2019).

Throughout history, the primary kind of shelter for nomadic peoples has been tents (Figure 2). They were usually made from animal skins, hides, or woven fabrics such as wool or canvas. Various tent forms were used by nomadic communities, such as the Bedouins, the Mongols, and the Native Americans, according to their specific requirements and circumstances.

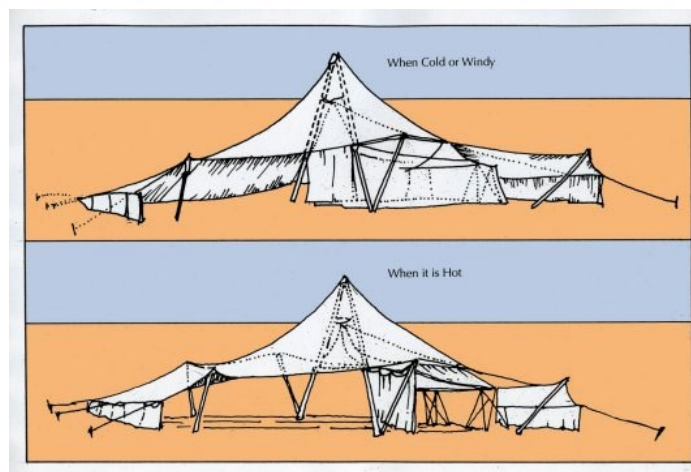


Figure 2. Customized tents to fit cold and hot weather (URL-1).

Tents are constructed to be lightweight and easily collapsible, making them ideal for nomadic communities who frequently relocate. Nomads travel multiple landscapes during their migration; thus, they require shelters that can be swiftly assembled and deconstructed.

Nomadic groups frequently inhabit a variety of habitats, such as grasslands, mountains, and deserts. Living a nomadic lifestyle frequently exposes oneself to inclement weather, including intense heat, freezing temperatures, wind, and precipitation. Tents provide a covered area where people can rest, sleep, and seek shelter during bad weather since they protect against these elements.

Tents can be customized to fit different climatic conditions and can adapt to a variety of terrain. For instance, tents may be constructed of lightweight materials or feature ventilation vents to enhance airflow in hotter areas, while insulation or extra layers may be used in colder climates to give warmth.

Tents have cultural importance in addition to serving as practical housing for nomadic communities. Different nomadic communities have their own traditional tent designs, which can differ in terms of layout, design, and materials. The cultural identity and tradition of the nomadic people who live in these tents are often reflected in them.

Herding animals is a common source of income for many nomadic communities. Tents are used as both human habitation and animal shelter. They provide a central location for overseeing livestock and storing necessities like food, drink, and tools. Nomadic communities may relocate their livestock to new grazing sites on demand due to the tents' mobility (AL-Mohannadi & Furlan, 2019).

In nomadic communities, tents are often used as a meeting place for social interaction and family life. They offer a place where families can get together for meals, storytelling, rituals, and other social events. Tents' intimate spaces strengthen social connections throughout the community and create strong familial ties.

All things considered, tents are essential components of the nomadic lifestyle, providing useful answers for housing, movement, expressing one's culture, and maintaining communal identity in the face of ever-changing surroundings.

2.2.1.2 Yurts. Yurts are traditional, portable, round-shaped dwellings that have been used by nomadic communities across Central Asia for centuries (Figure 3). Yurts are appropriate for nomadic cultures since their easy disassembly, transport, and reconstructing designs. Nomads can relocate to other locales in search of new pasture for their animals or keep to seasonal rhythms since they are able to pack up their yurts and belongings quickly (Kemery, 2006).

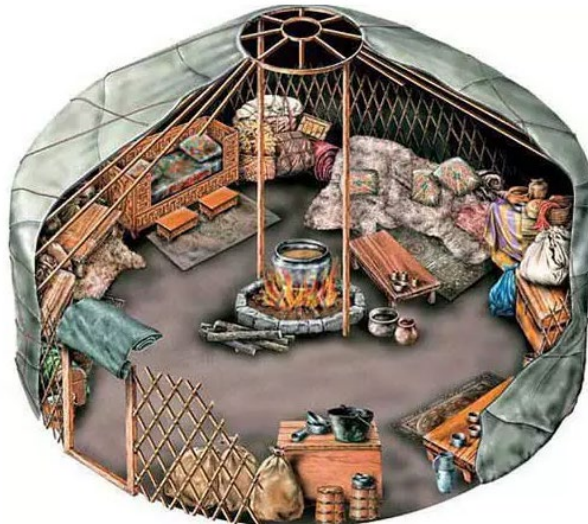


Figure 3. Depiction of inside of a nomadic yurt (URL-2).

In general, a yurt is constructed from a timber structure that is covered with canvas or felt. Rafts radiate outward to support the roof, which is supported by a central roof ring and a lattice wall. Due to its design, yurts can be stable even in windy and weather environments, which are prevalent in nomadic regions. Yurts provide warmth in cold climates and ventilation in hot climates by acting as protection against excessive temperatures. Effective insulation is provided by the thick felt covers, and ventilation is controlled by the design, which permits airflow through a central aperture at the top of the roof.

For many Central Asian nomadic communities, yurts are deeply ingrained in their culture. The cultural legacy and traditions of the nomadic communities who live in yurts are often reflected in its design, construction techniques, and decorations. Yurts are not only useful shelters but also symbols of pride and individuality (Patai, 1951).

Among nomadic communities, yurts are the center of family and communal life. Families gathered inside the yurt for meals, conversation, and other communal events. The yurt's circular design encourages a feeling of cohesion and togetherness among family members.

Yurts serve as storage facilities for goods and livestock shelters in addition to being utilized as places to reside. In order to protect their livestock from attackers and bad weather, nomadic herders keep them near to their yurts at night. Yurts also offer storage for supplies like food and tools, among other essentials.

All things considered, yurts are essential to the nomadic lifestyle of Central Asia, offering their occupants movement, shelter, cultural identity, and communal togetherness. They are ideally adapted to the difficulties of nomadic living in the region's many weathers and terrains because of their adaptable and practical design.

2.2.1.3 Teepees. The distinctive cone-shaped shelters known as teepees, or tipis, have long been the primary residence of many Native American tribes, especially those from the Plains regions of North America (Figure 4). Teepees are essential to the nomadic life of many Native American tribes because they provide communities and individuals a movable, strong, and culturally significant shelter when they travel across the vast Plains regions (Hughes, 2011).



Figure 4. Depiction of a nomadic teepee (URL-3).

Teepees are extremely lightweight constructions due to their easy construction, disassembling, and transporting techniques. Nomadic tribes were able to relocate rapidly, either by hunting wildlife or by following seasonal trends and packing up their teepees and belongings.

Long poles are arranged in a conical shape to create teepees, which are then covered with animal skins, mostly buffalo hides. A structure can be rapidly built and fastened without the need for long-term foundations or bolts since it is kept together by rope or thongs made of leather. Teepees protect from wind, rain, and extremely high or low temperatures, making them ideally suited to the extreme conditions seen

in the Plains regions. The firmly fastened hides act as protection against cold weather, while the conical shape allows wind to flow around the structure with ease.

Teepee design and decorating mostly represent tribal rituals, beliefs, and unique family identities. Teepee construction and decoration retain cultural and religious significance for many Native American tribes. Teepees serve as functional shelters and symbols of a community's identity and heritage.

They also provide central gathering spaces for families and community activities in the neighborhood. Families prepare meals, eat, sleep, and communicate with one another inside the teepee. They are adaptable constructions that can be used for more than just shelter. They can be used as short-term accommodations for guests, as ceremonial places for religious or cultural events, or as shelters to store supplies and food.

2.2.1.4 Chum. Chum generally refers to a traditional shelter used by Siberian indigenous individuals, especially the nomadic reindeer hunters. Another name for these shelters is chums or chooms (Usenyuk, Dudeck, & Garin, 2015). Chums have a framework of timber poles wrapped in felt, canvas, or animal skins to resemble tents (Figure 5).

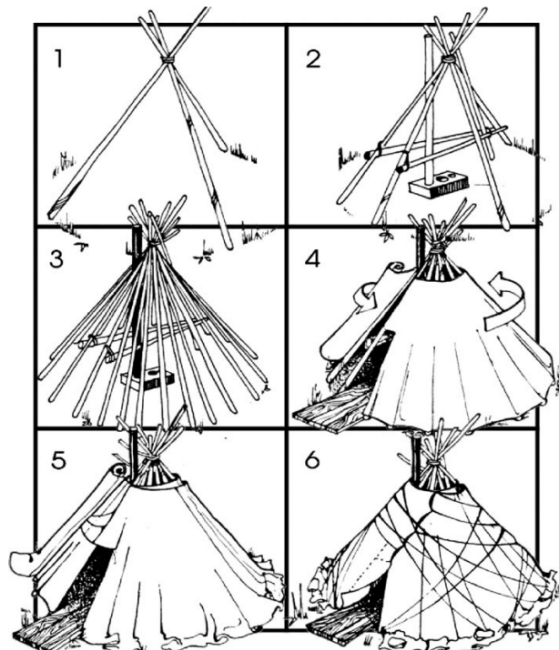


Figure 5. The assembly scheme of a chum (Garin, 1991).

The frame of the chum is often collapsible, allowing for easy assembly and disassembly as the nomadic communities immigrated from one location to another. They have been designed to be mobile since reindeer herders who live on the tundra can follow their herds as they immigrate across it in search of grazing areas.

The portable nature of chums enables easy movement and adaptation to changing environmental circumstances (Usenyuk, Dudeck, & Garin, 2015). Chums provide protection from hard weather conditions such as snowstorms, strong winds, and frigid temperatures, which are common in the Siberian tundra. Even in severe weather, the insulated interiors and thick covers help to maintain warmth and keep individuals comfortable. They are spherical or conical in shape and usually have a central opening at the top for ventilation and smoke from the fire pit inside (Figure 6).

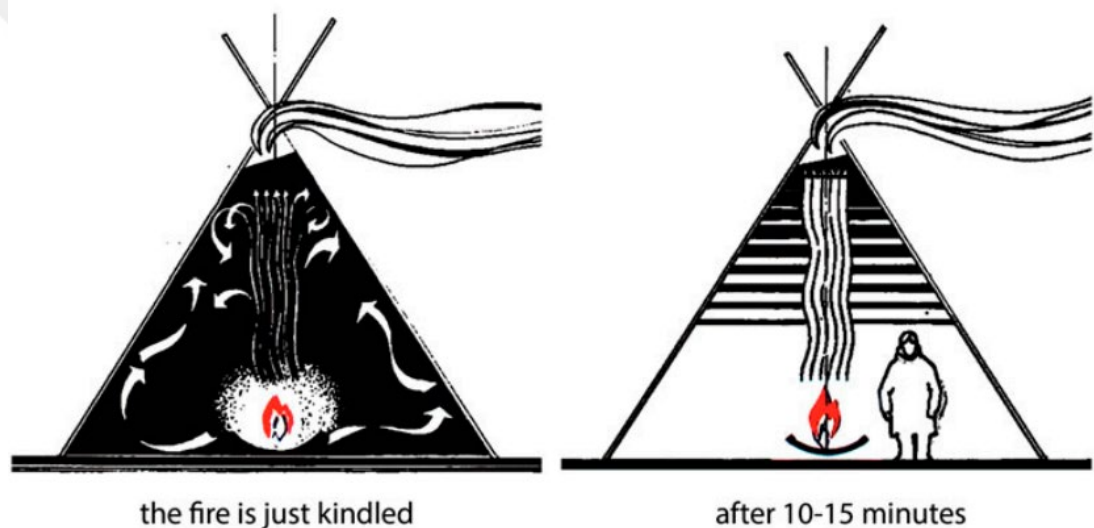


Figure 6. Heat distribution inside the chum (Garin, 1991).

Chums symbolize not only functional shelter but also the native inhabitants of Siberia's cultural identity and heritage. The traditional handicrafts and artistic characteristics of the nomadic communities who live there are reflected in the design and decoration of chums. They also serve as gathering spaces for family and community activities. The chum's interior warmth and closeness create a sense of connection and solidarity among the nomadic individuals.

Chums are essential to the nomadic existence since they serve as a basis for activities like cooking, crafting, and storing products in addition to serving as a shelter. Families that raise reindeer for livestock commonly keep their herds near neighbors so that milk, meat, and transportation are easily accessible.

In general, chums are essential to Siberian indigenous peoples' nomadic way of life because they provide these people with a place to live, mobility, a means of expressing their culture, and a sense of community in the difficult environment of the northern tundra.

2.2.1.5 Kibitka. Traditional felt-covered houses known as “kibitka” or “kiyiz” are used by nomadic communities in Central Asia, especially by communities of Turks and Mongolians (Figure 7,8). Kibitka are usually oval or round tents covered in layers of felt or animal skins. They are constructed on a timber frame. The frame is made out of collapsible wooden poles that support the shelter's structure. Insulation and weather protection are provided by the felt outer layer. Kibitka' thick felt covering provides insulation against extremely high and low temperatures, keeping the interior warm in the winter and cool in the summer. Kibitka's construction offers protection against wind, rain, and snow as well (Drew, 1980).

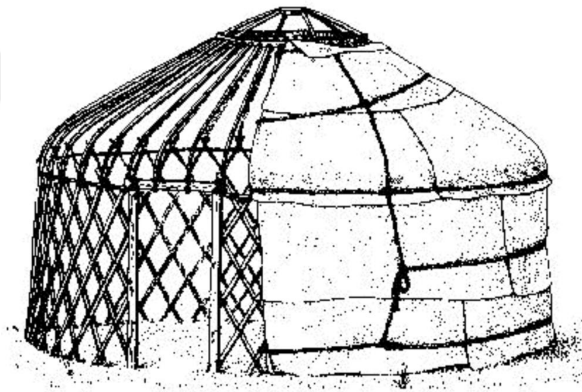


Figure 7. Turks Kibitka (URL-4).

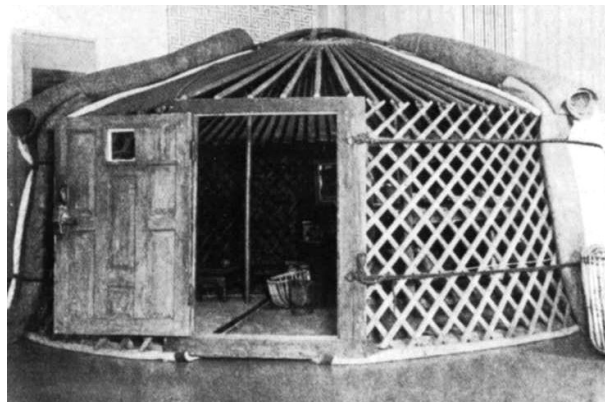


Figure 8. Mongol Kibitka (URL-5).

Kibitka are suitable for nomadic communities due to their easy disassembly and portability design. If required, nomad communities can immediately gather their belongings and kikitka and migrate to other grazing areas or temporary sites. For the Central Asian nomadic peoples, kikitka serves as significant cultural emblems. The design, decorative elements, and arrangement of kikitka often represent the traditions and heritage of the communities who live there. They could be embellished with embroidery, vibrant fabrics, or other decorative elements that have deeper symbolic meanings.

Kibitka are the hub of activity for families and the community. Families prepare meals, dine, sleep, and interact with one another inside the kikitka. The interior's circular design fosters a feeling of cohesion and intimacy among individuals in the tribe. Kibitka provide an environment for activities like cooking, artwork, and supply storage in addition to shelter. Since it's easier for them to have access to milk, meat, and transportation, nomadic herders often keep their animals near to their kikitka (Drew, 1980).

Kibitka are vital to the Central Asian nomadic life since they provide the people who use them with a place to live, freedom of movement, a means of expressing their culture, and a sense of community (Drew, 1980).

All things considered, the nomadic lifestyle is a vibrant and tenacious way of life that has endured for thousands of years in many places and cultures. A significant change in human history was the movement from agrarian hunter-gatherer societies to settled communities, which symbolized an advance toward permanent settlement and agriculturally based livelihoods. This change developed progressively and was influenced by many different environmental, social, and technological conditions.

Early nomadic communities comprise of close relatives or extended family members. Instead of fighting it by themselves, these communities relied on collaboration for hunting and gathering food from animals. Over time, there likely emerged a pattern of seasonal migration and repeated returns to specific areas with wealth in resources places. As communities recognized the benefits of returning regularly to known areas for guaranteed food sources, this repetitive activity may have set up the environment for a less active way of life.

The development of agricultural abilities, including crop cultivation, animal domestication, and selective plant breeding, assisted in converting to settled life. Following the achievement of agricultural processes, the establishment of settled life became achievable. Communities were able to devote time and energy to other activities, such as crafts and trades, once reliable food sources were guaranteed. The formation of multilayered societies with various social roles and economic activity was made possible by the diversification of labor.

2.2.2 Early settled life and urban settlements. Early settled life and dwelling advancements are strongly related to the agricultural revolution, an important era in human history. The transition from a hunter-gatherer way of life to a sedentary way of life centered on agriculture and animal husbandry is symbolized by the agricultural revolution. People began to learn about agriculture, plant cultivation, and the domestication of animals at this time. They also began to construct permanent dwellings and establish settled communities as a result of this transition.

The development of early dwelling was crucial for the establishment of permanent settlements, the growth of communities, and the emergence of complex societies. It provided the foundations for social structure, urbanization, and the advancement of civilizations. Therefore, the emergence of early settled life and dwelling innovations, which brought in a new period defined by agricultural methods and sedentary existence, are essential elements of human history.

The Neolithic age has been one of the most important periods in the history of human culture and settled life. This era consists of two periods, the early and late neolithic period. The people who started to cultivate the land with the Neolithic Age passed the first settled life in this period (Kuijt, 2000). People used to live mostly by hunting and gathering since nomadism was prevalent in previous eras. With the transition to the late neolithic age, land use became widespread with the settled life. People began to use the soil in their dwellings in addition to producing clay as a daily item. They began to build more durable and secure dwellings in order to be protected from external factors in settled life. Families who lived close to each other formed settlements and lived as communities. The houses were originally built in a circular plan, half-buried in the ground. From the Neolithic age, they realized that the spatial layout of the rectangular plan was more efficient, and they evolved their housing

designs into this plan typology. Another effect that led to this direction was that while round planned houses allowed a small number of individuals to live, large families could stay in rectangular planned houses. The concepts of rooms, stairs and courtyards have also been encountered since those times. Also, the materials used in the buildings and the architectural structure varied from one region to another.

2.2.2.1 Çatalhöyük, Konya. Çatalhöyük, located in Konya, Türkiye is considered to be the oldest and most developed settlement in the world. It dates to approximately 7500 BCE. This mound was discovered by James Mellaart in 1958. It has hosted a settled life for 2000 years. There are 14 structures in this settlement from the Neolithic age. It is estimated that around 5000 to 10000 people live there. One of the most striking features of the residences here is that they do not have doors. It is estimated that the houses were entered from the roofs with a wooden staircase (Figure 9,10).



Figure 9. Interior of Çatalhöyük houses (Author, 2022).



Figure 10. Entrance to the house with wooden stairs from the roof (Author, 2022).

Another feature of it is that, unlike other settlements, it passed into the urbanization phase beyond the village settlement. The houses were at the adjacent order level. Each house had storage. The streets did not pass between the houses with flat roofs (Figure 11).

There were separate sofas for sitting, sleeping and working in the rooms. Large houses, indicated by several platforms, areas envisioned as cellars, parts where tools and equipment are made, rooms with ovens and stoves, actually demonstrate that today's housing concept was established from those times. They buried their dead relatives under their houses, Earliest Neolithic (New Stone Age) Settlement, 5000-8000 people lived here, wooden ladders provided access from roof to another roof, During the 1400 years of existence, there is no sign of a war.



Figure 11. Çatalhöyük excavations (Author, 2022).

2.2.2.2 Scara Brae, Scotland. Dating from approximately 3100 BCE, it is one of the most comprehensive and well-preserved Neolithic communities in Western Europe. Skara Brae was revealed by a severe storm in 1850, which blew away the sand dunes covering the site (Figure 12). Right after recovering, several stone-built structures were discovered during the first excavations carried out in the mid-19th century by Scottish antiquarian William Watt. The largest excavations were conducted

between the 1920s and 1930s, with archaeologist V. Gordon Childe in charge. These excavations resulted in comprehensive insights into the village's architecture and layout in addition to revealing the village's whole size (Childe, 1931). Several finds have been revealed at Skara Brae excavations, including decorative products, animal bones, ceramic fragments, and stone tools. Notable discoveries are carved stone balls, bone and shell jewelry, and intricately decorated ceramics. The artifacts provide important new perspectives on the daily activities, customs, and technologies of Skara Brae's Neolithic inhabitants (Childe, 1931).



Figure 12. Scara Brae community (White, 2022)

Skara Brae is a remarkable example of the Neolithic peoples' inventiveness and tenacity, providing important insights into their technology, architecture, and social structure. It is a tiny community made up of eight clustered dwellings joined by covered corridors. Each dwelling is constructed of stone and has an oval or circular shape. The walls are constructed with flagstones that were obtained locally (Childe, 1931). Since their half subterranean construction, the dwellings probably offer insulation and protection from the severe Orkney weather. Each dwelling has a central fireplace for warmth and cooking, as well as stone-built beds, bookcases, and alcoves for storage (White, 2022). Dry stone masonry, in which stones are packed closely together without the use of cement, is the method used to build the dwellings at Skara Brae. Due to their thickness and strength, the walls offer stability and weather resistance. Stone-built shelves and cabinets are a highlight of certain dwellings, demonstrating a high degree of skill and attention to detail in their design (Simpson, Guttman, Cluett, & Shepherd, 2006).

Skara Brae provides insights into the social structure and way of life of its inhabitants. The dwellings' close relationship to one another and their connected passages imply an intimate neighborhood. Stone-built furniture and storage buildings point to a settled way of life focused on domestic work, fishing, and agriculture. Extensive cultural and religious existence is suggested by evidence of collective rituals and ceremonies, such as the existence of stone carvings and burial sites (Simpson, Guttman, Cluett, & Shepherd, 2006).

Skara Brae's extraordinary existence can be attributed to its thousands of years of burial in sand dunes, sheltering it from erosion and human interference. Skara Brae's exceptional global value and cultural significance were acknowledged when it was listed as a UNESCO World Heritage Site in 1999. It is open to the public and offers visitors the chance to tour this Neolithic village and discover what life was like over 5,000 years ago (Simpson, Guttman, Cluett, & Shepherd, 2006).

2.2.2.3 Skorba, Malta. Skorba, the Neolithic settlement located in Malta, is a significant archaeological site that provides important insights into the Maltese Islands' prehistoric past. The Skorba settlement was established approximately between 5200 and 4500 BCE, during the early Neolithic era (Trump, 1961). The site was discovered in the early 20th century, but archaeological excavations began in the 1960s by David Trump (Figure 13).



Figure 13. The Skorba Community (URL-6)

The Skorba community consists of both residential and religious structures. Large limestone stones were used to construct the megalithic structures that make up the temple complex at Skorba, which is the site's most notable architectural feature. Megaliths of irregular shapes arranged in a rectangular or oval arrangement define the Skorba temples. Apart from the temples, archaeologists have found evidence of smaller stone buildings that were probably used as dwellings by the Neolithic inhabitants (Trump, 1966).

Skorba excavations have produced a remarkable collection of artifacts that provide insight into Neolithic culture, technology, and creative expression. One of the most prevalent kinds of artifacts found at the site is pottery which is painted ceramic vessels. Additionally, stone tools including scrapers, axes, and knives were discovered which demonstrating the Neolithic individual's advancement in technology. Individual accessories like bone, shell, and stone beads indicate a certain amount of social complexity and artisan specialization within a community (Renfrew, 1972).

The Skorba community settlement's arrangements shows a certain level of social organization and planning. Temples that are shared by the community are evidence of a common religious or ceremonial practice, and they may also function as hubs for rituals or social events (Renfrew, 1972).

Skorba is significant since it assists in comprehending how prehistoric communities in the central Mediterranean region developed. The location offers crucial information for researching the change from nomadic hunter-gatherer societies to established agricultural groups. It also provides insights into Neolithic cultural, religious, and technical developments.

2.2.2.4 Jericho, West Bank. The Neolithic settlement located in West Bank, provides significant insights about the transition from nomadic hunter-gatherer societies to settled agricultural communities (Figure 14). One of the world's earliest known urban towns, Jericho was established during the Early Neolithic period, approximately 10,000 BCE. It remained occupied throughout the Neolithic era and beyond (Kenyon, 1956).

Since the late 19th century, Jericho has been the focus of intensive archaeological investigation and excavation. Significant excavations at the site were carried out by academics like Kathleen Kenyon and John Garstang, who found layers of occupation and produced important information for comprehending the beginnings of urbanism and complex societies in the ancient Near East (Kenyon, 1954).

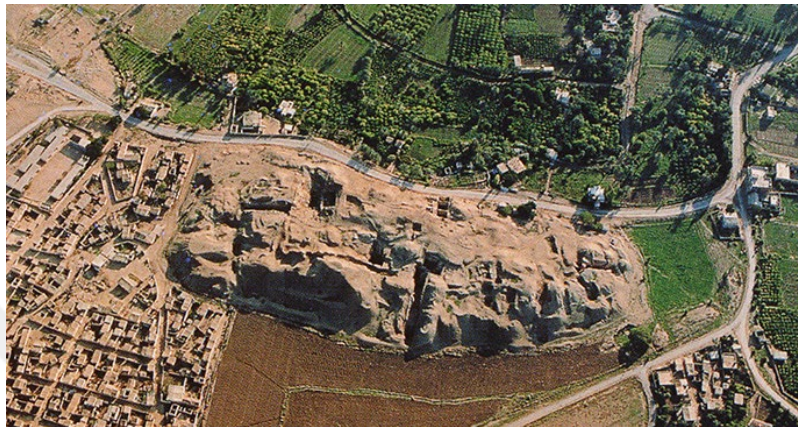


Figure 14. Jericho agriculture communities (Pangere, 2022).

Circular mudbrick dwellings, some shaped like honey bees, were built by the community's early inhabitants. Usually, these structures formed tiny communities when gathered together (Figure 15). In addition, the settlement had defensive walls, including the well-known Wall of Jericho, which is among the oldest fortifications in human history (Pangere, 2022).



Figure 15. Tower of Jericho (Pangere, 2022).

Families or extended groups lived close to one another within the community, suggesting that the civilization of ancient Jericho was based on relationships with relatives. The evidence points to a largely egalitarian social structure, however certain people may have occupied leadership or authoritative roles in the community.

The discovery of ritual objects, figurines, and tombs during the Jericho archaeological excavations has provided evidence of religious rites and beliefs. The settlement might have been a cult or religious center, and possibly the communal dwellings were used for rituals (Kenyon, 1954).

The advantageous location of Jericho along trade routes that connected the interior regions of the Levant with the Mediterranean coast allowed for the flow of thoughts, products, and cultural influences. The existence of imported items like obsidian, shells, and minerals is shown by archeological evidence, underscoring the interdependence of Neolithic communities in the area (Pangere, 2022).

2.2.2.5 Derinkuyu, Türkiye. The Neolithic underground settlement located in Cappadocia, Türkiye is one of the most extraordinary and massive subterranean systems on Earth, a singular achievement of prehistoric construction and engineering (Figure 16). Derinkuyu's construction is thought to have begun in the Byzantine era, however some of the complex's earliest components may have been developed during the Hittite or Phrygian eras. It was presumably occupied and grew throughout several centuries, providing the local populace with a safe haven and defensive bastion in times of conflict, persecution, and invasion.



Figure 16. Conceptual Section of Derinkuyu, (Stewart, 2019).

Derinkuyu was primarily designed with defensive and functional purposes in consideration. It provided defense against raids, advancing armies, and natural calamities like earthquakes during times of strife. It was also possible to live in the underground metropolis year-round because it offered a warm haven in the winter and a cool haven in the summer.

In order to provide for its citizens, Derinkuyu, an underground city, has a number of amenities. These include stone doors to safeguard access, wells and water storage tanks for drinking water, ventilation shafts to supply fresh air, and common spaces like kitchens, meeting rooms, and chapels. The fact that some of the larger chambers were possibly used as workshops or stables shows how independent the subterranean community was.

To keep off enemies and defend the citizens, Derinkuyu was built with a number of clever defense measures. These include low ceilings and narrow pathways to prevent people from moving openly, massive stone doors that can be pulled into position to block entrances, and secret tunnels and traps to trick and startle would-be assailants. Enemies found it challenging to break into and take control of the underground metropolis due to its complex structure and well-planned layout.

Derinkuyu offers useful details on the daily activities, structures, and technologies of Anatolia's Byzantine era. It demonstrates how adaptive and inventive ancient societies were in adjusting to their surroundings and fending off outside dangers. The site has gained worldwide popularity as a tourist destination, inviting people from all over the world to explore its maze-like chambers and tunnels. It is also significant culturally to the local community.

Since the 1960s, Derinkuyu has been the subject of archaeological study and excavation, providing new insights on the construction process and history. In order to facilitate tourism while maintaining the integrity of the site, efforts have been made to conserve and maintain the underground city for future generations. These efforts include the construction of lights, ventilation systems, and visitor facilities. Overall, Derinkuyu is an outstanding example of how people have adapted to difficult circumstances and a monument to the creativity and resourcefulness of past civilizations.

2.3 Vernacular Architecture

In Latin, the word vernacular, which is used to describe the vernacular architecture, means natural. Many different people have defined it in various ways. Oliver defined vernacular architecture as the architectural language of the people with its ethnic, regional and local dialects: the product of non-experts. (Oliver, 2006). Curl (2006) explained vernacular architecture with the help of adjectives. He claimed vernacular structures as unpretentious, simple, indigenous, traditional structures made of local materials and following well-tried forms.

Dwelling emerges as a necessity for shelter, affecting the lives of humanity while also defining the settlement plan. This is the basic indicator of cultural formation. When examined in its own history, housing, which is influenced by the effects of the cultural environment, topography, and social activity, obtains a unique identity in its region (Curl, 2006). When examining the settlements around the world, a very diversified map will be revealed. In fact, even in regions with identical natural conditions, various plan schemes, materials, and physical appearances are encountered due to the influence of different cultures. This demonstrates the diversity of traditional life. The type of dwelling, influenced by the effects of the cultural environment, topography, and social activity produces a unique identity for its region. The identity of a place is influenced by several natural and human factors such as geography, people and culture. It is essential to examine the relationship between these factors since they generate the architecture (Salman, 2018). This approach led to the emergence of vernacular architecture. Salman (2018) stated that vernacular architecture is the built environment created based on society's needs.

2.3.1 Main feature of vernacular architecture. Vernacular architecture dwelling examples reflect their geographical features and human life. For this reason, the factors affecting vernacular architecture can be divided into two as natural and human factors. Vernacular architecture was characterized as a functional shelter for people, animals and stores; 'built to meet needs', constructed according to the availability and performance of materials and formed in response to environmental and climatic conditions (Oliver, 2006).

While natural factors can be a local environment, natural materials and climate; human factors can be examined in the titles of culture and experiences. The local environment, as one of the natural factors, is the main factor that will form the structure of the house because the dwelling will be shaped according to the local environment. It is divided into biotic elements and abiotic elements. Biotic elements involve living parts of the environment which are plants, animals and human beings (Kabata-Pendias & Szteke, 2015). On the other hand, abiotic elements involve non-living parts of an environment such as land, water and air. Some fundamental design decisions are implemented under the influence of environmental factors. For example, if wild animals are around, structures will be built more durable. If the settlement is located in a forested area, the use of wood may be preferred. According to the features of the land, the use of mud or stone may be preferred.

The envelope of the dwelling is undoubtedly the first place where climatic effects will be observed. Zhai and Previtali (2010) claimed that according to the mass of walls, vernacular housing should be divided into two categories: massive and lightweight. Lightweight wall dwellings are becoming increasingly prevalent as the temperature becomes hotter and more humid. Massive wall dwellings were used in desert climates transferring heat absorbed externally during the day into the structure at night, and then doing the opposite during the night (Figure 17). Massive wall dwellings were used in cold climate store and reradiate heat, and reduce infiltration by creating a tight envelope (Zhai & Previtali, 2010). Also, they claimed that according to the roof construction, we can assume the climate of the region (Figure 18).

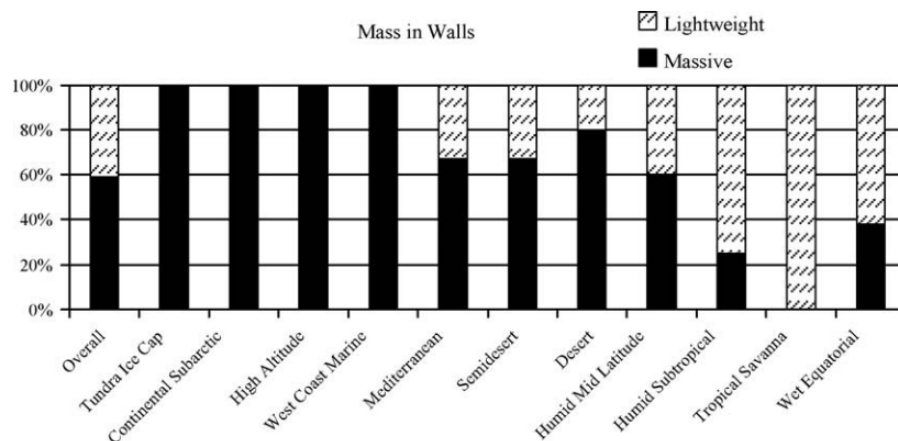


Figure 17. Observed wall mass types in percentage of dwelling in individual climatic regions (Zhai & Previtali, 2010).

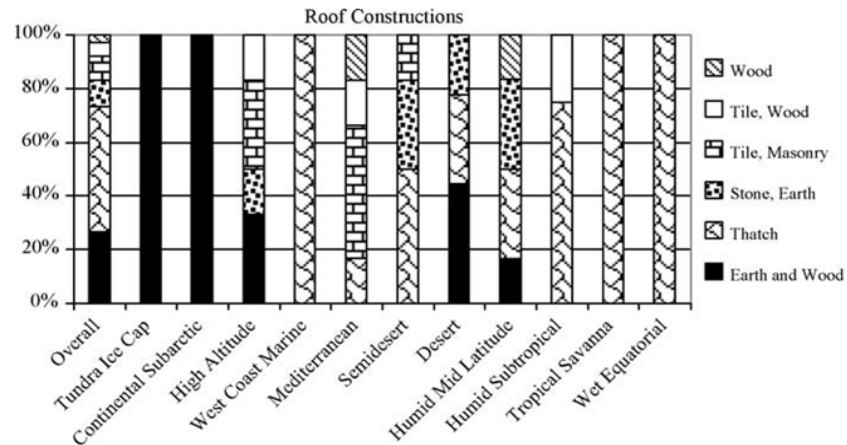


Figure 18. Observed roof material types in percentage of dwellings in individual climatic regions (Zhai & Previtali, 2010).

While constructing traditional buildings in ancient times, the characteristics of the geography should have been analyzed very well (Cromley, 2008). According to Cromley (2008), “Vernacular architecture is understood to mean the building of the people, built by the people. It does not refer to buildings designed and constructed by professional architects and builders for the people which, in suburban housing for example, may be considered as popular architecture. Vernacular architecture is the result of intense research and development to provide a habitable shelter in a particular climate utilizing materials efficiently and well-established construction techniques (Coch, 1998). Since the beginning of dwelling structures, solar passive techniques were used to achieve thermal comfort due to the lack of knowledge about construction techniques, technology and material diversity (Figure 19).

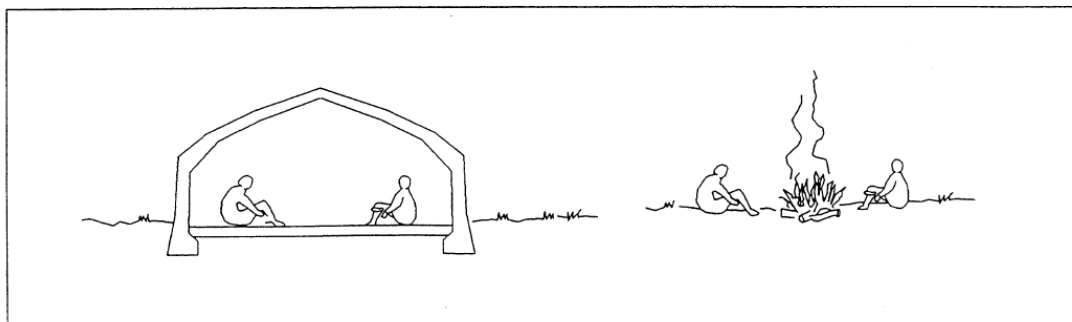


Figure 19. Architectonic views: constructive or energetic (Coch, 1998).

2.3.2 Other factors that influence vernacular architecture. Stone, tile, reed, bark, leather, felt, wood or grass were mostly used as a roofing material. Appropriate materials were selected depending on the raw material and the region's environment and climate. Since the roofing material provides such a significant place in insulation and thermal comfort, the climate and geographical characteristics of the location where the house is located can be inferred from the roof (Figure 20). For example, Indonesia's oldest vernacular architecture Javanese houses are categorized into kinds according to roof types. The thermal comfort in the inside and the arrangement of the rooms were used to determine the roofs of the houses (Culture, 2019).

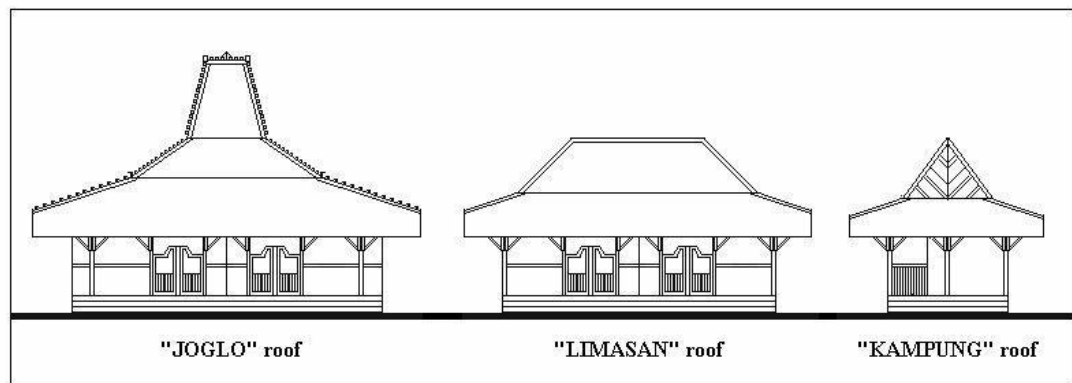


Figure 20. Front view of buildings with various roofs (Culture, 2019).

While the widespread usage of the masonry stone production system in the Eastern Anatolia Region, where stone supplies are sparse, cannot be explained by concrete evidence, it may be explicable through intercultural and historical contact. As an example, non-Muslims lived in the majority of the locations where the stone-making technology was used at the time in the early twentieth century. Remains of stone structures in and around Kars also demonstrate that the region has traditionally had such a building knowledge, bolstering the idea of cultural continuity. There are certain abstract variables that spread stone architecture in the region based on these; it can be claimed that the historical and intercultural interaction established by these allows for this technology transfer. When variety cannot be explained by concrete factors, such as wars, expeditions, commercial relations, migrations, and so on, which provide technology transfer in geography like Anatolia with a rich historical and

demographic mosaic, are used. While examining ancient vernacular housing strategies, the impact of intercultural interaction should also be taken into account.

Vernacular architecture is the result of intense research and development to provide a habitable shelter in a particular climate utilizing materials efficiently and well-established construction techniques. From the beginning of dwelling structures, passive solar systems have been used to achieve thermal comfort due to the lack of knowledge about construction techniques, technology and material diversity. However, since similar methods were applied until this process, it can be said that vernacular architecture dominated the world until the industrial revolution. Until the industrial revolution, people designed their dwellings with similar approaches. On the other hand, after the industrial revolution. Social groups and new construction methods emerged and due to the developing technology, new raw materials and new functional houses have been

Material knowledge and technological developments did not progress at the same rate over the world. With immigration and trade, the Industrial Revolution, which began in Europe in the 18th century, began to spread around the world. Vernacular architecture began to give way to new forms of buildings developed with new materials and construction processes that could provide shelter in all conditions beginning in the twentieth century.

2.4 The Impact of the Industrial Revolution on Housing Evolution

The Industrial Revolution is a period that began in England in the late 18th and early 19th centuries and then spread throughout the world. This period is characterized by a series of technological, economic and social changes. In order to comprehend the necessity of the Industrial Revolution, it is imperative to take into account the prevailing economic, social, and technological circumstances at that era. Firstly, agricultural societies relied on human and animal power for production, but the efficiency of these methods was limited. Increasing demand along with the expansion of trade increased the need for faster and more efficient production methods. Furthermore, more efficient resource use and the acceleration of the urbanization process contributed to the Industrial Revolution's emergence. Technological advances, especially innovations such as steam power and textile machinery, increased

the efficiency of production processes and allowed new industries to develop. As a result, the Industrial Revolution was born with a combination of economic, social and technological conditions and initiated a major transformation in human history.

2.4.1 Leading factors facilitating industrialization. The Industrial Revolution can be attributed to a variety of reasons, which are connected back to a complex network of interconnected factors. Firstly, technological advancements were critical at the start of the revolution. Inventions such as the steam engine, mechanized textile production, advancements in iron and steel production and transportation improvements, advances in communication and innovations in agriculture facilitated the shift from agrarian economies to industrialized ones. Those developments had a profound impact on production and efficiency, hence establishing the foundation for extensive industrialization.

Firstly, James Watt's important improvements of the steam engine in the late 18th century is considered one of the pivotal moments in human history. James Watt is often credited with inventing the steam engine. However, the steam engine is invented by Thomas Newcomen. Those improvements developed by Watts, which triggered the Industrial Revolution, fundamentally transformed societies and economies around the world. Before his innovations, steam engines were inefficient and had limited applications. They were usually used to extract water from mines (Lovland, 2007).

The influence of the steam engine was profound and widespread. It greatly increased production and efficiency by increasing production by strengthening the machines in factories and mechanizing industries such as textiles, iron production and agriculture. Steam-powered locomotives and ships revolutionized transportation, facilitating trade and connecting distant markets by enabling faster and cheaper transportation of goods and people. People migrated from rural areas to cities in search of job opportunities, accelerating urbanization through this transportation revolution and the rise of steam-powered factories. The steam engine's increased efficiency and productivity spurred economic growth, increasing prosperity and raising living standards for many people (Wilde, 2019). In short, the invention of the steam engine marked the beginning of the Industrial Revolution and laid the foundation for the modern industrial economy (Figure 21).

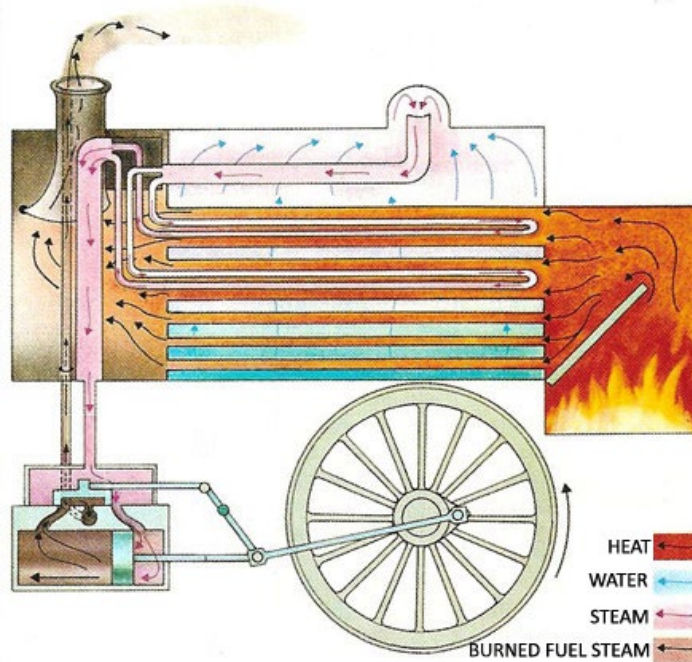


Figure 21. Operation of a steam engine (Wilde, 2019).

Transportation advancements during the Industrial Revolution revolutionized the movement of goods and people, spurring economic growth and urbanization. Canals encouraged trade and facilitated the growth of industries by providing an efficient method of transporting heavy and bulky goods over long distances. The development of steam railways offered faster and more reliable land transportation, connecting rural areas to urban centers and enabling the expansion of industries such as coal mining, iron production and manufacturing. Steamships revolutionized maritime transportation, reducing travel times and facilitating global trade by connecting distant markets. Additionally, improvements in road infrastructure has supported economic development and urbanization, providing better access to markets and transportation networks between countries and regions. Improvements in transportation also played a crucial role in the urbanization process, as they connected rural areas to urban centers, enabling the migration of people from the countryside to cities in search of employment opportunities.

During the Industrial Revolution, innovations in agriculture drove significant population growth through several interconnected factors. Mechanization, which greatly increased agricultural productivity, was achieved through the introduction of machines such as the seed drill and mechanical harvester, enabling farmers to produce more food with fewer resources and less labor.

Additionally, the adoption of crop rotation techniques and selective breeding methods has led to healthier and more resilient crops, further increasing yields. These advances have not only ensured a more reliable food supply but have also improved overall public health and reduced mortality rates by promoting dietary diversity (Figure 22).

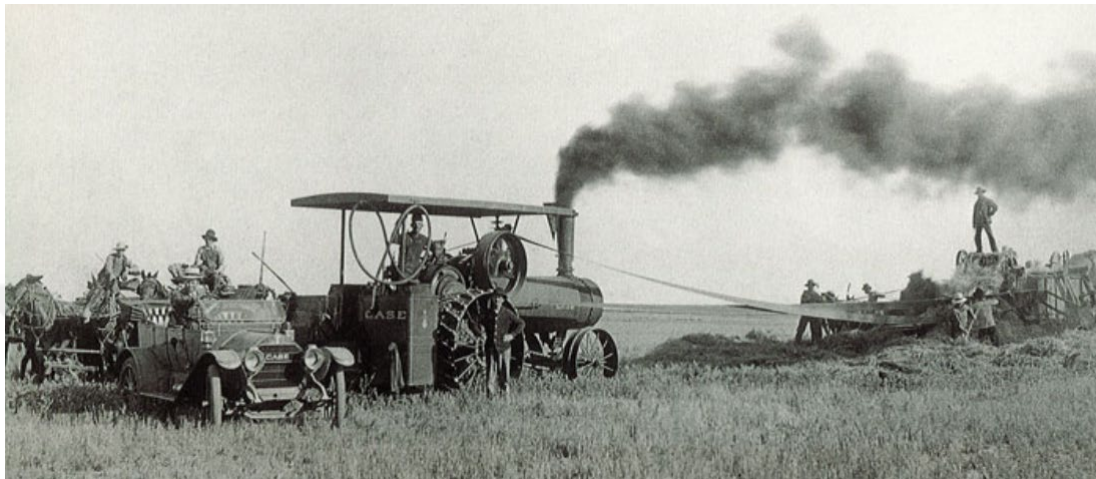


Figure 22. Mechanization in agricultural production (Staff, 2023).

Agricultural land expansion through initiatives such as the enclosure movement provided additional land to increase agricultural output (Figure 23,24). This surplus food production was critical to sustaining a growing urban population as rural laborers migrated to industrial centers in search of employment opportunities (Westrich, 2017).

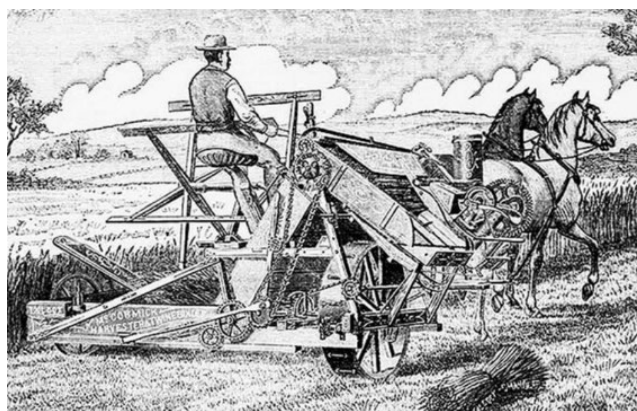


Figure 23. Emergence of working class-a (Staff, 2023).

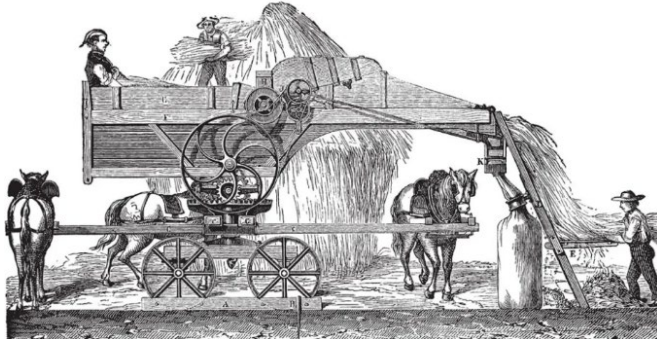


Figure 24. Emergence of working class-b (Staff, 2023).

Urban living has also contributed to improved public healthcare infrastructure, which further accelerates population growth by reducing disease spread and mortality rates. The synergy between agricultural innovations, urbanization, and industrialization, which created a demographic shift in which the urban population grew rapidly and contributed to the overall expansion of society, played a fundamental role in stimulating population growth during the Industrial Revolution in general (Figure 25).

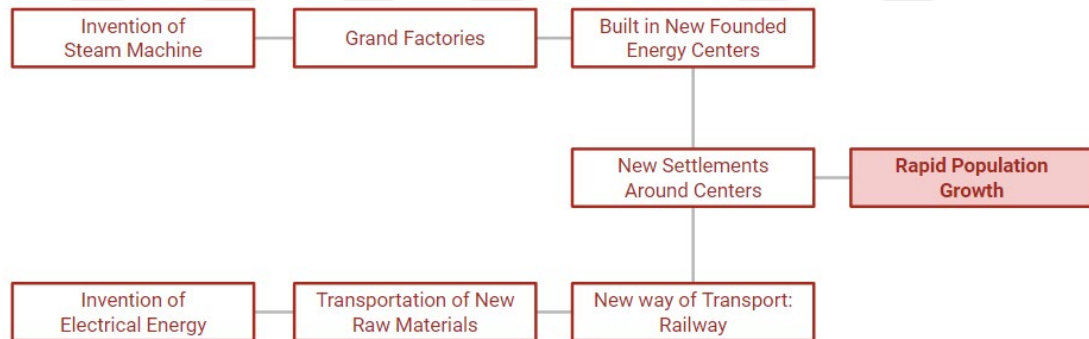


Figure 25. The impact of the industrial revolution on population growth (Author, 2023).

With the Industrial Revolution, the working population in cities increased rapidly, but this increase generally led to poor conditions in which low-income worker families lived. The relationship between the working class and social housing is an issue that emerged in the industrial period and still maintains its importance.

2.4.2 Emergence of social housing. The use of machines in production, the spread of factories and the change in industrial production processes accelerated the formation of the working class. The Industrial Revolution catalyzed a profound transformation in societal structures, particularly the rapid urbanization it spurred and the consequent formation of a distinct working class. As agricultural practices waned in profitability and allure, many rural inhabitants migrated to burgeoning urban centers in search of employment opportunities offered by the burgeoning industrial sector. This mass migration fueled the swelling ranks of factory workers, fundamentally altering the demographic landscape of cities.

The surge in urban populations far outstripped the capacity of the existing housing stock, precipitating a dire housing crisis for the burgeoning working class. The confluence of burgeoning population densities and inadequate housing infrastructure consigned many workers to squalid, overcrowded living conditions within urban slums. These dwellings, often lacking basic amenities and sanitation facilities, posed grave threats to the health and well-being of their inhabitants.

Recognizing the urgent need to ameliorate these dire circumstances, governments began to devise social housing policies aimed at providing affordable and habitable living spaces for low-income families. Typically underwritten or directly managed by governmental bodies, these initiatives sought to redress the acute shortage of suitable housing options confronting the working class. Such policies not only improved the material conditions of workers' lives by facilitating access to decent housing, but also helped to mitigate the burgeoning social divisions exacerbated by stark disparities in living standards.

Nonetheless, the burgeoning urbanization and concomitant housing crisis engendered a palpable schism between the working class and more affluent segments of society. Initially, efforts to address the housing shortfall prioritized quantity over quality, leading to the proliferation of hastily constructed, substandard housing units. As urban centers became more congested, affluent residents sought refuge in the tranquility of suburban enclaves, leaving behind a cityscape increasingly characterized by the concentration of low-income workers.

This spatial and socioeconomic segregation further accentuated class distinctions, perpetuating a cycle of social stratification and exacerbating disparities in living standards. As affluent residents retreated to the periphery, urban cores became

disproportionately populated by the working class, exacerbating the strain on already overburdened infrastructure and exacerbating social tensions.

In the early stages of the Industrial Revolution, living in social housing was inconvenient and unhealthy for several reasons. First of all, while the population increased rapidly in cities during this period, housing supply was insufficient to meet demand. This often led to overcrowded living conditions in social housing. Many families had to live together in small apartments or even in a single room. This dense crowd created problems for both physical and psychological health.

In addition, hygiene standards in social housing were often inadequate (Patino & Siegel, 2018). While common toilets and bathrooms were frequently used, sufficient precautions were not taken regarding cleaning and maintenance. Since infrastructure systems such as water and waste management are inadequate, the risk of spreading diseases and infections has increased. This caused his health problems to worsen. Diseases such as typhoid, cholera and tuberculosis broke out frequently in social housing. These diseases seriously affected the health of residents and led to deaths.

Security risks were also common in social housing. Crowded and cramped housing increased the risk of disasters such as fire. However, firefighting equipment and emergency exit routes were often inadequate. This seriously threatened the safety of those living in the residences.

After the Industrial Revolution, various types of social housing emerged. These include different models such as worker housing in industrial areas, apartment-style buildings and cooperative housing. Different needs, both economically and socially, shape the design of these housing types. With the influence of the Industrial Revolution, social housing not only met the need for shelter, but also became an important structure that shaped the social fabric and ensured social balance.

For instance, Back-to-Back Houses are the earliest examples of working-class housing in the industrial towns of central England and northern England were built by the owners of factories (Abdel & Harrouk, 2021). The main purpose of these housing units was to provide minimum space and at the lowest possible cost, which was often the case for factory owners. These structures, consisting of rows of houses side by side, were usually 2 or 3 floors and extremely small, with an area of less than 15 square meters (Figure 26, 27). While the ground floor was generally used as a kitchen and toilet, there were two bedrooms on the first floor.

While some of them may have additional spaces such as attics or backyards, they did not have enough windows. Because more than one family lived in one residence, they were overcrowded and unsanitary conditions occurred due to inadequate ventilation. Since toilets and water resources were shared, it was inevitable for diseases to spread in these unhygienic houses. In 1909, the government was unable to ignore this situation and banned the construction of such housing. Also, most of the remaining ones were destroyed (Abdel & Harrouk, 2021).

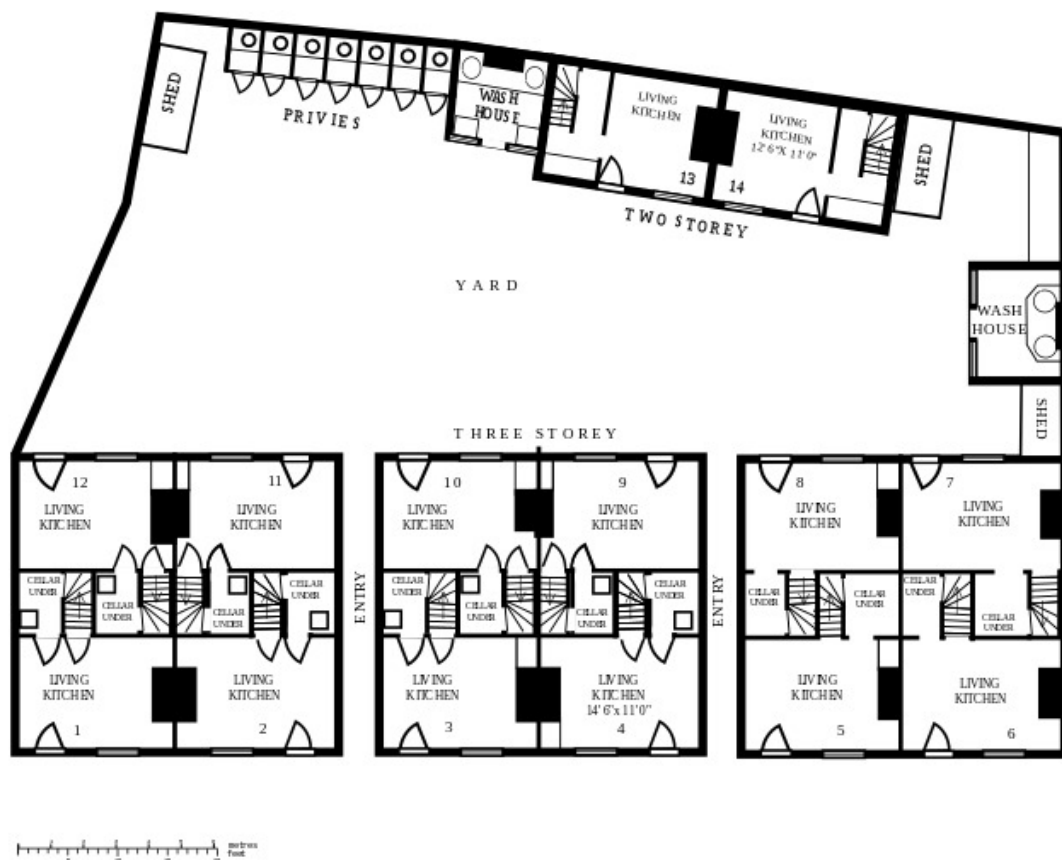


Figure 26. Typical plan of back-to back house (Abdel & Harrouk, 2021).

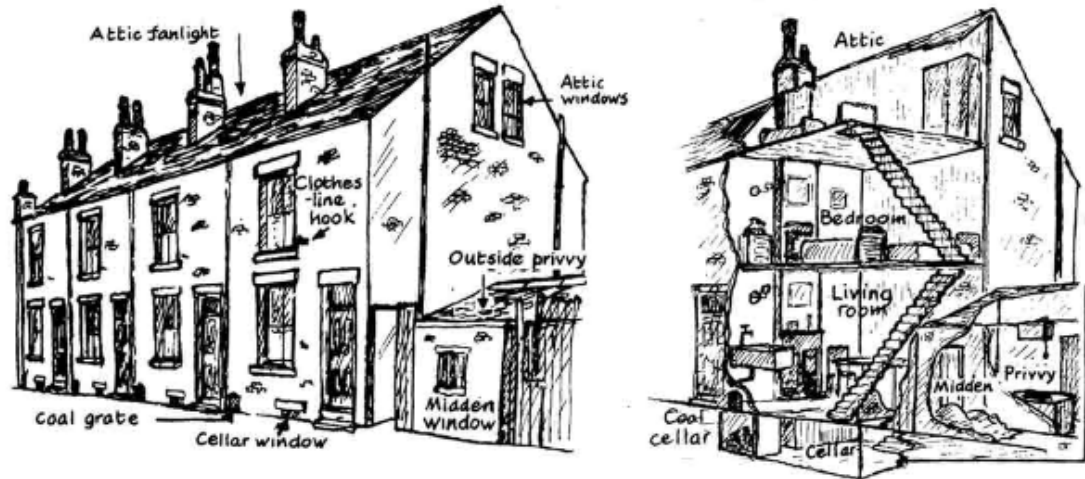


Figure 27. Typical perspectives of back-to back house (Patowary, 2017).

As an another example for social housing, Byelaw Terraces Houses were developed to provide housing due to the increasing population rate in cities during the Industrial Revolution. These types of houses are often designed as affordable housing solutions for the working class. The term “Byelaw Terraces Houses” is a term used to describe residences from a particular period in England (Figure 28). The term “byelaw” refers to legal regulations imposed or adopted by a particular local government. These regulations often include local construction standards and building codes.



Figure 28. Typical plan and façade of Byelaw Terraces House (Abdel & Harrouk, 2021).

Byelaw Terraces Houses generally bear characteristic features of typical English architecture. These are generally two or three storeys, narrow and long buildings (Figure 29). They are usually constructed from durable materials such as brick or stone. The exterior of these houses is generally simple and functional. Symmetrical arrangements can often be found on the front facades. Each house has its own entrance gate and front garden or courtyard. Some Byelaw Terrace Houses have what is called a “front garden” arrangement, with a front yard separated by a small fence or wall. Interiors are generally designed to be practical and functional. Because structures are typically narrow, interiors often have a simple and orderly arrangement. Each house usually has one- or two-bedroom floors and one or two bathrooms.

Historically, some Byelaw Terraces Houses may have had a traditional “fireplace” or hearth, while modernized versions often have central heating systems. Today, many Byelaw Terraces Houses have been restored and adapted to modern living standards and are still used as residences (Abdel & Harrouk, 2021).



Figure 29. Typical An example of 19th century byelaw housing in Cambridge (Abdel & Harrouk, 2021).

In urban planning, the centralization and concentration of industrial activities mark a significant change. Industrial facilities, factories and warehouses are generally located in the peripheral areas of cities, away from city centers. This situation has led to the structural reorganization of the city fabric and the functional transformation of city centers. The Industrial Revolution's effects on urban design also led to the reshaping of residential areas and population distribution. Increasing job opportunities and the centralization of industrial activities have encouraged migration from rural areas to cities. This situation increased the demand for housing in cities and required the creation of housing areas suitable for the expanding population.

Developments in transportation systems, along with an increase in industrial activity and trade expansion, have made significant contributions to the physical growth and integration of cities. The spread of means of transportation such as railways, steamships and later automobiles facilitated intercity and intracity transportation and strengthened the connection between cities. Protecting green areas and creating parks constitute another important dimension of urban design. During the Industrial Revolution, cities prioritized green areas and parks to enhance living conditions and safeguard public health. This has improved the quality of urban life and contributed to cities becoming more aesthetically attractive.

Lodz, one of the oldest cities in Poland, was a small town in the early 19th century, but after the industrial revolution, it became a metropolitan city due to the increase in number of factories and a large number of immigrants. The textile industry's development influenced the city's urban planning (Figure 30). An approximately five-fold increase in the city's population over time marked its rapid development. The decision to grant the city the status of a manufacturing city and establish a large-scale industrial center here was the catalyst for this rapid development (Grabowski, 2019).

The attraction of influential and impressive business people such as Karol Scheibler to the city also affected the development. Scheibler's cotton mill's location near the city's main street influenced its urban design. In the 1850s, Scheibler's complex architectural complex began production with a spinning mill equipped with a modern steam engine. Scheibler purchased a large tract of land in the 1860s and began constructing new factory buildings. The majority of the population of 20 thousand people worked in Scheibler's factory (Figure 31). Scheibler's industrial

estate spanned 168 hectares and is still an important landmark of Lodz's architecture today (Heim-Sowinska, 2012).

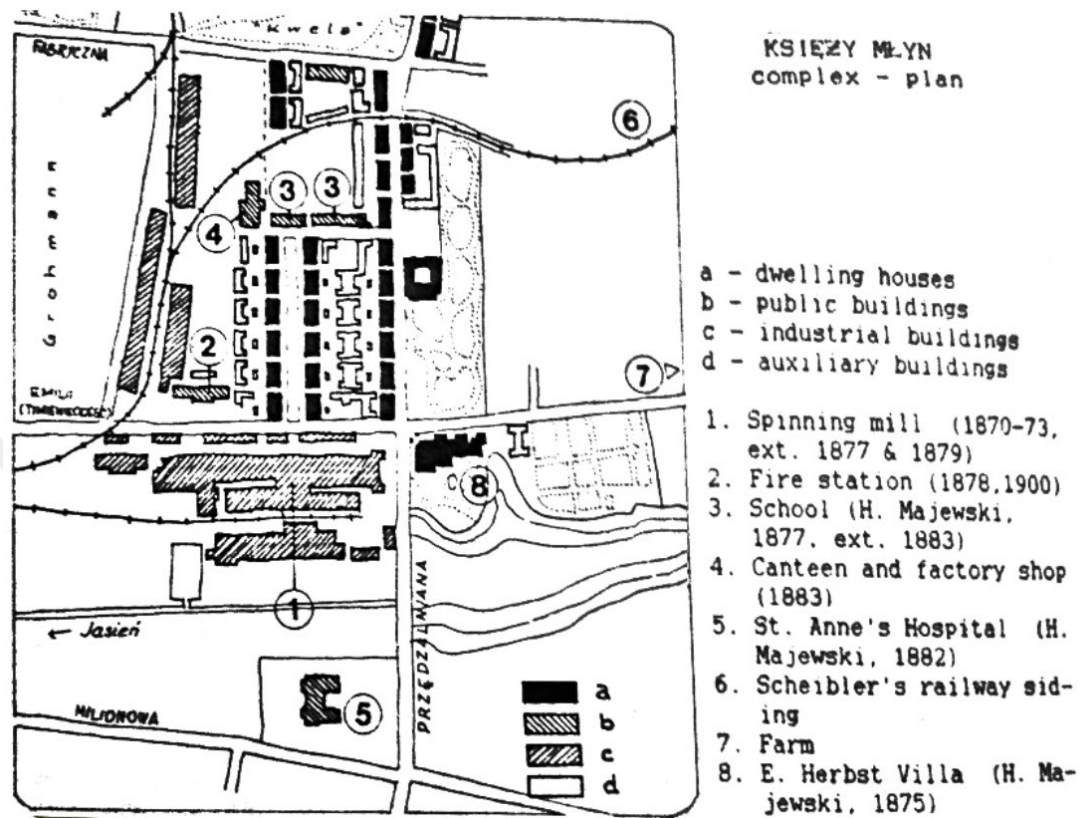


Figure 30. Site plan of Księży Młyn Complex, (Grabowski, 2019).



Figure 31. Księży Młyn Complex, Working class housing estate, (Grabowski, 2019).

The development of residential buildings during the Industrial Revolution marked a significant change in the field of urban planning and architecture. As the rapid industrialization process transformed cities, the need for effective housing became vital. This period saw the emergence of new building materials and construction techniques, as well as the rise of densely populated, high-rise apartment buildings. While these structures provided shelter for the growing urban population, they also increased problems of crowding, hygiene and social inequality. However, the Industrial Revolution also led to innovations in urban design and housing reform movements, laying the foundation for today's urban planning approaches and the recognition of housing as a fundamental human right (Grabowski, 2019). Therefore, the evolution of residential buildings in this period sheds light on both the past and the future in terms of the challenges and opportunities faced in urban development (Figure 32).

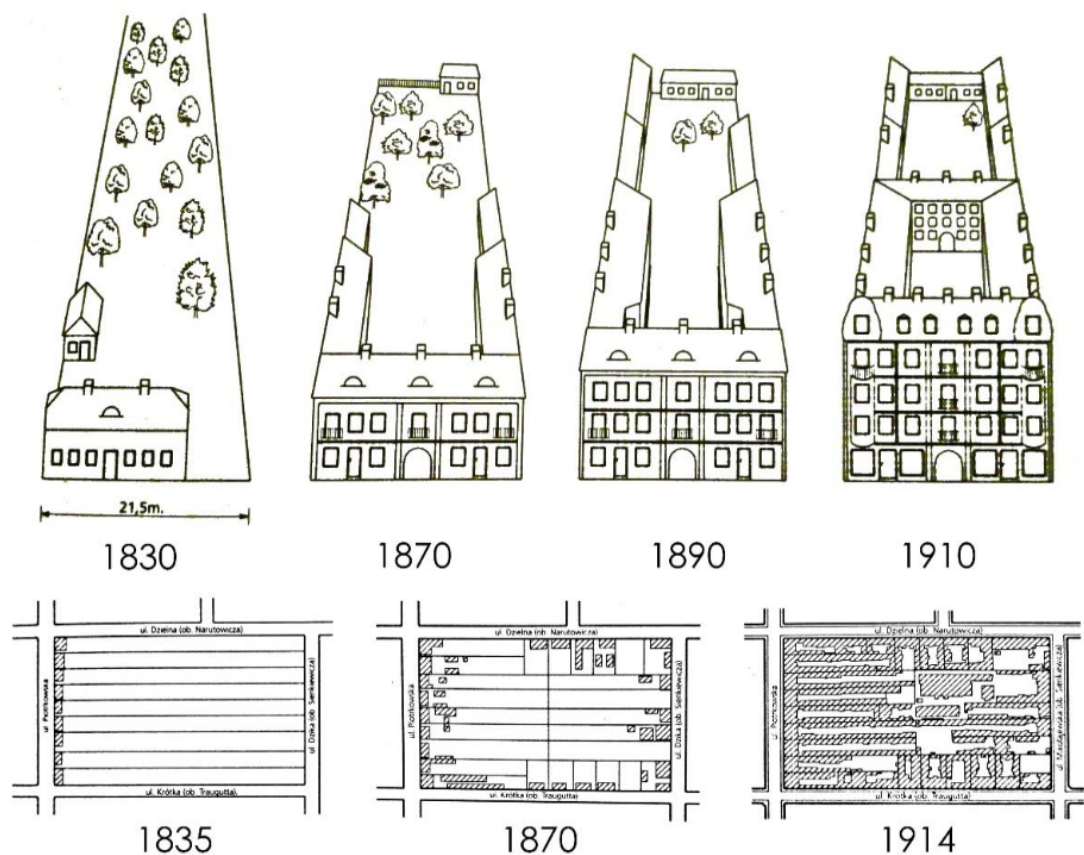


Figure 32. Schematic representation of development on the residential buildings in urban planning (Grabowski, 2019)

For centuries, housing has been a fundamental human need, prompting the development of various solutions throughout history. The housing crisis has grown more serious with the global urbanization that followed industrialization in the last few centuries. As cities experienced fast urbanization due to industrialization, there was not enough housing available to meet the expanding immigrant population's housing needs. Housing, which was previously considered a basic need, has gradually begun to be utilized as a tool for investing and as a determinant of economic development. Since industrialization, there have been inequalities in people's income distribution in many countries around the world. These differences have had a considerable impact on how the migrant population acquires housing, and people have come up with a variety of housing-related solutions. In this process, the social group that experienced the most housing problems in the form of housing was the lower-income group. Housing production models for the lower-income group have been produced all throughout the world, especially since the 20th century. The search for solutions to the housing crisis has accelerated as the norms of the right to housing have come into focus over time (Grabowski, 2019).

The construction of housing projects like workers' and social housing has attempted to address the housing-based accessible housing issue that emerged following the industrialization process. The "Convention on Economic, Social and Cultural Rights," signed in 1966, has been one of the substantial agreements defining the right to housing on an international level. This issue has also gained attention in international law (Grabowski, 2019).

CESCR plays an important role internationally in protecting and promoting economic, social and cultural rights. In this context, issues such as social housing and the working class are one of the main areas of focus for the CESCR. Social housing is directly linked to the CESCR right to "adequate housing" and aims to ensure that people have access to suitable, safe and healthy housing. CESCR tries to ensure that these rights are effectively implemented by reviewing countries' social housing policies. On the other hand, CESCR also covers the rights of the working class. Issues such as fair working conditions for the working class, union freedoms and worker health and safety are some of the economic and social rights protected by CESCR. In this context, CESCR encourages countries to take the necessary steps to protect and promote the rights of the working class. As a result, CESCR provides an important

framework for the protection and promotion of human rights, addressing issues such as social housing and working-class rights (Grabowski, 2019).

The advancement of technology, industry, and urbanization that have come along with it have dramatically decreased the number of people who are engaged in agriculture. Agriculture, which was already in decline, began to run on small farms, but not in the classic peasant way, but rather in a modernized way, under the control of machines on large lands. Agriculture gradually took on its present form with the development of new machines, technologies and fertilizers during the industrial revolution. In the 1960s, as a result of this revolution, the Back-to-the-Land movement got started against urbanization and new industrial culture. The philosophy of living a self-sufficient life in harmony with nature forms the foundation of this social movement. It is a kind of revolt against the social phenomenon that is stuck in daily life within the framework of societal norms, consumerism, materialism and ethical stereotypes. This movement gained popularity not only in the 1960s but also in various periods of history. For instance, although it started in Europe in the 1960s, this movement spread to various countries under the influence of famine, war, social reforms and similar factors.

The people of the movement adopt it because it is a self-sufficient way of life in line with their own moral values. Additionally, this movement aims to help people live more naturally by encouraging them to do more than just grow their own food. This depends on the person's preferences. These decisions include how much food you will grow, the type of energy you will use, and whether you will build your house yourself or not. The goal of this movement is to reduce consumption that is dependent on foreign sources of supply, which is not possible in today's world. Anti-consumerism and simplicity are the guiding principles of the Back to the Land Movement. People today are members of movements that share the same beliefs.

The relationship between the "back to land" movement and the industrial revolution is somewhat ironic, since the industrial revolution encouraged a large-scale migration of people from rural areas to cities. The industrial revolution, together with factors such as the mechanization of agriculture and the development of production processes in factories, increased the demand for urban areas with the increase in job opportunities in cities. However, problems brought about by modern industrial life,

such as stress, pollution and overuse of natural resources, may drive some people back to rural life. For this reason, the “back to land” movement may have emerged as a reaction to the negative effects of urban life brought about by the industrial revolution. People tend to move back to rural areas where they can access natural resources more sustainably and embrace a quieter lifestyle. This can be seen as an alternative lifestyle to the modern lifestyle created by the industrial revolution.

2.4.3 The emergence and spread of co-housing. Co-housing is a housing model where a group of people come together and share common areas and living spaces. The physical structure of co-housing consists of multiple independent houses interspersed with community spaces and resources, facilitating living while preserving an appropriate balance between individual privacy and communal collaboration (Beck, 2019). These common areas may include kitchens, living rooms, and gardens. Communities established by people who are in solidarity with each other and choose to live together generally form co-housing. This model offers an independent living space that can preserve personal privacy and also provides the opportunity to enjoy the advantages of community living. The co-housing model is based on values such as living together and solidarity. Such communities often adopt a democratic approach to decision-making processes and promote solidarity among community members. Co-housing provides an environment where community members can help each other, share resources, and engage in social interaction (Beck, 2019).

The co-housing model, in its modern sense, emerged in Denmark in the 1960s (Beck, 2019). During this period, a group of families came together to create a common living space and raise their children together. This initiative was undertaken with the aim of sharing the care of children, reducing costs and experiencing the social benefits that come with living together. After first emerging in Denmark in the 1960s, the co-housing model gained wider popularity in Europe and North America in the 1970s. The first co-housing communities were generally established in European countries such as Denmark, Sweden, the Netherlands and Germany. Later, the benefits and advantages of this model spread to other regions. Beginning in the 1980s, many co-housing communities were established in North America, particularly in the United States and Canada (Beck, 2019). These communities were often formed by bringing together people with various lifestyles and social values.

2.5 New Small-Scale Housing Concepts in 21st Century

In the 21st century, small-scale housing concepts have undergone a significant transformation due to rapid urbanization, environmental sustainability, and economic factors. The rapid population growth and rising housing costs in major cities have driven people to seek smaller and more economical living spaces. During this period, housing solutions that offer minimal living spaces and meet the needs of modern life have been developed. These new housing concepts have provided both economic and practical solutions, creating alternatives to the challenges of modern city life.

Designed to maximize functionality and comfort in small spaces, these houses promote eco-friendly and sustainable lifestyles. Furthermore, these houses provide ideal solutions for individuals living alone, young professionals, and students, catering to the changing needs of modern life. These innovative housing concepts, shapes the future housing understanding and promotes more sustainable and community-oriented living styles.

2.5.1 Micro apartments. Micro apartments are small living units typically ranging from 20 to 30 square meters. These types of apartments have gained popularity due to the high housing costs and limited space in major cities. Despite their small size, micro apartments are designed to provide functionality and comfort. One of the most prominent features of micro apartments is their compact design. These units are designed to offer maximum functionality in a limited space. Typically, the bedroom, living room, and kitchen are combined into a single room. To make efficient use of the space, multifunctional furniture is commonly used; for example, a bed might also serve as a seating area or a desk (Fisher-Gewirtzman, 2017).

In micro apartment complexes, shared common areas play a significant role. These areas are designed for residents to socialize and meet their needs. Shared kitchens, laundry facilities, lounges, and sometimes gyms are commonly used by micro apartment residents. These apartments are often located close to city centers, providing residents with easy access to workplaces, social amenities, and public transportation. For instance, Carmel Place in New York City is one of the first micro apartment complexes in the United States (Figure 33, 34).



Figure 33. Carmel Place as first micro apartment in New York (Kolson Hurley & Volner, 2017).



Figure 34. Prefabricated units of Carmel Place (Kolson Hurley & Volner, 2017).

Apartments at Carmel Place range from 24 to 34 square meters (Figure 35). These units are equipped with innovative design solutions such as foldable beds, multifunctional furniture, and hidden storage spaces. The complex also features shared amenities like laundry facilities, lounges, and even a gym (Figure 36) (Kolson Hurley & Volner, 2017).



Figure 35. Plan of units with different range of square metres of the Carmel Place (Kolson Hurley & Volner, 2017).

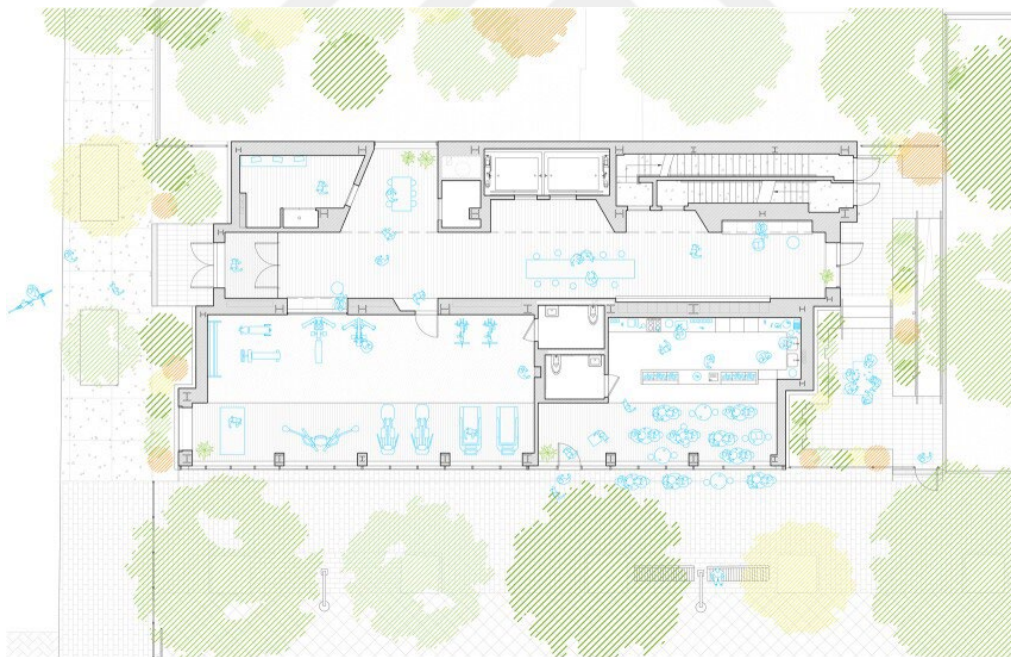


Figure 36. Plan of shared amenities of the Carmel Place (Kolson Hurley & Volner, 2017).

Micro apartments are ideal housing options for single individuals, young professionals, and students. Single individuals may prefer the compact and economical solutions offered by micro apartments. Young professionals looking for affordable housing close to their workplaces find micro apartments an excellent choice. Students can also benefit from the cost-effective and centrally located micro apartments while studying in large cities.

Micro apartments can be used for both permanent residence and temporary accommodation. They provide long-term housing solutions for those who prefer city living and are content with small living spaces. Additionally, they offer a practical accommodation option for business trips, internships, or short-term projects.

Advantages include lower rental and purchase costs, proximity to city centers and social amenities, and efficient use of small spaces with low maintenance costs. However, there are also disadvantages. Limited space may be insufficient for those accustomed to larger living areas, shared common areas can pose privacy issues for some individuals, and small living spaces offer limited storage options.

For example, capsule hotels in Tokyo share a similar concept to micro apartments. These hotels feature capsules, each approximately 2-3 square meters in size, designed for sleeping (Figure 37). The capsules are designed to offer maximum comfort with minimal space, and common areas like shared bathrooms and lounges are also available (Šenk, 2017).



Figure 37. °C (Do-C) Ebisu capsule hotel in Tokyo (Castro, 2017).

Micro apartments provide an economical and practical housing solution that meets the needs of modern urban living, making them increasingly popular in densely populated cities. These units are also ideal for those who embrace a minimalist lifestyle and seek sustainable living options.

2.5.2 Prefabricated houses. Prefabricated houses, commonly known as prefab houses, are residential buildings that are manufactured off-site in advance, usually in standard sections that can be easily shipped and assembled (Apaydin, 2011). This construction method contrasts with traditional on-site building, offering several advantages such as reduced construction time, lower costs, and minimized environmental impact.

One of the key features of prefab houses is their modular construction. The houses are built in sections or modules in a factory setting, where the environment can be closely controlled. This process ensures consistent quality and allows for the use of specialized tools and techniques that might not be practical on a traditional construction site. The modules are then transported to the final location and assembled into a complete house.

Another significant advantage of prefab houses is their speed of construction. Since much of the work is done in a factory, the on-site construction time is significantly reduced. This can be particularly beneficial in areas with short building seasons or for projects with tight timelines (Davies, 2005). For instance, a prefab house might be assembled and made ready for occupancy in just a few weeks, compared to several months for a traditional house.

Prefab houses are also known for their cost-effectiveness. The factory production process can lower costs through bulk purchasing of materials and more efficient use of labor. Additionally, the controlled environment reduces waste and can lead to significant savings in materials and labor costs. This makes prefab houses an attractive option for budget-conscious buyers and developers.

Sustainability is another important aspect of prefab houses. The efficient use of materials and reduced waste during the manufacturing process contribute to a lower environmental footprint. Many prefab house manufacturers also use eco-friendly materials and incorporate energy-efficient features, such as improved insulation and

energy-efficient windows, further enhancing the sustainability of these houses (Wang, Wang, Long, & Deng, 2016).

Prefab houses come in various styles and sizes, ranging from small, single-family houses to larger, multi-family buildings. They can be customized to meet the specific needs and preferences of the buyer, offering flexibility in design and layout. This customization can include choices in floor plans, finishes, and fixtures, allowing homeowners to create a personalized living space (Davies, 2005).

In conclusion, prefab houses are a modern, efficient, and sustainable solution to residential construction. They offer numerous benefits, including reduced construction time, cost savings, and environmental advantages, making them an increasingly popular choice in today's housing market.

2.5.3 Modular houses. Modular houses are a type of prefabricated housing that is built in sections, or modules, in a factory setting and then transported to the construction site where they are assembled into a complete house. This construction method provides numerous advantages, including enhanced quality control, reduced construction time, and often lower costs compared to traditional on-site building methods (Tavares, Lacerda, & Freire, 2019).

One of the primary features of modular houses is the modular construction process. Each module is built to exact specifications in a factory-controlled environment, which ensures consistent quality and allows for the use of specialized tools and techniques. These modules are then transported to the house site and assembled on a pre-prepared foundation. The assembly process can be completed quickly, often in just a few weeks, resulting in a fully functional house.

Quality control is a significant benefit of modular house construction. Building in a factory setting means that each module is constructed under strict supervision and with precise measurements, reducing the likelihood of human error. This controlled environment also protects the building materials from weather-related issues, such as moisture and temperature variations, which can affect the quality of traditionally built houses.

Speed of construction is another major advantage of modular houses. Since the modules are built simultaneously in the factory while site preparation is underway, the overall construction timeline is significantly shorter. Once the modules arrive on-site,

they can be quickly assembled, and the finishing touches can be applied. This efficiency makes modular houses an attractive option for those needing a new house quickly or for developers with tight project timelines.

Cost-effectiveness is a key factor in the appeal of modular houses. The factory construction process allows for bulk purchasing of materials, efficient use of labor, and minimized waste, all of which contribute to cost savings. Additionally, the faster construction timeline reduces labor costs and financing expenses, making modular houses a more affordable option for many buyers.

Modular houses also offer a high degree of customization. Buyers can choose from a variety of floor plans, designs, and finishes to create a house that meets their specific needs and preferences. This flexibility allows for a personalized living space that can range from simple, functional layouts to more elaborate designs with high-end features.

Sustainability is another important aspect of modular houses. The controlled factory environment and efficient use of materials result in less waste compared to traditional construction methods. Many modular house manufacturers also incorporate eco-friendly materials and energy-efficient features, such as improved insulation, energy-efficient windows, and solar panels, which reduce the environmental impact and lower utility costs for homeowners.

An example of a modular house is the KODA by Kudasema, an Estonian company that offers modular houses that can be easily relocated and reassembled (Figure 38, 39). KODA houses are designed to be energy-efficient, with features like solar panels and high-performance insulation, making them an excellent choice for sustainable living (King, 2016).



Figure 38. KODA modular house by Kudasema Architects (Kiemet, 2016).

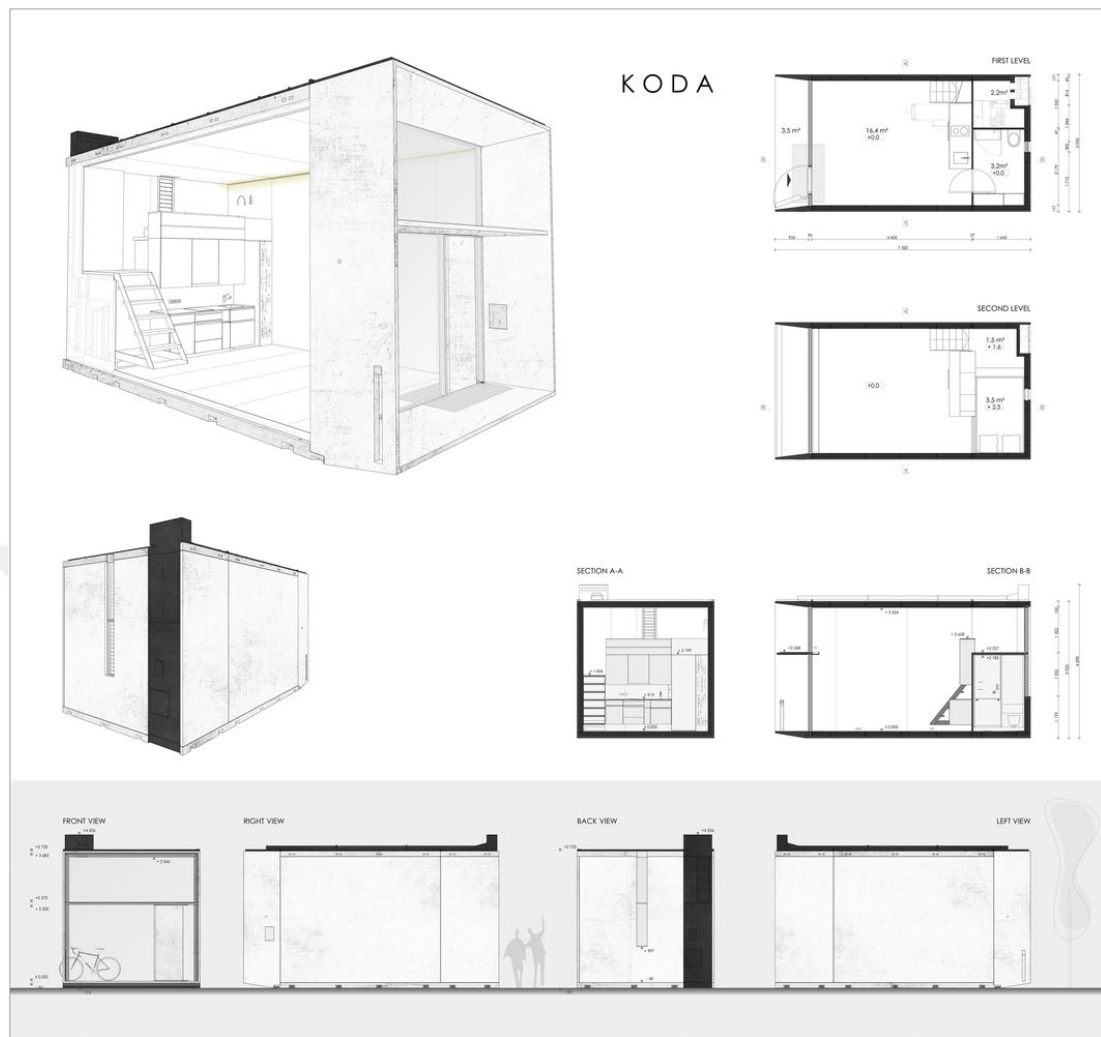


Figure 39. Plan, section, elevation and perspective drawings of KODA modular house (Kiemet, 2016).

In conclusion, modular houses provide a modern, efficient, and customizable solution to residential construction. With advantages such as enhanced quality control, faster construction times, cost savings, and sustainability, modular houses are becoming an increasingly popular choice for house buyers and developers looking for innovative housing options.

2.5.4 Eco-friendly small houses. Eco-friendly small houses are compact living spaces designed with sustainability in mind. These houses aim to minimize their environmental impact through the use of renewable resources, energy-efficient technologies, and sustainable building practices. They typically feature innovative designs that optimize space and functionality while promoting a green lifestyle.

One of the defining characteristics of eco-friendly small houses is their energy efficiency. These houses are built to reduce energy consumption through various means such as improved insulation, energy-efficient windows, and the use of renewable energy sources like solar panels and wind turbines. By minimizing energy use, these houses not only reduce their carbon footprint but also lower utility costs for homeowners (Jain, 2013).

Sustainable materials are another key component of eco-friendly small houses. These houses often use materials that are renewable, recycled, or have a low environmental impact. Examples include bamboo flooring, reclaimed wood, recycled steel, and non-toxic paints and finishes. The use of such materials helps to conserve natural resources and reduce waste.

Water conservation is also a crucial aspect of eco-friendly small houses. These houses often incorporate features like low-flow fixtures, rainwater harvesting systems, and greywater recycling systems to reduce water usage. By managing water resources efficiently, these houses help to preserve this vital resource and reduce the burden on local water supplies.

Smart design plays a significant role in the functionality and sustainability of eco-friendly small houses. These houses are typically designed to make the most of limited space, with multifunctional furniture and clever storage solutions. Additionally, they often feature passive solar design elements, such as large south-facing windows and thermal mass materials that absorb and store heat, to naturally regulate indoor temperatures.

An example of an eco-friendly small house is the Ecocapsule, a compact, self-sustainable micro-house developed in Slovakia (Cardno, 2020). The Ecocapsule is equipped with solar panels, a wind turbine, and a rainwater collection system, making it capable of operating off-grid. Its design maximizes space efficiency and minimizes energy consumption, providing a comfortable living environment with a minimal environmental footprint (Figure 40, 41).



Figure 40. Eco-friendly small house Ecocapsule (Chudik, 2021).



Figure 41. Inside of one of the Ecocapsule (Chudik, 2021).

In summary, eco-friendly small houses offer a sustainable alternative to traditional housing by incorporating energy-efficient technologies, sustainable materials, and smart design principles. These houses are ideal for individuals who want to reduce their environmental impact, lower their utility costs, and embrace a minimalist lifestyle. As awareness of environmental issues grows, eco-friendly small houses are becoming an increasingly popular choice for those seeking to live sustainably.

2.5.5 Shipping container houses. Shipping container houses are residential buildings constructed using repurposed steel shipping containers. These houses are part of a growing trend in sustainable and affordable housing, utilizing the robust structure of containers to create innovative and efficient living spaces. Shipping container houses can be single-container units or multi-container structures, offering a wide range of design possibilities and sizes (Islam, Zhang, Setunge, & Bhuiyan, 2016).

One of the primary advantages of shipping container houses is their durability. Shipping containers are designed to withstand harsh conditions at sea, making them extremely strong and resistant to weather and wear. This durability makes them an excellent building material, capable of withstanding extreme weather conditions and providing a long-lasting housing solution.

Cost-effectiveness is another significant benefit. Used shipping containers are relatively inexpensive and widely available, making them an affordable option for house construction. The modular nature of containers also simplifies the building process, reducing labor costs and construction time (Jamaludin, Ilham, Wan, Halim-Lim, & Hussein, 2021). This affordability makes shipping container houses an attractive option for budget-conscious individuals and developers.

Sustainability is a key feature of shipping container houses. By repurposing used containers, these houses reduce the demand for traditional building materials and help recycle steel that might otherwise go to waste. Additionally, many shipping container houses incorporate eco-friendly features such as solar panels, rainwater harvesting systems, and energy-efficient appliances, further reducing their environmental impact.

The modularity of shipping containers allows for a high degree of design flexibility. Containers can be stacked and arranged in various configurations to create unique and customized living spaces. This flexibility enables the construction of anything from simple, single-container houses to complex multi-container residences with multiple rooms and levels. The modular design also makes it easy to expand or modify the house in the future (Jamaludin, Ilham, Wan, Halim-Lim, & Hussein, 2021).

Speed of construction is another advantage. Shipping container houses can be built much faster than traditional houses because the basic structure is already in place. Once the design is finalized, modifications such as insulation, plumbing, and electrical systems can be added quickly (Islam, Zhang, Setunge, & Bhuiyan, 2016).

The container modules can then be transported to the site and assembled, significantly reducing the overall construction timeline.

The Manifesto House is a striking example of a shipping container house that combines innovative design with sustainability (Figure 42, 43). Located in the picturesque surroundings of Curacaví, Chile, this home utilizes repurposed shipping containers and a variety of eco-friendly materials and technologies to create a modern, comfortable, and environmentally conscious living space (Derringer, 2010).



Figure 42. The Manifesto shipping container house (Derringer, 2010).

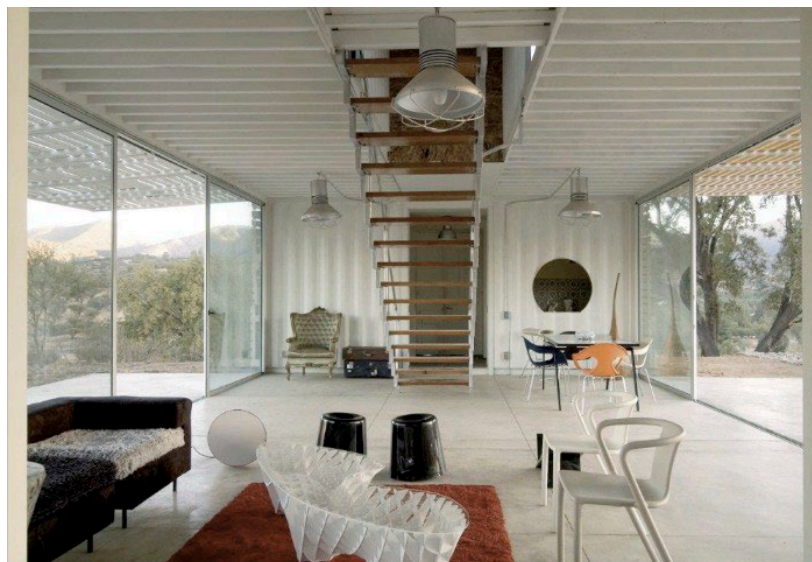


Figure 43. Inside of the Manifesto shipping container house (Derringer, 2010).

In conclusion, shipping container houses offer a durable, cost-effective, and sustainable alternative to traditional housing. Their modular nature allows for flexible and innovative designs, while their robust construction ensures long-lasting and resilient living spaces. As awareness of environmental issues and the demand for affordable housing grows, shipping container houses are becoming an increasingly popular choice for those seeking modern, eco-friendly living solutions.

2.5.6 Mobile houses. Mobile houses, also known as manufactured houses, are residential structures that are built in a factory and then transported to a specific location where they will be used as permanent living spaces. These houses are designed to be mobile, meaning they can be moved from one place to another, although they are typically installed on a semi-permanent or permanent foundation at the destination site. Mobile houses offer several advantages, including affordability, flexibility, and quick construction, making them an appealing housing option for many people.

Mobile houses are constructed entirely in a controlled factory environment, which allows for better quality control and efficiency. They are built on a permanent chassis with wheels, which facilitates transportation to the final site. Once at the location, they can be anchored to a foundation for stability. Mobile houses come in various sizes and designs, ranging from single-section units to multi-section units, offering similar amenities to traditional site-built houses.

One of the most significant advantages of mobile houses is their cost-effectiveness. The factory production process reduces construction costs through economies of scale, lower labor costs, and bulk purchasing of materials. As a result, mobile houses are generally less expensive to purchase and maintain compared to traditional houses. This affordability makes them a popular choice for first-time housebuyers, retirees, and those looking for economical living options.

Mobile houses provide a high level of flexibility due to their ability to be relocated. This mobility is particularly appealing to individuals who may need to move frequently for work or personal reasons. While moving a mobile house requires professional assistance and can be complex, the option to relocate can be a significant advantage for those who value flexibility and do not want to be tied to a single location.

The construction of mobile houses is significantly faster than that of traditional houses. Building in a factory setting is not affected by weather conditions and other on-site delays, allowing for rapid production. Once constructed, the mobile house is transported to the site and installed, ready for occupancy in a much shorter timeframe than conventional houses.

Modern mobile houses offer a wide range of customization options. Buyers can select from various floor plans, finishes, and features to create a house that meets their specific needs and preferences. These options can include energy-efficient appliances, high-quality insulation, and modern design elements, making mobile houses as comfortable and attractive as traditional houses.

Many mobile house manufacturers emphasize sustainability by using eco-friendly materials and energy-efficient designs. The factory construction process generates less waste compared to traditional building methods. Additionally, mobile houses can be equipped with green technologies such as solar panels, rainwater harvesting systems, and energy-efficient windows to further reduce their environmental impact.

An example of a popular mobile house manufacturer is Clayton Houses, which offers a wide variety of mobile and manufactured houses with modern amenities and customizable features. Clayton Houses focuses on providing affordable, quality housing with a range of designs and floor plans.

Another manufacturer is Airstream, which produces iconic silver trailers used as both mobile houses and recreational vehicles. Airstream trailers are renowned for their durability, aerodynamic design, and stylish interiors, making them a popular choice for those seeking a mobile lifestyle.

Despite their many advantages, mobile houses also face some challenges. Financing can be more difficult to obtain compared to traditional houses, as mobile houses are often classified as personal property rather than real estate. Zoning laws and regulations can restrict where mobile houses can be placed, and there is sometimes a stigma associated with mobile houses as lower-quality housing.

In conclusion, mobile houses provide an affordable, flexible, and efficient housing option that caters to various lifestyles and needs. With modern designs, customization options, and a focus on sustainability, mobile houses are an increasingly popular choice for those seeking practical and cost-effective living solutions.

2.5.7 Tiny house movement. The Tiny House Movement is a social and architectural trend that advocates for downsizing living spaces, simplifying lifestyles, and promoting sustainable living. Tiny houses are typically defined as residential structures that are under 400 square feet, designed to maximize functionality and efficiency while minimizing the environmental footprint. This movement has gained significant popularity over the past few decades, driven by a desire for financial freedom, environmental consciousness, and a minimalist lifestyle.

One of the core principles of the Tiny House Movement is minimalism. The movement emphasizes living with less, which means reducing possessions to only those items that are necessary and meaningful. This approach helps to declutter both physical and mental space. The limited space in a tiny house naturally encourages this minimalist lifestyle, making it easier for individuals to focus on what truly matters to them.

Another fundamental aspect of the Tiny House Movement is sustainability. Tiny houses are often designed with eco-friendly features to reduce their environmental impact. They typically use fewer materials and resources during construction and have lower energy needs for heating, cooling, and maintenance. Many tiny homes incorporate renewable energy sources like solar panels, as well as water-saving technologies such as composting toilets and rainwater harvesting systems.

Financial freedom is a significant draw for many who embrace the Tiny House Movement. Tiny houses are generally much cheaper to build and maintain than traditional homes, allowing owners to avoid large mortgages and reduce ongoing living expenses. This financial flexibility enables individuals to allocate their resources to other pursuits, such as travel, hobbies, or saving for the future. By living in a tiny house, people can achieve a simpler, debt-free lifestyle.

The mobility of tiny houses is another appealing feature. Many tiny homes are built on trailers, making them mobile and allowing owners to move easily from one location to another. This mobility suits those who prefer a nomadic lifestyle or want the flexibility to relocate without the hassle of selling a traditional home. The ability to move a tiny house provides a unique sense of freedom and adventure.

The Tiny House Movement also fosters a strong sense of community and lifestyle. Many tiny house owners are part of communities where they share resources,

support each other, and engage in sustainable living practices. This communal lifestyle encourages social interaction and collaboration, contrasting with the isolation that can sometimes accompany traditional suburban living. Tiny house communities often organize events, workshops, and social gatherings that strengthen the bonds between residents.

Design and construction play crucial roles in making tiny houses functional and comfortable. These homes are ingeniously designed to maximize every square inch of space. Common design elements include lofted sleeping areas to save floor space, multifunctional furniture that serves multiple purposes, and smart storage solutions that utilize vertical space and built-in cabinets. Open floor plans help create a sense of spaciousness despite the small footprint.

Despite its many benefits, the Tiny House Movement faces several challenges. Zoning laws and building codes in many areas do not accommodate tiny houses, especially those on wheels, making it difficult to find a legal place to park and live. Additionally, living in a tiny house requires significant downsizing and can be challenging for families or individuals used to larger living spaces. Financing can also be a hurdle, as traditional home loans are often not available for tiny houses, particularly mobile ones.

In conclusion, the Tiny House Movement represents a shift towards more sustainable, affordable, and minimalist living. It offers an alternative to the conventional housing market, appealing to those who seek financial freedom, environmental responsibility, and a simpler lifestyle. As the movement grows, it continues to inspire innovative designs and foster communities focused on sustainable living practices.

Chapter 3

Less House More Home: Tiny House Movement

Humans have contended with natural conditions to survive since the beginning of time, and they have satisfied their sheltering needs in natural rock caverns and subsequently in temporary, movable constructions, which are the first human-made shelters and the first examples of mobile housing. They were manufacturing things that could meet their basic shelter needs with the instinct of protection. When the very first houses in history are examined, it is observed that they fit the basic definition of mobile housing.

Tiny houses have been proposed as a solution for a range of housing concerns in a variety of locations due to their small size, relatively low cost of construction and maintenance, and mobility. Tiny houses are as diverse in terms of their environments and the users they can serve as they are in terms of their aesthetics. It is important to differentiate between the tiny house movement and tiny houses, the typology.

Tiny houses are designed in a way that is compatible with the minimalist life philosophy. The main reasons why people tend to live in tiny houses may be different however the common idea is that everyone is to shelter in small square meters due to functional interior designs.

3.1 Understanding the Concept of the Tiny House Movement

The Tiny House Movement is combination of architectural and social movement that encourages reducing the size of living spaces and choosing a simpler lifestyle with fewer belongings. Although this movement mostly symbolized a shift towards a more basic lifestyle, it was also seen as a possible eco-friendly alternative to the current housing sector and a practical way for people without shelter to transition into stable living conditions. These living spaces present a significant opportunity for individuals seeking to minimize their ecological impact by adopting a more minimalist lifestyle and lowering resource consumption. Factors such as rising housing and land costs, financial challenges, a desire to get back in touch with nature, the 2020 coronavirus

pandemic, earthquakes, and a desire for a quiet way of life all contributed to the growing demand for tiny houses.

3.1.1 Historical roots and pioneering of tiny house movement. The Tiny House Movement's development has led to significant alterations in people's lifestyles. Nevertheless, these changes extend beyond the beginning of the current time; this movement has already been influenced by numerous individuals' commitment to minimalism, sustainability and simple living principles. Within this particular context, the study of literature, particularly at a period of increased interest in lifestyles that align with nature and the environment as well as the growing popularity of minimalism, there exist literary works that embody the fundamental ideals of the tiny house movement. Hence, the emergence of the tiny house trend should be viewed not only as initiating a new trend but also as reflecting existing lifestyle preferences.

3.1.1.1 Henry David Thoreau, *Walden*, 1854. Henry David Thoreau, an American writer and natural philosopher, was a prominent figure in the Transcendentalist movement of the 19th century. Thoreau promoted deeply connecting with nature and accepting a minimalist lifestyle. In 1845, he willingly chose to reside in isolation for two years in a house close to Lake Walden in Concord, Massachusetts. He documented this particular experience in his "Walden" literary work in 1854 (Figure 44). Through this attempt, Thoreau highlighted the profound connection with the natural world and the significance of a minimalist existence (Walden, 1845).

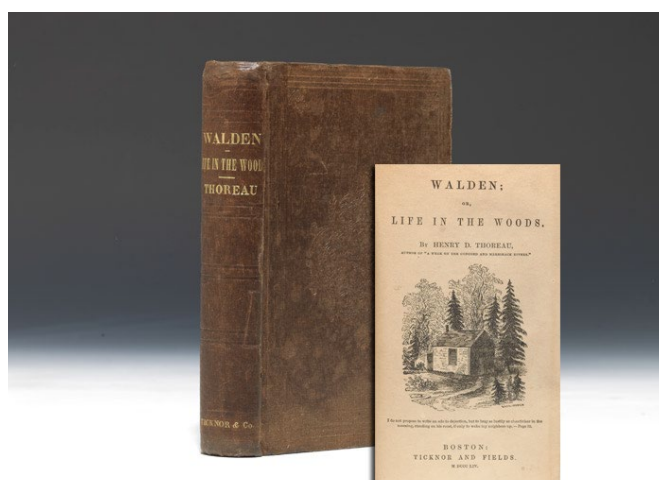


Figure 44. Henry David Thoreau, *Walden*, (Walden, 1845).

Thoreau's relationship with the Tiny House movement connects to his experience, documented in *Walden*. Thoreau's house came to represent a lifestyle characterized by minimalism and simplicity. Thoreau resided in a modest house, trying to separate himself from consumerist society, coexist with nature in a state of equilibrium, and prioritize his personal growth. This method aligns with the basic concepts of the contemporary tiny house movement, advocating for a lifestyle characterized by reduced size, simplicity, and sustainability (Thoreau, 2006).

Thoreau's *Walden* is not just a literary work, but a significant influence on the modern tiny house movement. It not only encourages a less materialistic lifestyle and a deeper connection with nature, but also serves as a spiritual guide, directing readers to explore their inner worlds. This multifaceted impact of Thoreau's work is a testament to its importance in inspiring the principles of the contemporary tiny house movement.

3.1.1.2 Allan Wexler, *Crate House*, 1990. Allan Wexler has worked in architecture and design, and has signed many projects related to the tiny house concept (Fehr, 2001). His projects allow users to debate the idea of space and examine it from different points of view. For instance, The “Crate House” project was designed and carried out by Allan Wexler in 1990 (Figure 45, 46).



Figure 45. Allan Wexler, Crate House, 1990 (Wexler, 2017).

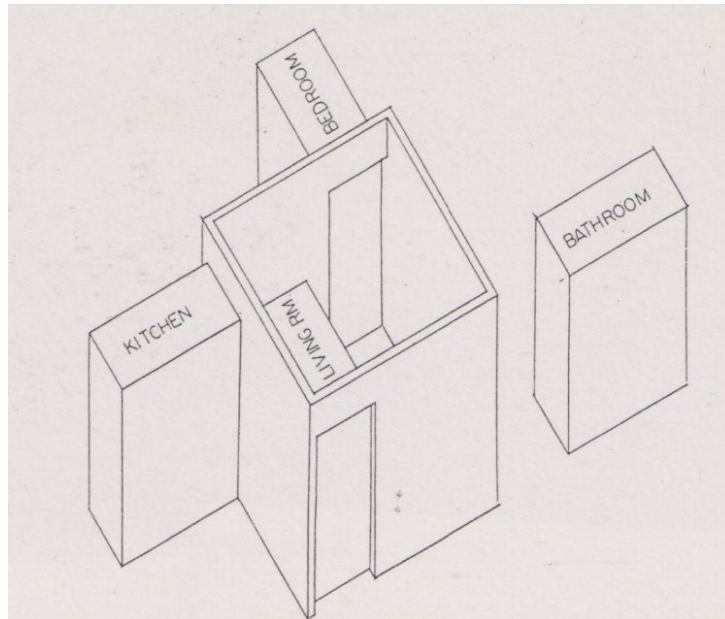


Figure 46. Isometric perspective diagram of modules (Wexler, 2017).

The term “Crate House” is derived from the word “crate,” which refers to the safe or enclosed box upon which the house was built. Project consisted of a modular structure that used standard wooden casing modules (Figure 47). The walls, ceiling, and floor of the house are constructed by combining these secure components. The modular design facilitates easy change of the house’s form and dimensions. Users have the ability to create and personalize their houses according to their preferences.

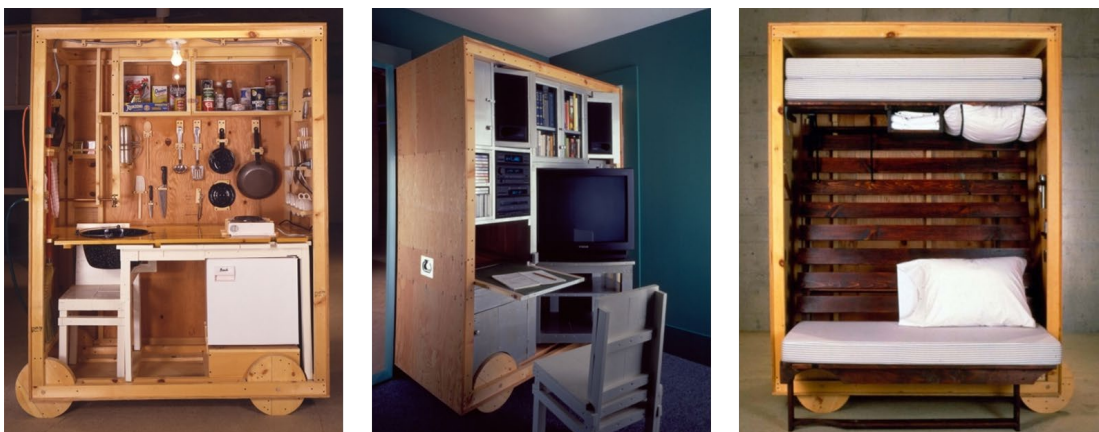


Figure 47. Wooden casing modules as kitchen, working space, bedroom (Fehr, 2001).

3.1.1.3 John Elkington, Triple Bottom Line, 1994. The term “triple bottom line” has been used to determine the sustainability performance of an enterprise or organization (Alhaddi, 2015). It was first introduced by John Elkington. Slaper (2011) defined the Triple Bottom Line (TBL) as an accounting concept that integrates three distinct aspects of performance: social, environmental, and financial. This departs from regular reporting frameworks as it includes environmental and social indicators that may create challenges in determining suitable quantification methods. Slaper (2011) also indicated the TBL dimensions are commonly called the three P’s: people, planet, and profits (Figure 48).

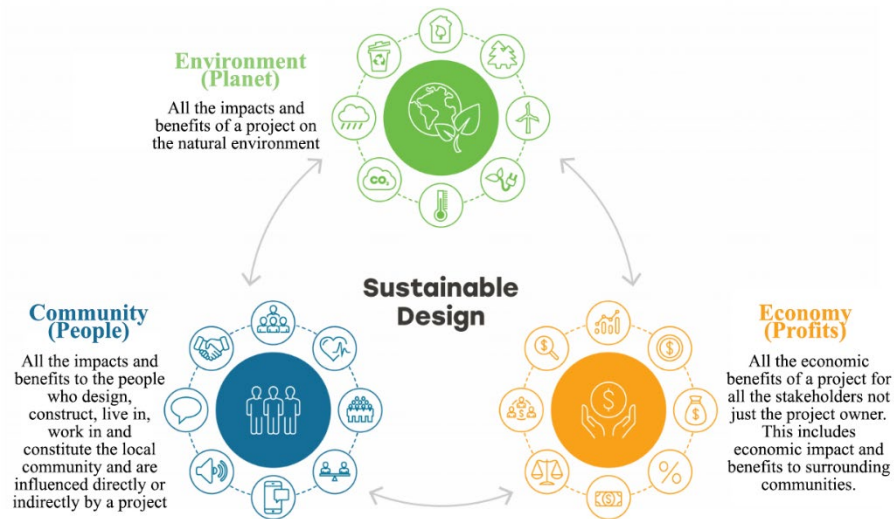


Figure 48. Triple Bottom Line (TBL) sustainable design diagram.

The Tiny House Movement is a phenomenon related to the increasing popularity of houses with tiny and simplified living spaces. Typically, these types of houses are significantly smaller compared to traditional houses, having less space and consuming fewer resources. This movement is embraced by those who accept a minimalist lifestyle, preferring to minimize their consumption patterns and adopt an environmentally conscious way of life.

The link between the Tiny House movement and the triple bottom line comes from the movement’s advocacy for a lifestyle that emphasizes sustainability. Tiny houses usually consume less energy and resources, produce less waste, and minimize their impact on the environment. The tiny house movement advocates for a lifestyle

that is environmentally, economically, and socially balanced, with a focus on sustainability. This is a concrete example of the acceptance of the triple bottom line principle, as tiny houses can offer economic, environmental, and social benefits. By adopting a minimalist lifestyle, people can minimize their personal belongings to only what they need for life. This not only serves to decrease the adverse effects on the environment but also enhances affordability by lowering the amount of space required (Slaper, 2011).

3.1.1.4 Sarah Susanka, *The Not So Big House*, 1998. Traditionally, larger houses have enjoyed higher esteem, however, smaller, intelligently-designed houses have recently gained attraction. A crucial aspect of this transformation is the tiny house movement, which promotes people to simplify, maintain, and downsize their living spaces. Publication of “The Not So Big House” by Sarah Susanka in 1998 is significant in driving this transformation (Figure 49). The book has a strong connection with the tiny house movement since it advocates for the construction of smaller yet more functional, organized, and personalized houses. Susanka has advocated for homeowners to create more significant and satisfying living environments while utilizing less amount of space (Susanka, 1998).

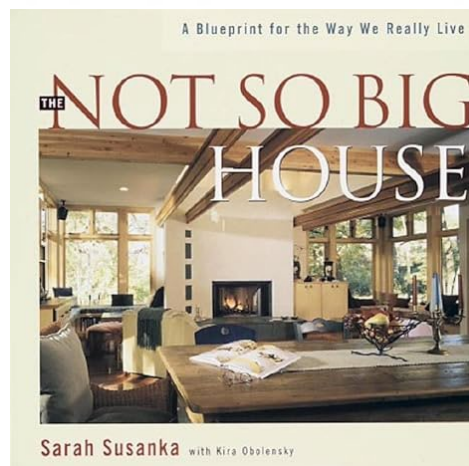


Figure 49. Sarah Susanka, *The Not So Big House*, (Susanka, 1998).

The book argues that although houses may have reduced dimensions, they can nevertheless include sufficient individuality, comfort, and functionality. Thus, the book confirms and elaborates on the ideals and principles of the tiny house movement. The book does not focus into specific details of the tiny house movement but rather includes ideas and design principles that align with the core concepts of the movement.

3.1.1.5 Jay Shafer, Tumbleweed Tiny House Company, 1999. The Tiny House movement is seen as a phenomenon that has garnered significant popularity and advocates for a minimalist way of life (URL-7). Jay Shafer was one of the people who contributed greatly to the start of this movement. Tumbleweed Tiny House Company established by him in 1999, specializes in the construction of mobile tiny houses. From that time to the present, he has built tiny houses with wheels (Figure 50,51). Shafer argues that tiny houses can change not only their physical size but also their lifestyle.



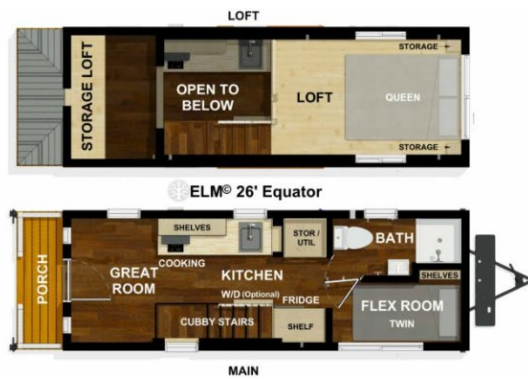
Figure 50. Original ELM® - RV Rustic Tiny House, 1999 Model (URL-7).



Figure 51. ELM® - RV Rustic Tiny House, 2024 Model (URL-7).

Shafer's designed and constructed housing embodies a minimalist aesthetic, a streamlined lifestyle, and eco-conscious principles. In general, these houses are movable and constructed using materials that have been recycled or can be renewed (Figure 52,53,54). Shafer highlighted how small houses can change people's lifestyles, and noted that living in a smaller house can promote a less stressful lifestyle with less ownership and consumption (URL-7).

ELM® 26' Equator



Length	8m
Sleeps	1 + 2 in loft
Width	2.6m
Height	4.2m

Figure 52. ELM® 26' Equator Model – RV Rustic Tiny House (URL-7).

ELM® 30' Pacific



Length	9m
Sleeps	1 + 2 in loft
Width	2.6m
Height	4.2m

Figure 53. ELM® 30' Pacific Model – RV Rustic Tiny House (URL-7).

ELM® 33' Alta



Length	10m
Sleeps	1 + 2 in loft
Width	3.8m
Height	4.3m

Figure 54. ELM® 33' Alta Model – RV Rustic Tiny House (URL-7).

Shafer presented his ideas to numerous communities through the publication of his books and the delivery of conferences. He also shared his views on various media platforms that contributed to the popularization of tiny houses. Shafer's narrative is seen as an iconic representation of the minimalist lifestyle associated with tiny houses (URL-7).

3.1.2 Emergence of tiny house movement. The Tiny House Movement is a social movement that promotes limited spaces for living and advocates for a simplified lifestyle. This phenomenon frequently emerges due to fundamental causes such as financial challenges, environmental awareness, and a desire for liberty. Due to the rising housing expenses, individuals have started exploring more cost-effective and environmentally friendly living spaces. Owners of tiny houses choose a more minimalist lifestyle, with fewer possessions, while constructing tiny houses typically employs eco-friendly materials. This phenomenon has become increasingly popular in numerous places worldwide and has received support from various sustainable living communities.

America can be considered as the tiny house movement's origin. The Tiny House movement developed significant popularity in the United States, particularly due to rising housing expenses during periods of global economic crisis (Trambley, 2020). In addition, factors such as minimalism and environmental concern influenced the rise of this movement. Tiny house communities in the United States encouraged the movement by coordinating house construction workshops and promoting information exchange (Mangold & Zschau, 2019). Financial crises similar to the subprime mortgage crisis experienced in the USA in 2006 have been experienced frequently in the past. The 2008 financial crisis in USA is distinct from earlier financial crises due to globalization. Initially, it was called the global financial crisis because it originated from the financial sector and first affected that sector, and later on, the word finance was removed from the framework as it expanded to all industries and it began to be called the global crisis. Since it indicates that the crisis is one that spreads geographically throughout the entire world and that it also reflects an economic prevalence that includes both the financial sector and the other sectors, the definition of global crisis has gained acceptance on a worldwide scale.

The whole mortgage sector was impacted by the credit crisis, which began with subprime mortgage credits and spread to other credit types. The increasing housing costs created asymmetric market data that misled credit consumers and led to the notion that buying a house was an investment strategy. However, the US government wanted to provide low-income families and minorities with social housing (Mangold & Zschau, 2019). Low-income groups have developed the expectation that they will earn a profit from the purchase and selling of housing as a result of the US Government's strong support however, due to the decline in market balances and the challenges associated with supplying collateral, the value of the houses supplied as security for the credits issued dropped.

Former President Bush signed the American Dream Down payment Initiative Fund Code in 2003, which supported overcoming the difficulties associated with house monthly payments in order to realize the dreams of the American people to be homeowners (Trambley, 2020). This fund's goal is to help low-income families with housing buys and payments. Consumers decide to invest in a house, assuming that the advantageous interest rates offered during the first term of the credit will remain constant. However, due to the variable interest rate credits, people could not make their repayments. People are allowed to take credits easily without a good analysis of their solvency in the coming months. That fact has been one of the main factors that triggered the mortgage crisis in the US financial markets. The term "crisis" prompted the start of studies on the management of the mortgage crisis, a review of all monetary and fiscal policies, an increase in audits, and the inclusion of the entire financial system in the self-evaluation process. As a result of the economic crisis, thousands of people who were unable to make their credit payments lost their houses and had to start searching for new housing (Mangold & Zschau, 2019). Some of these people have chosen tiny houses as an alternative to the typical big American houses. Consequently, this has become a social movement that promotes the idea of living in houses with less cost and less harm to the environment (Trambley, 2020). Under the title of the tiny house movement, the concept started to become widespread due to the fact that Americans sought alternative housing after the global economic crisis in 2008. Later on, it developed into a sector in western countries as well.

3.1.3 Sense of community life for tiny house owners. The Tiny House Movement is not just about living in a downsized house; it is also about building strong communities and meaningful relationships. This movement and lifestyle focus on a growing and encouraging community of people who all believe in living simply, sustainably, and purposefully. Gaining knowledge of the social dynamics within the tiny house movement can help individuals better understand the practical, emotional, and social aspects of an alternative lifestyle.

Tiny house community is defined by its strong emphasis on collaboration and the sharing of resources. Individual of tiny house communities frequently meet to participate in the sharing of ideas, promotion of knowledge, and provision of mutual assistance via virtual forums, social media groups, and in-person gatherings. These communities assist one another through the positive and negative aspects of tiny house life by providing inspiration, encouragement, and a sense of community.

Furthermore, sharing a small area with other tiny house dwellers encourages a sense of community and belonging. Many tiny house communities offer shared facilities and spaces for gathering where residents are able to meet for cooperative activities, gardening, and socializing. These communities' overall quality of life is improved by the members' shared sense of ownership and support for one another, which fosters an inclusive and supportive environment for all.

In addition, the tiny house movement encourages sustainability and responsibility for the environment, which are commonly reflected in neighborhood activities and initiatives. In order to reduce their ecological footprint and living in a natural world, tiny house communities implement various practices such as composting, rainwater harvesting, renewable energy systems, and permaculture gardening. The collective dedication to sustainability not only provides benefits for the environment but also develops togetherness among community individuals who are bound together by a shared goal.

Nevertheless, it is crucial to understand that communal existence within the tiny house movement is not without its challenges. Conflicts or tensions may arise within communities due to factors such as limited space, different lifestyles, and varied demands and preferences. The development of healthy and harmonious relationships

among community members requires the presence of effective communication, mutual respect, and a willingness to compromise.

In summary, comprehending the complicated dynamics of communal existence within the tiny house movement provides significant perspectives on the societal, affective, and pragmatic aspects of an alternative way of life. Tiny house communities provide a compelling framework for constructing sustainable, supportive, and enjoyable communities in an interconnected world by valuing collaboration, shared values, and a sense of belonging (Figure 55).

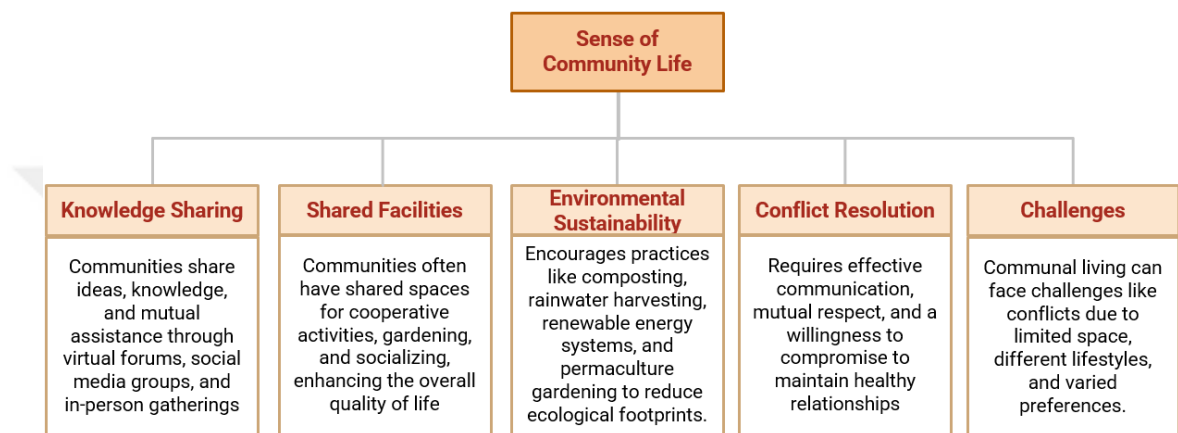


Figure 55. Table of sense of community

3.2 Examination of Tiny House Community Examples

3.2.1 Hope of Valley Tiny house community, Los Angeles, USA. Ken Craft, who is the founder and CEO of Hope of the Valley Rescue Mission, states that the streets should not be the waiting room for permanent housing. Vision of the mission is no one goes without hope, hot meals, housing, health service and healing. On the purpose of providing those to houseless people, he decided to build villages to reduce the houseless people ratio. In 2021, he opened 6 tiny house houses for homeless people in Los Angeles. Craft believes that people are trying to exit houselessness. They are trying to overcome the obstacles and barriers that are keeping them unhoused (Craft, 2021).

The Chandler Boulevard Bridge House Village is very first tiny house community in Los Angeles. It is designed by Lehrer Architects in Los Angeles. The main design aim of the designers was to create a humane and welcoming environment

for residents. Empty land transformed into a community for many houseless (Figure 56,57).



Figure 56. Site of the Chandler boulevard bridge house village before construction (Craft, 2021).



Figure 57. Site of the Chandler boulevard bridge house village after construction (Craft, 2021).

Tiny Houses should have been an innovative and affordable design. The units are prefabricated pallet shelters. Beside cost-efficiency and easy application, the idea behind the usage of pallet shelters was reflecting the hope of removing the houses from the site for future projects when houselessness is not an issue anymore. 39 units can be used for one or two people. Each tiny house is approximately 6m²(64 sqm) and each one have their own HVAC system. They consist of an aluminum frame and fiber-reinforced plastic composite walls. The tiny houses contain two beds, storage possibility under the beds, shelving, heater, air conditioner (Figure 58). There are also houses for disabled people who have to use wheelchairs. These types of houses only have one bed and have a blank space for wheelchairs to park (Figure 59).



Figure 58. Inside of the typical tiny house (Jason, 2022).



Figure 59. Tiny house for disabled individuals (Jason, 2022).

The architects aimed to design functional spaces in a community area (Craft, 2021). They had to do this with low-cost design solutions and materials. They provide a sense of community and personal boundaries with color (Figure 60). Also, architects arranged tiny houses to create efficient common and private areas. Bathroom needs are met in hygiene vehicles divided into private cabins (Jason, 2022). Hygiene trailer which contains shower area, toilets and sinks, five of each. It is also considered that the houseless will not want to leave their pets so there is a dog-run area in the site. It is intentional that the houses do not contain bathrooms. Because it was wanted to be given the caution that these houses are temporarily allocated to people until they can get themselves together. People should prepare for a more permanent option.



Figure 60. Color usage on I and floor design (Jason, 2022).

Architects have seen safety as one of the main decisions in design (Craft, 2021). Security guards make sure that there is no contraband coming inside such as drugs, alcohol, weapons. In addition, the fact that the doors are lockable is a detail that can make the houseless feel very safe. Tiny houses do not have a kitchen area. Since people are also provided with meals that they eat three meals a day. Thus, they do not have to undertake the financial obligation of cooking. Five washers and five dryers in the laundry facility area can be used by people living there to wash their clothes. Vibrant colors are selected in some tiny house units and floors to give a sense of life and energy.



Figure 61. Dog-run area (Jason, 2022).

An example of a project implemented with tiny house designs in Los Angeles has been examined as a solution design for houselessness. Since these people lived alone and unsecured on the streets, it was aimed that neighborly relations were strengthened in their new houses. As tiny house units, pallet shelters were preferred. Privacy, security, community, fast implementation and cost-effectiveness were the key factors of the design decisions. While everyone's own house ensures privacy, the close settlement of the houses improves neighborly relations and community (Figure 62).



Figure 62. Tiny houses after life begins (Jason, 2022).

The fact that bathrooms are not inside the houses has indeed been helpful both in reminding people that living here is temporary and in building the houses more cost-effectively. Plumping for each unit will increase the cost of the tiny house. A minimum of living space has been allocated to meet the needs of people. The vibrant colors used on the facades and floors of the houses are a thoughtful design idea that can calm the impact of the difficult times that people have lived in the streets. Even with those difficulties, the fact that their companion animals are also considered in this new habitat will enable people to adapt here more easily. In addition to the people living here, these houses will be psychologically good for their relatives who are not with them for various reasons. Many houses like this can be built on vacant lots. Observing that people start to reflect on their lives where the afterlife begins is an indication that this effort has reached the right result.

3.2.2 Lake Dallas Tiny house community, Texas, USA. Lake Dallas is a little town that is located in Texas, USA (Figure 63). The first community of tiny houses on wheels built using Appendix Q and the international residential code is located in Lake Dallas (Stephens, 2022). The owner and developer of the Lake Dallas Tiny House Community, Terry Lantrop, wanted to live in the tiny house (Lantrop, Lake Dallas Tiny Home Village Tour by Indigo River Tiny HomesLake Dallas Tiny Home Village Tour by Indigo River Tiny Homes, 2021). As a result of his research, he determined that many individuals desired to live with a tendency to downsize, and he intended to implement this as a social housing solution. As a result, he built Lake Dallas Tiny House Community on an acre of a farm. He kept and renovated the interior as a common area for residents because he wanted to preserve the original texture of the land (Figure 64).



Figure 63. Lake Dallas Tiny House Community, (Lantrop, 2022)



Figure 64. Entrance of Lake Dallas Tiny House Community, 2022 (Stephens, 2022).

During his research about designing a tiny house community, Lantrop met with several people who have tiny houses. The majority of them preferred that all cars be parked outside the property to create a more community atmosphere. While Lantrop locates parking lots on the north and east sides, he puts tiny houses in the center of the site (Lantrop, Lake Dallas Tiny Home Village Tour by Indigo River Tiny HomesLake Dallas Tiny Home Village Tour by Indigo River Tiny Homes, 2021).

When the granddaughter of the previous owner of the land was selling the land to Lantrop, he requested not to demolish the historic farmhouse, which was built around 1910, and to preserve the trees as much as possible (Figure 65). Lantrop agreed to this request and renovated the farm so that it could be used as a community area (Figure 66).



Figure 65. Renovated farmhouse (Lantrop, 2022).



Figure 66. Preserved trees (Lantrop, 2022).

When the land was used as a farm, the current courtyard was used as a fire lane, so the material of the floor was slab concrete. However, Lantrop did not prefer it to be a slab of concrete. The reason for this is that residents will see this area when they pass by it and will have access to it to get their tiny houses in and out. Instead of a concrete slab, grasscrete was used, which is thick concrete with small cells filled with dirt and

then planted with grass (Figure 67). When people pass through the street, they see a grassy courtyard area and tiny houses on both sides (Lantrop, Lake Dallas Tiny Home Village Tour by Indigo River Tiny HomesLake Dallas Tiny Home Village Tour by Indigo River Tiny Homes, 2021).



Figure 67. Grasscrete (Lantrop, 2022).

Due to its structural stability, self-draining nature and provide safe emergency access, grasscrete is already a widely used material in green landscape designs (Figure 68) . In addition to making the courtyard look better, this material selection made sure that fire trucks could get to the houses if they were needed. Also, grasscrete acts as drainage for catching a lot of water instead of diverting it down the street and it can be used to irrigate the trees around (Mahajan, 2019).

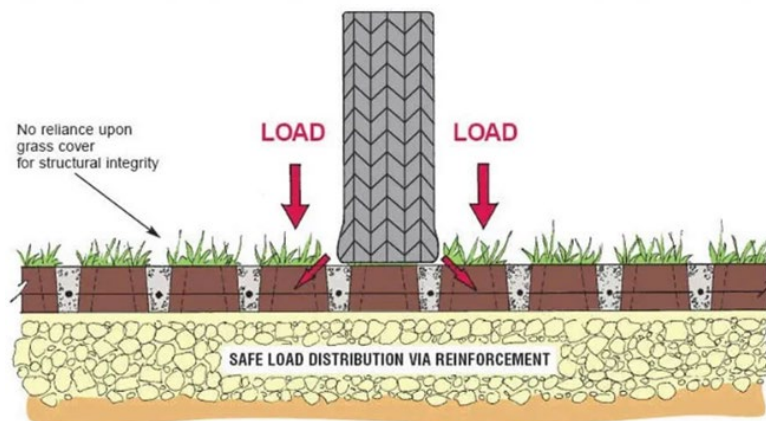


Figure 68. Section of the relationship between grasscrete and the vehicle tire (Mahajan, 2019).

Each lot measures 75m² to 85m². This net area is roughly equivalent to a large 1+1 or average 2+1 flat area. Some homeowners have their houses designed by professional manufacturers, while others build and decorate them entirely themselves. The 13 tiny houses in the village are all unique and reflect the personalities of their owners (Lantrop, 2022). Depending on the preferences of the residents, a wide variety

of housing designs, including single-story, mezzanine, balcony, or private terrace can be seen in the community (Figure 69).



Figure 69. Some tiny houses in the community (Lantrop, 2022).

In addition to the net area of tiny houses', some residents have a veranda that can be used as a terrace or with a picnic table to create a private outspace (Figure 70).



Figure 70. Tiny houses with veranda (Lantrop, 2022).

The interior design of each of the houses completely reflects the owners of the houses without being similar to each other. Still, similar materials and storage solutions are to be found in the interior (Figure 71).



Figure 71. Tiny houses interiors (Lantrop, 2022).

Aside from the interior of the houses, people have small sheds that they use as storage units outside their tiny houses. These additional storage spaces are immensely useful for those who are downsizing gradually, who need to keep seasonal items or large objects that cannot fit at house (Figure 72). The noticeable fact about these sheds is that they do have to resemble the tiny house of the owner (Lantrop, 2022).



Figure 72. Storage units for tiny houses (Lantrop, 2022).

In 2022, rents are paid between 600 and 650 dollars for the lots. These rents include water sewer, trash services, usage of the washeteria, electricity and internet (Lantrop, 2022) (Figure 73,74).



Figure 73. Trash Service (Lantrop, 2022).



Figure 74. Separate electricity and WIFI (Lantrop, 2022).

Lake Dallas Tiny House Community has all kinds of people and families, such as single people, married couples, people with children and retired people. The community has taken pride in having close neighbors, which sets it apart from other tiny house communities. Even though everyone in this community is different and has their own lives, relationships between neighbors have gotten a lot better because of a number of things. It provides a wide range of social gathering opportunities. In addition to the activities, families with children interacting and playing with one another brought them closer together. The fire pit is one of the places where residents meet most frequently (Figure 75). The neighbors gathered here by communicating via messaging groups. Consequently, they share their experiences with each other in this community, where they live together. In this way, neighborly relations are also quite strong (Lantrop, 2022).



Figure 75. Fire pit in communal area (Lantrop, 2022).

The washeteria building, where people do their laundry, is intended to be a communal gathering place. This building can be used for a wide range of activities, such as business meetings or as a place for kids to play, especially when it's cold outside (Lantrop, 2022). There are pictures of the residents of this community on the wall, which was suggested by one of the residents who is a teacher (Figure 76). These photographs are quite useful in determining the profiles of individuals who live in the community when the owner gives tours to people who think they live there (Lantrop, 2022).

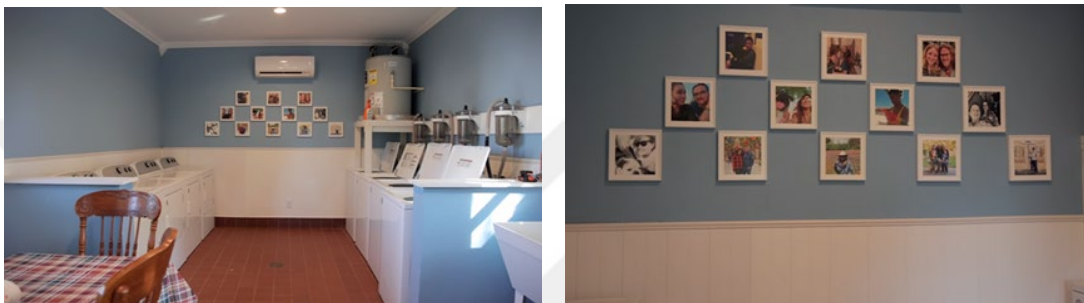


Figure 76. Interior of the washeteria and photographs of the residents (Lantrop, 2022).

Additionally, there is a community garden where residents can grow and harvest their own products (Figure 77).



Figure 77. Community garden (Lantrop, 2022).

Residents find it very inspirational to have diverse people in the community who have different skills (Stephens, 2022). They were all delighted to get to know people who helped out in the neighborhood where they lived, despite their predictions that they would lead more private lives. In the interviews conducted with them, they also shared a few examples to explain these relationships. For instance, when there

was no electricity in the winter, they shared their generators and candles, they did not hesitate to ask their neighbors for assistance when a device broke down, and they enjoyed watching their kids play together (Lantrop, 2022). In addition, since social connections are strong, introverted individuals are pleased to have become more extroverted and socially confident since moving to this community. There is also a picnic area for residents. Residents who work from home have preserved strong social relationships, particularly during the pandemic period and now (Figure 78).



Figure 78. Picnic area for communal usage (Lantrop, 2022).

When Lantrop first began to build a tiny house community, he was aware that the city needed rules and regulations, but the legislation governing these structures was unclear. After his search, a team of individuals who use the international code to produce Appendix Q was formed (Lantrop, Lake Dallas Tiny Home Village Tour by Indigo River Tiny Homes, Lake Dallas Tiny Home Village Tour by Indigo River Tiny Homes, 2021). It was for houses on foundations, but Lantrop wanted tiny houses on wheels in his community. The houses meet all requirements for using Appendix Q, with the exception of not having a foundation. Additionally, a national entity must certify the tiny houses. Their longest and widest measurements should have been appropriate. There will be no hesitation in living legally because these houses meet all the requirements of both the International Residential Code and Appendix Q (Stephens, 2022).

There is a waiting list on the website for people considering moving to the Lake Dallas Tiny House Community. People occasionally move the village since these houses are tiny houses on wheels. For those on the waiting list, the village offers tours

a few times a year. People get to experience the neighborhood they desire to reside in even though the houses can't be visited because they are private zones (Lantrop, 2022).

3.2.3 Tiny house community, Mehlmeisel, Germany. The German Tiny House Movement exhibits several similarities to its counterparts in different countries around the world. The motivation behind it stems from a desire for simplicity, sustainability, and economic independence. A significant number of individuals are drawn to the concept of reducing the size of their living spaces to decrease their environmental impact, decrease consumption, and live with greater purpose.

The more difficult issue than owning a tiny house in Germany is where to locate these houses. Most tiny houses do not comply with local building codes or simply do not fit into the local area. This tiny house community has emerged since it aims to eliminate this problem. Stefanie and Philip Sanders, the owners of the land, tackled the issue of parking spaces in 2016, and a year later they managed to find the first official and legal tiny house community (Sanders & Sanders, Tiny House Village-Mehlmeisel, 2022).

The couple founded the concept in Canada in 2015. They believe that, even though tiny houses might not be a stand-alone solution to the housing crisis in cities, they and the communities they create are a sustainable approach to making rural areas more appealing. They were able to achieve this goal and paved the way for several future projects with the support of the neighborhood, legislators, and the media. Tiny House Community Mehlmeisel is the first approved and legal residential area for tiny houses to be included in the development plan of Germany. The community was opened by Stefanie and Philip Sanders in 2017 on a former campsite in the Fichtel Mountains in Upper Franconia (Sanders & Sanders, Tiny House Village-Mehlmeisel, 2022).

Two years after it all began with a house and two residents, there were already more than 40 people living there and over 25 tiny houses. A successful tiny house hotel with three individual houses has also been running since it was founded. A total of 37 parking spots for houses with a maximum floor area of 50 square meters and a height of 4.50 m have been allowed for the tiny house village Mehlmeisel, which is situated in the Fichtel Mountains. The more than 16,000 square meter building has a third of private rented space (Sanders & Sanders, Tiny House Village-Mehlmeisel, 2022). The

remaining square meters are separated into public spaces, walking routes, and parking spots. There is a community house, a garage, and a barn on the site as well. Large trees create a natural barrier around the entire community (Figure 79).



Figure 79. Site plan of tiny house Community Mehlmeisel (Sanders & Sanders, Tiny House Village-Mehlmeisel, 2022).

Nordic Fjöll is the first tiny house on wheels project of Tiny House Village Mehlmeisel's owners (Figure 80). It was built in the country for the first time in 2016 and has since evolved based on user experiences. While they were planning their own tiny house in 2018, they altered their concept and built on solid foundations. This provided for better insulation and a wider interior (Sanders & Sanders, 2022). They also lowered the sleeping loft and brought a new idea to Germany. In their most recent projects, they made an effort to push the boundaries of design and functionality while also incorporating the need to create an age-appropriate tiny house on one floor (Figure 81). This type of house quickly became well known in Germany, and it was mass-produced by a company named Tiny House Diekmann for the community from 2019 to 2022.



Figure 80. Nordic Fjöll Tiny House (Sanders & Sanders, 2022)

A tiny house has a minimum weight of 3.5 tons, dimensions of 7.20 meters long by 2.55 meters wide by 4 meters high, and a net living area of 25.3m². In Germany, these houses are classified as “tiny houses on wheels,” and thus legally qualify as vehicles. In this way, they can be used even on highways, with a maximum speed of 80 m/s (Sanders & Sanders, 2022).

The exterior coverage material is painted gray to pigeon blue. Intensity has been added to the I by adding white wooden wicks to the facades horizontally where there are few windows. Plywood panels were used within the house due to their extreme lightness.

The living room is located at the entrance of the house. One of the interior components that draws attention immediately is the shelf partition, which has a variety of functions. It allows access to the working space on the mezzanine floor since it serves as a stair. With its double-sided shelves, it adds richness to the interior decoratively in the living room while providing additional storage areas on the kitchen side. Also, by separating the kitchen from the living room with a wall, the divider makes two separate spaces and gives the room a sense of size. Since the number of steps was reduced in order to save space in the venue, it was preferred that the riser height be higher than normal.

The legs of the wooden table on the mezzanine floor help people climb up from the high wall, making it easier and more comfortable to use. The wooden table can also serve as a work table.



Figure 81. Interior section of Nordic Fjöll House (Sanders & Sanders, 2022).

The living room sofa may be opened and used as a bed for guests. There are storage areas under the seat cushions. They are large enough to provide enough space to store seasonal clothes. A small, normal electric heater with 1000 watts is also located in the living room to heat the tiny house.

The wooden kitchen counter is left quite long for the tiny house. The shelf divider, which forms a border with the living room, can also be used as kitchen cabinet shelves. Drawers and cabinets allow the kitchen enough storage space. There is a small wooden counter where people can eat near the window across from the kitchen counter. To allow for comfortable mobility in the kitchen, this bench has been intentionally kept narrow. It is a place where two people can spend time together while looking out the window.

Although the 1.5m² bathroom is quite small, it is designed to meet all the necessary functions and be easy to move around in. It is highly functionally constructed to fit the stairs of the bedroom on a 1m² area without blocking the bathroom door from opening.

The stair leading to the bedroom were hidden with a useful design, reducing the density of the house and keeping the bedroom hidden. The stair can also be utilized as additional storage space. A 30-liter water tank is located in the space under a portion of the staircase. 30 liters of water is enough to take a shower for about 10 minutes. For this reason, it is necessary to be efficient in the use of water. The bedroom consists of king-size mattresses and wardrobes. There is a storage cabinet with four top-hinged doors and two bottom-hinged slides next to the bed. Wooden doors were used to retain the use of wooden materials on the lower floor and to allow natural ventilation inside the cabinets. The bedroom's windows are oriented to view Fichtelgebirge's city center. This model does not have a skylight over the bed; however, it is considering adding one to the design for future models. Watching the stars, especially on cloudless evenings, will add a different atmosphere to the house. Even though the room has a window, adding a skylight will provide better ventilation (Figure 82,83).

As it is known, a mattress is made of material that can be moistened immediately because of the human body temperature. For this reason, a slatted frame is placed under the mattress so that air flow comes down and the moisture can be removed from the mattress easily.

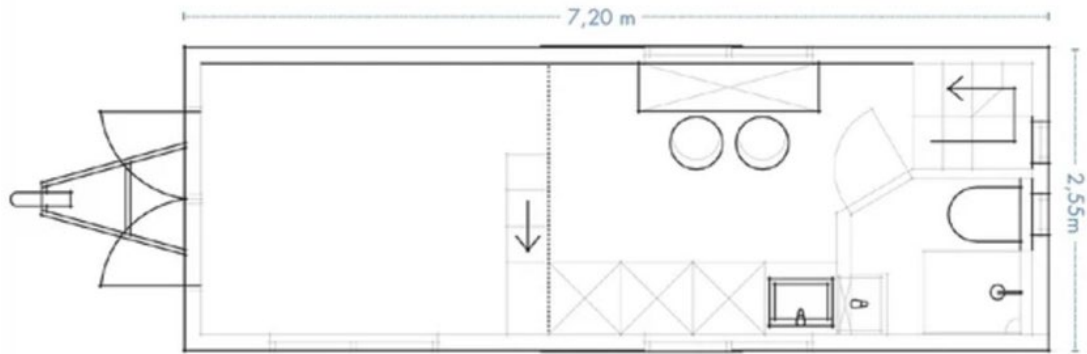


Figure 82. First floor plan of Nordic Fjöll House
(Sanders & Sanders, 2022).

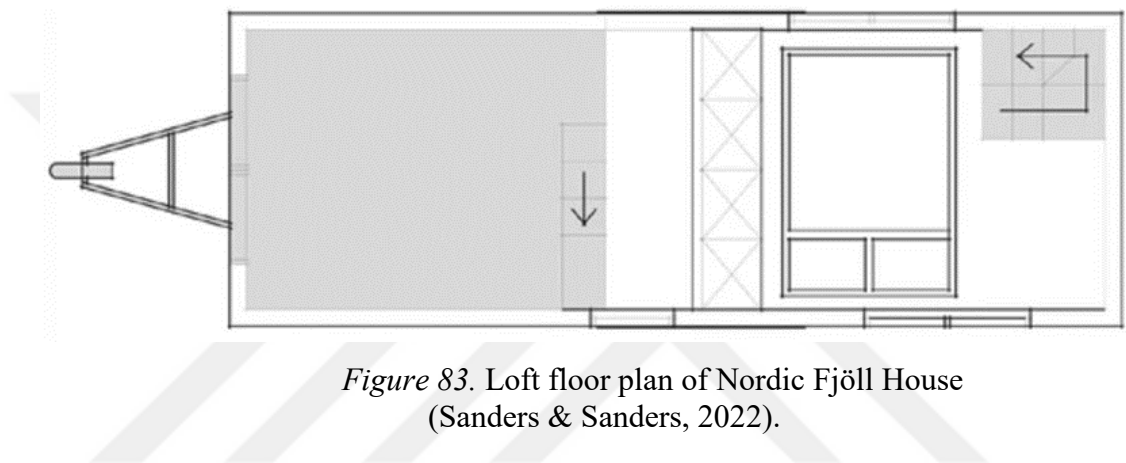


Figure 83. Loft floor plan of Nordic Fjöll House
(Sanders & Sanders, 2022).

3.2.4 Tiny house community, Hüttstadl, Germany. The second Tiny House Community in Hüttstadl comes after the first village in Mehlmeisel. The new town is considerably smaller than Mehlmeisel, with only five properties on 2000 square meters. A tiny space is provided for each resident's house. The remaining portion of the property is entirely shared. Hüttstadl is a district of Fichtelberg in the Fichtelgebirge. There is no through traffic since it is located at the end of a street. The land orients south-east and borders on a small piece of forest. Several hiking and cross-country skiing trails begin only a short distance away. Land is located near by the center of Fichtelberg. Only five minutes away, there are stores and medical facilities. The Tiny House Village Hüttstadl has a total of five approved tiny house parking spaces that comply with all building regulations, such as statics, fire protection certification and an energy certificate. The concept is completely collaborative. Along with sharing equipment, residents also share carports, a tool shed, a sauna, a hot tub, and possibly a communal house and an earth basement in the future. All investments are discussed and made together (Figure 84).



Figure 84. Site plan of tiny house Community Hüttstadl (Sanders & Sanders, 2022).

In spring of 2021, they founded a company together with their residents and from then on they designed the village in Mehlmeisel together. This company was established since it was thought that every resident should have the opportunity to take responsibility collectively and on equal terms. They still trying to find new lands for new tiny house communities (Sanders & Sanders, 2022).

The design of LOVT is the culmination and experiences of five years of building and living in tiny houses. At the summer of 2020, the first LOVT was constructed in Tiny House Village Mehlmeisel (Figure 85). The end result is a high-quality tiny houses that satisfies the high standards of permanent residence . Houses therefore require better functional space, more insulation, more durability, and more improved living environment. These houses started mass production in January 2022 by the manufacturer company called Tiny House Diekmann for community. From the summer of 2022, interested individuals will be able to experience the new LOVT tiny houses at two locations (Figure 86).



Figure 85. View of LOVT Tiny House (LOVT, 2022).

The dimensions of a LOVT houses are 9.5 meters long, 3.5 meters wide and 4 meters high. They are about 6.5 tons in weight and include a 25m² living space. There is also 4.5m² of rooftop space above the bathroom and 5m² of storage under the bed. The ability to be heavier is its main benefit over a tiny house on wheels. These module houses have almost no weight restrictions, while THOW's should not weigh more than 3.5 tons. They can also be used with thicker thermal insulation since they can carry more weight. This not only saves energy costs, but also prevents thermal bridges. As a result, they become considerably more durable than typical THOWs. Like THOW, they can be moved as well if necessary. Additionally, slopes of up to 2% can be implemented. They can be solved with foundation extensions specially developed for slopes above 2% (LOVT, 2022).

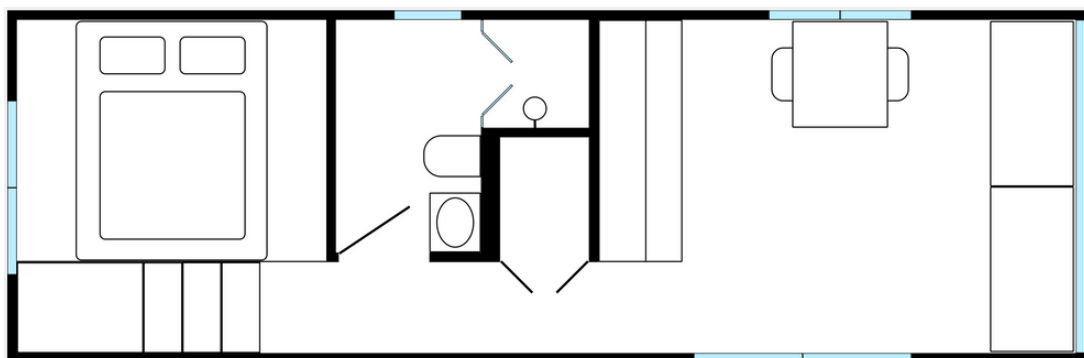


Figure 86. Plan of LOVT Tiny House (LOVT, 2022).

3.3 Tiny House Communities in Türkiye

In Türkiye, the tiny house lifestyle is gaining traction, offering unique benefits that cater to the country's specific needs. The desire to escape densely populated cities, the impacts of the 2020 coronavirus pandemic, and the intention to prevent seismic-prone areas following the 2023 Kahramanmaraş earthquakes, have all contributed to the rise of tiny houses. These structures, often built with environmental considerations in mind, also align with the growing trend of embracing a minimalist way of life and the need for more cost-effective housing options (Figure 87).



Figure 87. The Reasons for preferring tiny house living in Türkiye

3.3.1 The reasons for preferring tiny house living in Türkiye. Many people living in Türkiye can escape the stress and concrete brought by urban life and choose a life in nature. A tiny house is an appropriate option for achieving this need. Tiny houses are commonly built using natural materials, thus reducing their ecological footprint and promoting the conservation of the natural environment. Therefore, people can reside in tiny houses to be in closer contact with the natural environment and minimize their ecological footprint.

Residents of major metropolitan cities in Türkiye can lead a quieter lifestyle by avoiding the challenges related to city living, such as heavy traffic, intense crowds, and noise. Tiny houses, commonly located in rural or forest environments, serve as an attractive getaway for people desiring relief from the pressures of urban life.

The 2020 coronavirus pandemic caused people to reconsider their house needs and way of life. Tiny houses offer a safe place to live by enabling people to reside with fewer and more limited people. These houses facilitate the implementation of isolation and social distancing strategies, allowing the people to take advantage of their need to have tiny houses during this period. Meanwhile, hybrid and remote work models have gained extensive acceptance across several industries. This working style is highly

suitable for people who desire to reside in Tiny Houses full-time or can effectively carry out their professional work from their tiny houses.

For those living in earthquake-prone countries like Türkiye, the stability of houses is a paramount concern. Tiny houses, when constructed using appropriate materials, can offer earthquake-resistant qualities, making them a practical and reliable option for regions susceptible to earthquakes. Their compact sizes also facilitate enhanced accessibility during post-earthquake relief and rescue activities. Following the 2023 cataclysmic earthquakes in Kahramanmaraş, there has been a noticeable shift towards a minimalist lifestyle in tiny houses, reflecting their appeal and practicality in such circumstances.

As environmental awareness grows, people are increasingly adopting more sustainable lifestyles. Tiny houses, with their efficient use of sustainable energy sources and advocacy for water and energy conservation, are becoming an appealing choice for those with a strong concern for the environment. In Türkiye, the preference for tiny house living is particularly strong among those aiming to minimize their environmental impact, further highlighting the environmental benefits of this housing option.

There is a growing tendency to minimize consumption patterns and avoid unnecessary spending. Tiny houses, with their small dimensions and simple designs, promote a minimalist lifestyle. Tiny houses provide an appropriate living environment for people desiring a minimalist lifestyle and aiming to minimize their consumption patterns. Due to the rising costs of traditional houses and lands, people have sought more cost-effective and accessible housing alternatives. Tiny houses enable people to reside in a smaller space, decreasing the expenses associated with housing and prompting them to choose this way of life.

3.3.2 Evaluation of tiny house movement in Türkiye compared to other countries within social and cultural dynamics. The tiny house movement aspects in Türkiye demonstrate similarities and distinctions compared to the global tiny home movement. Cases of tiny houses in America, Japan, Australia, and Europe frequently provide solutions for economic difficulties, limited space, and eco-friendly ways of living. In the United States, most tiny house communities are constructed to provide either temporary or permanent tiny houses for individuals experiencing homelessness.

Conversely, in Japan, they are utilized as compact yet practical living spaces in response to spatial limitations in major urban areas. Australians seeking a sustainable and eco-friendly lifestyle tend to favor tiny houses, while in Europe, they provide alternate solutions specifically for urban housing issues.

In Türkiye, tiny houses are commonly seen as luxurious and secondary houses, chosen as a way of life rather than an essential necessity. High-income individuals who choose to move away from metropolitan surroundings and reside in natural settings tend to prefer tiny houses with contemporary and aesthetic designs. Türkiye utilizes tiny houses in rural regions and resorts, providing them to residents seeking a natural lifestyle. These tiny houses are constructed using superior materials, providing an equilibrium of elegance and comfort.

The tiny house movement in Türkiye is significantly influenced by the country's cultural framework. Turks, known for their social and extroverted nature, have a strong inclination towards communal living and close-knit familial relationships. This cultural influence is evident in the way tiny houses are not just seen as private housing, but also as communal areas that can be shared by both relatives and acquaintances. The movement in Türkiye, with its emphasis on connection to nature and the preservation of traditional family ties, offers a unique perspective that distinguishes it from similar movements worldwide.

Conclusively, the tiny house movement in Türkiye stands out as a more luxurious lifestyle choice, distinct from the global trend. This distinction is a reflection of Türkiye's cultural structure and social dynamics. In Türkiye, tiny houses are not just about living but also about a desire to escape urban life and live in harmony with nature. The strong family ties and the adaptability to community life make tiny houses not just private spaces but also social areas. These unique aspects of the tiny house movement in Türkiye set it apart from similar movements worldwide, giving it a unique character.

3.3.3 Legal and regulatory challenges. The Amendment to the Regulation on the Characteristics of Tourist Facilities, published on January 18, 2024, has implemented significant improvements and regulations for tiny houses in the public domain. The Regulation on the Qualification of Tourist Facilities includes requirements for tiny houses and other types of services. Still, it represents a significant

advancement in establishing the legal standing of mobile houses. According to this legislation (2024), a property in Türkiye must fulfill several requirements to be eligible for accommodating a movable tiny house. The vehicle must have a minimum weight of 0.75 tons and a maximum of 3.5 tons. It should be specifically constructed to be towed by a motor vehicle and configured as a living space with a bedroom and a bathroom toilet. Additionally, it must comply with the regulations outlined in the Road Traffic Act No. 2918, dated October 13, 1983.

Mobile houses on wheels, commonly known as tiny houses, are comparable to towable caravans due to their moving ability and are classified as “trailers” according to the Highways Traffic Regulations (1983). A tiny house is a portable structure that can function as a dwelling. The movable feature differentiates between mobile tiny houses and non-mobile structures by classifying them as moving or non-mobile vehicles. Article 8 of Road Traffic Regulation No. 2918 states that a trailer is a precisely constructed motor vehicle used for transporting individuals or commodities.

Distinct regulations govern mobile and non-mobile tiny houses. The wheeled Tiny House is subject to Highway Traffic Regulations and is commonly referred to as the “Drawing Caravan.” Legal custody has no issues as it is properly established and authorized (1983). According to the Employment Act, this mobile Tiny House on Wheels is independent of the need for authorization. In this scenario, it can be planted in a cultivated field or on terrain suitable for farming. Through this, your Tiny House on Wheels will be assigned the same legal status as a fixed vehicle. The registration process for Tiny Houses depends upon each respective country's legal frameworks. For example, within the United States legal framework, homeowners can submit applications to three specific institutions to officially register their tiny dwellings, known as tiny houses. The rationale behind this variability stems from classifying tiny houses as secondary structures in the United States. However, within the Turkish legal framework, tiny houses are classified as trailers or caravans due to the absence of specific regulations before January 18th.

Chapter 4

Field Studies with the Residents of Tiny House Communities in Türkiye

Understanding the different characteristics and lifestyles of tiny house communities in Türkiye also requires analyzing the impact of these communities on general issues such as sustainability and social participation. This study aims to analyze the lifestyles and social dynamics of tiny house communities in Türkiye. The primary objective of this research is to gain a comprehensive understanding of the tiny house movement in Türkiye and analyses its social, cultural, and economic impacts on society.

4.1 Criteria's for Selected Tiny House Communities of the Research

A semi-structured interview with the residents of tiny house communities has been indicated to be the most accurate method for examining the sociocultural structure of life in these communities. Therefore, three communities, established at different times and with fundamental differences, were found (Figure 88). During the field visits, it was observed that each resident of communities has various backgrounds and lifestyles. Therefore, it has been observed that a single interview with one individual will not be adequate.

While individuals residing in a tiny house community may share similar perspectives on life, they have distinct life dynamics. These dynamics are also reflected in the lifestyles and experiences of the community. Therefore, in order to obtain more data, four people with different motivations and living conditions were interviewed for each community.

Field Study	Location	Settlement Feature	Year of Opening	Number of Plot	Avarage sqm of Plots	Satellite Image
Tiny House Community A	Catalca Istanbul	Far from the urban center, yet in close proximity to residential zones	2021	148	100m ² to 300m ²	
Tiny House Community B	Catalca Istanbul	In a rural setting, situated considerably distant from inhabited areas	2022	77	200m ²	
Tiny House Community C	Urla Izmir	Far from the urban center, situated within a summer tourism region	2023	41	150m ² to 200m ²	

Figure 88. Informative table of selected tiny house communities.

4.1.1 Field study-1, Tiny house community A. Field study 1 is in a tiny house community in Çatalca, Istanbul. The reason why this community was chosen as the field study is that it is Türkiye's first tiny house community. The community, which started to host its first residents in 2021, has become a pioneer in the spread of tiny house communities in Türkiye. Although it is far from the city center of Istanbul, it is very close to some districts with a significant population density. (Figure 89). The community consists of 148 plots with sizes ranging from 100 to 300 square meters (Figure 90). Due to the arrangement and division of the plots, a few plots are less than 100 square meters and more than 300 square meters. Some residents have also purchased several parcels side by side to acquire larger plots of land.

All of its parcels have been sold. As of April 2024, when the interviews were held, the only parcels that can be purchased are by residents who bought them for investment purposes and want to sell them now, who have to sell due to financial reasons, or who need to move abroad for business reasons.



Figure 89. Satellite image with surrounding settlements of tiny house community A (Google, 2024).

The community is 5 kilometers away from the center of Çatalca. It is located 5 kilometers from the northern Marmara highway, one of the most important highways in Istanbul, 35 kilometers from Istanbul Airport and 65 kilometers from Beşiktaş district (Google, 2024). Resident-1(A.1) shared some important demographic information about the community. According to this information, the residents of the community are between 30 to 60 years old. However, the weighted age distribution is between 35 to 50 years old. Almost all of the residents are married and most of them have children. These children are mainly between the ages of 1 to 12. There are not many families with high school-age children. All residents stay temporarily in the community. Since Istanbul's densely populated districts are at least 20 minutes away, it has been very easy for them to come to the tiny house community from their city houses. As a result, residents in this community use their tiny houses as secondary residences.

Approximately 60% of residents do gardening intensively. However, approximately 40% of them do not do gardening work such as planting. The gardens are adorned with seating areas, grass, and ornamental plants.

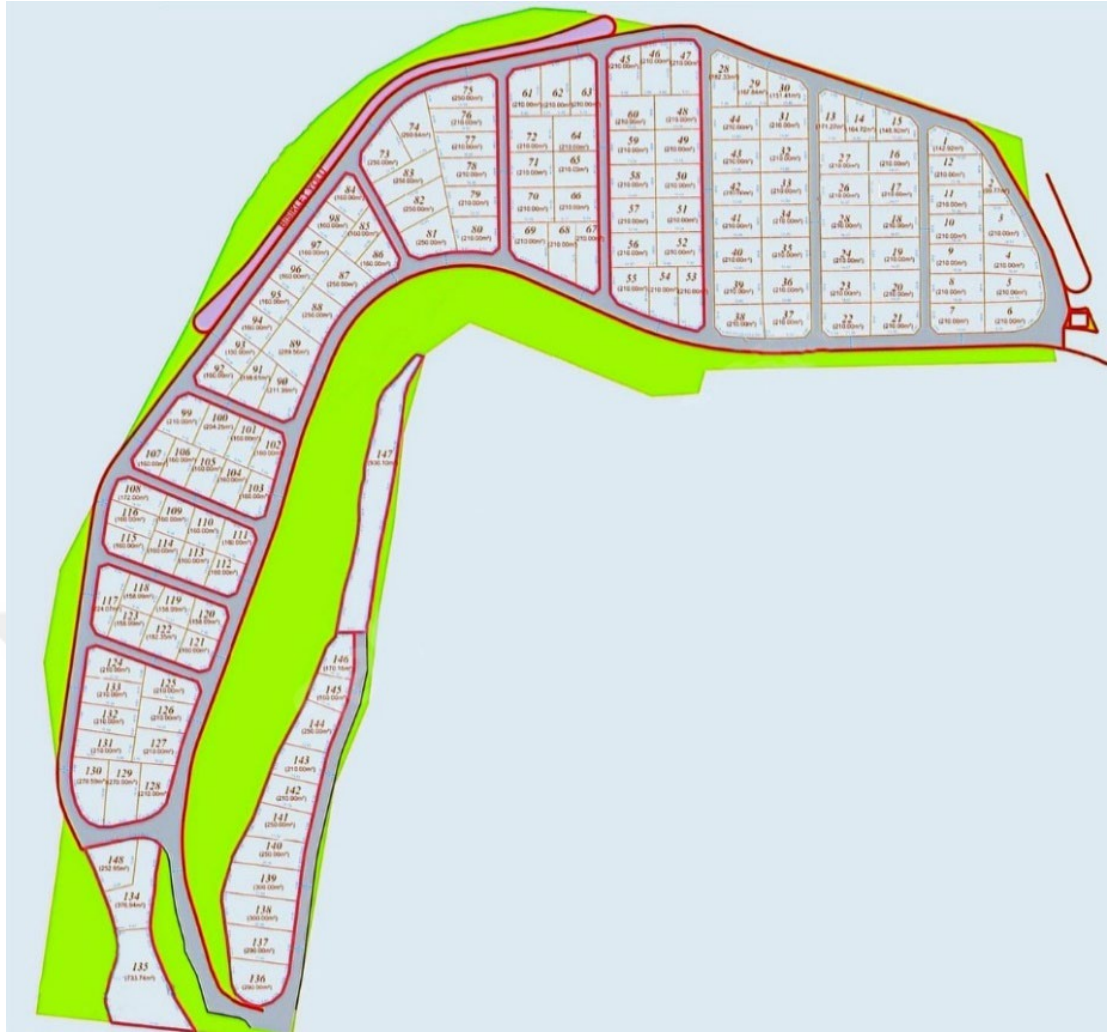


Figure 90. Site plan of tiny house community A.

4.1.2 Field study-2, Tiny house community B. Field study 2 is in a tiny house community in Çatalca, Istanbul. The reason why this community was chosen as a field study is that although it is located within the borders of Istanbul, it is located in a very rural and forested area. The community started to welcome its first residents in 2022. Despite being situated inside the boundaries of Istanbul province, it is situated in a far away, rural region. The location is distant, with the exception of an adjacent village situated 1 kilometer away (Figure 91).

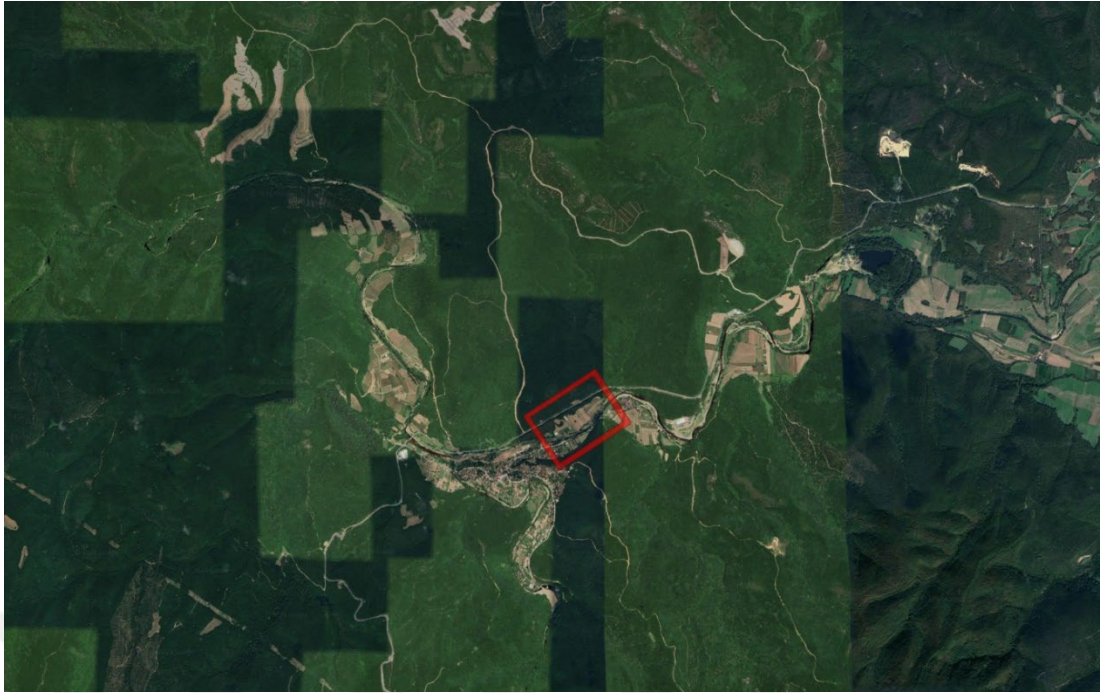


Figure 91. Satellite image with surrounding settlements of tiny house community B (Google, 2024).

In April 2024, a cooperative company will hand over complete land management to the residents. According to some information given by the interviewed residents about the cooperative, the cooperative sells the land to its customers under certain conditions. For example, in order to prevent residents from keeping the land vacant and buying it for investment purposes, they had to place the tiny house within 24 months of purchasing the land. In order to prevent a majority in the tiny house community through mass purchases, a maximum of two family members could purchase land. Furthermore, the community refrains from selling land to foreigners in order to foster healthier and more intimate social and neighborhood relationships.

The site consists of 77 plots of land measuring 200 square meters in size (Figure 92). All of the land has been sold. However, there are also plots on which tiny houses have not been placed yet. Again, according to the information obtained from residents, although efforts were made to prevent purchasing for investment purposes, some lands were put up for sale without adding tiny houses.

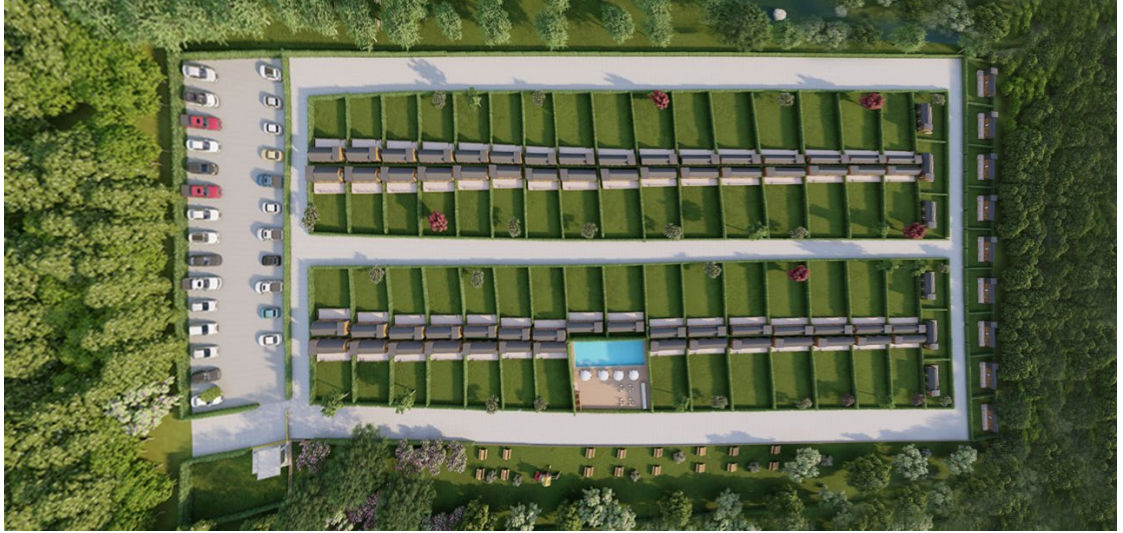


Figure 92. Site plan of tiny house community B (2022).

The tiny house community is located in a very rural area due to its location. Not only the city center but also the Çatalca district center is 48 kilometers away. It is 25 kilometers away from the Northern Marmara Highway and 33 kilometers away from Istanbul Airport (Google, 2024). According to the information received from the interviewed residents, the number of residents was quite diverse. In addition to families with children, there are families without children, retired couples and single residents. Some residents use their houses on weekends and holidays, while others stay throughout the year.

4.1.3 Field study-3, Tiny house community C. Field study 3 is in a tiny house community in Urla, Izmir. The reason for choosing this community as a field study is to examine the resident profile of the tiny house community in Urla, where summer tourism is intense (Figure 93). The community started to welcome its first residents in 2022.



Figure 93. Satellite image with surrounding settlements of tiny house community C (Google, 2024).

The site consists of 41 plots with sizes ranging from 150 to 250 square meters (Figure 94). The company that owns this tiny house community places a high priority on purchasing tiny houses from their own company. Lands are not purchased by residents but are rented annually. The company has two more lands in the Urla region. It provides its residents with the opportunity to move to other tiny house communities after one year of living in the community they first settled in. In interviews with residents, they stated that they liked having these opportunities, but they did not plan to move from here.



Figure 94. Site plan of tiny house community C (Google, 2024).

The tiny house community is located in a rural area due to its location. It is 5 kilometers away from Urla Center. It is 55 kilometers from Izmir Adnan Menderes Airport and 50 kilometers from the central districts of Izmir (Google, 2024). Some residents use their houses on weekends and holidays, while others stay throughout the year.

4.2 Findings Obtained from the Interviews and Their Analysis

This field study used a semi-structured interview methodology to collect data on the experiences, impressions, and recommendations of people living in tiny house communities. The residents were asked 24 questions. The interview questions asked to the residents of the house are attached in the appendices. A total of twelve people were interviewed, four from each of the three tiny house communities, two in Istanbul and one in Izmir, about which general information is given above. Everyone was asked the same questions in the same order. Interviews were conducted in line with the information written in the consent form signed by the residents before the interviews. The consent form signed by the residents is attached in the appendices. Permission was obtained from the residents of the tiny houses to take photographs in the garden, exterior and interior of their tiny houses. Respecting the privacy requests of the residents who did not give permission, unfortunately, no photographs were taken of the interior of their houses.

In order to obtain the most accurate information, A.4 and B.3, who are also the managers of the tiny house communities they live in, were interviewed. Since there is no manager among the residents in community C, it was determined that the residents to be interviewed would have different demographic structures.

4.2.1 Demographic structure of tiny house communities. The residents were first asked to introduce themselves in order to obtain data on the demographic structure of the tiny house communities. As can be seen in Figure 8, residents of tiny houses with different demographic structures and tiny house living experiences were interviewed in the tiny house communities (Figure 95).

DEMOGRAPHIC STRUCTURE									
Field Study	Resident	Age	Gender	Marital Status	Occupation	Education	Number of Household	Move-in Date	Duration of Stay
Tiny House Community A	RESIDENT-1(A.1)	44	Female	Married	Sociologist	Master's Degree	4+1 dog	March 2021	Temporary
	RESIDENT-2(A.2)	57	Female	Married	Optician	Bachelor's Degree	2	September 2021	Temporary
	RESIDENT-3(A.3)	35	Male	Married	Company Executive	Bachelor's Degree	3	June 2021	Temporary
	RESIDENT-4(A.4)	37	Male	Married	Textile Supplier	Bachelor's Degree	4	March 2021	Temporary
Tiny House Community B	RESIDENT-5(B.1)	36	Female	Single	Senior Business Architect	Master's Degree	1+2 cats	April 2023	Permanent
	RESIDENT-6(B.2)	37	Female	Married	Industrial Engineer	Bachelor's Degree	3	November 2022	Temporary
	RESIDENT-7(B.3)	52	Male	Married	Tourist Guide	Bachelor's Degree	2	October 2022	Permanent
	RESIDENT-8(B.4)	48	Male	Married	Financial Adviser	Bachelor's Degree	4	March 2022	Temporary
Tiny House Community C	RESIDENT-9(C.1)	39	Female	Married	Accountant	Bachelor's Degree	3	April 2023	Temporary
	RESIDENT-10(C.2)	38	Male	Married	Lawyer	Bachelor's Degree	3	March 2023	Temporary
	RESIDENT-11(C.3)	33	Male	Single	Marine Engineer	Bachelor's Degree	1	April 2023	Temporary
	RESIDENT-12(C.4)	38	Female	Married	Computer Engineer	Master's Degree	2	February 2023	Permanent

Figure 95. Demographic structures of tiny house communities

The age range of the interviewed residents is between 33 and 57 years old. The spread within this range is between the ages of 30 and 40.

The residents have different professions and are university graduates with at least a bachelor's degree.

The number of residents living in tiny houses varies between 1 and 4. In addition, A.1 and B.1 residents also live with their pets.

As mentioned before, it was aimed to select the residents to be interviewed as the people who have experienced the community the most. For this reason, the selected residents are the ones who have been living in the tiny house community since at least 1 year before April 2024, when the interviews are conducted.

In community A, which is the first tiny house community in Türkiye, residents A.1 and A.4 have been experiencing this life for more than 3 years (Figures 96,97). In September 2024, resident A.2 will complete 3rd year and in June 2024, resident A3 will complete their 3rd year of living in a tiny house, respectively (Figures 98,99).



Figure 96. Tiny house of resident A.1 (Author, 2024).



Figure 97. Tiny house of resident A.4 (Author, 2024).



Figure 98. Tiny house of resident A.2 (Author, 2024).



Figure 99. Tiny house of resident A.3 (Author, 2024).

In community B, which is located in the rural areas of Istanbul, they start living in the community between March 2022 and April 2023. Resident B1 has been living in their tiny house since April 2023 (Figure 100); Resident B2 since November 2022 (Figure 101); Resident B3 since October 2022; and Resident B4 since March 2022. Resident B3 provided very useful data for the interview, but he requested that no photographs be taken of their tiny house.



Figure 100. Tiny house of resident B.1 (Author, 2024).



Figure 101. Tiny house of resident B.2 (Author, 2024).

In community C in Izmir, where life started closer to the present than in the tiny house communities in Istanbul, residents who have been staying in the community for 1 year were interviewed. Residents C1 and C3 have been living in their tiny houses since April 2023 (Figure 102); Resident C2 since March 2023 (Figure 103); and Resident C4 since February 2023. Each resident interviewed in the tiny house community c allowed the inside of their tiny houses to be visited, but they did not find it appropriate to take photographs.



Figure 102. Tiny house of resident C.1 (Author, 2024).



Figure 103. Tiny house of resident C.2 (Author, 2024).

Based on the information provided by resident A.1 in community A, it was determined that there are permanent residents in this community. People stay in their tiny houses for different periods of time such as weekends, vacations or a few days a week.

In all 3 tiny house communities, in terms of socio-economic status, ABC1 has a predominantly B sound. The rightful heads of residents are predominantly professionals or small business owners. The cultural structure is quite mixed, just like in Istanbul.

4.2.2 Motivations for choosing the tiny house lifestyle. Residents were asked about their motivations for choosing the tiny house lifestyle and what factors influenced their decision.

The residents gave similar answers to this question.

The most common response to this question was the desire for a life in touch with nature. Residents A.1, A.4, B.2, B4, C1 and C2 mentioned the importance for them of giving their children a sense of nature. Resident A1 mentioned that she planted some of the seedlings she cultivated in her own garden while giving some to her neighbors (Figure 104,105). Resident A.2 stated that always dealing with plants and soil made her happy. Residents A.3 and A.4 stated that one of their goals was to grow vegetables and fruits with his wife and provide their children with these products (Figure 106,107).



Figure 104. Plants grown and consumed by the resident A.1 (Author, 2024).



Figure 105. Seedlings cultivated by the resident A.1 for growing (Author, 2024).



Figure 106. Plants grown and consumed by the resident A.3 (Author, 2024)



Figure 107. Plants grown and consumed by the resident A.4 (Author, 2024).

B.1, who lives permanently, stated that it was her dream to wake up to the sounds of nature rather than vehicles. B.3, who also lives permanently, and his wife have dreamed of living on a farm in touch with nature for a long time. However, when they researched the tiny house movement, they realized that what they needed was not a big house, but nature (Figure 108).

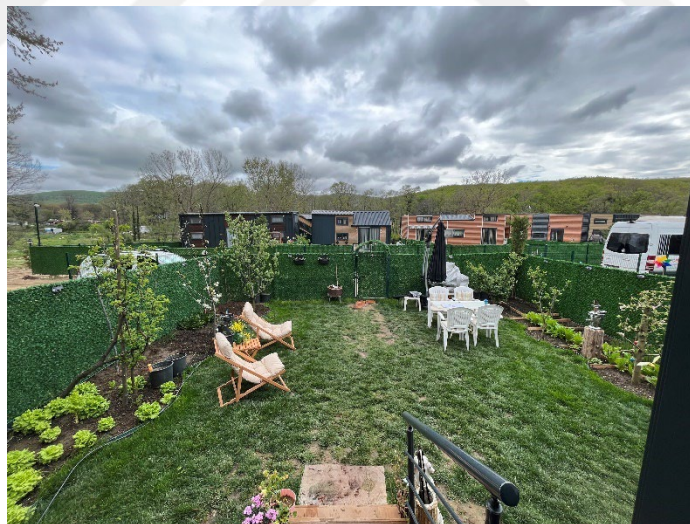


Figure 108. Resident B.3's beloved garden in nature (Author, 2024).

The most common response to this question was to escape the noise and density of the city. Resident A.2 realized that she and her husband did not want to live in the city even before the pandemic. While they were researching living in a single-family house in rural areas, they shifted their research in this direction with the trend of tiny

houses that became widespread after the pandemic. As a result, they spend a few days a week in community A.

Resident A.3 stated that he and his wife have been living a full city life since they were born, but both of them are getting tired of overcrowding. After the outbreak of the pandemic in 2020, they realized that they needed to move to a life where they could isolate themselves but not be too far away from their family and social life. They stated that they were able to breathe in a tiny house, which is not far from their city houses.

None of the above motivations live in their tiny houses for the full time of the year. However, residents B.1 and B.3 live in their houses permanently. B.1 was a person who almost never went out because she worked from the house in her city house before she settled in tiny house community B. She stated that she even met friends and family in her own house because the crowds of the city were too tiring for her. After realizing that she wanted to change this, she started researching the tiny house movement. She stated that her main motivation was realizing that the view from her previous house was another building.

Resident B.3, who lives permanently in the same community, stated that his main motivation was to live with fewer people. The resident, who works in the tourism sector with his wife, had to work with a lot of people and in densely crowded environments due to their jobs. They decided that they wanted to live in a calm and quiet place at least in their private lives.

Resident B.4 lives with his wife and two children in Şişli, one of the busiest districts of Istanbul. The owner of the house stated that this density exhausted them and that coming here even for a day at the weekends made them feel very relaxed. None of the residents of community C in Izmir mentioned getting away from city life among their motivation for living in a tiny house community.

As in the rest of the world, the 2020 coronavirus pandemic has increased the preference for living in tiny houses in Türkiye. Since community A started selling during the pandemic, it was seen that the motivation of most of the people living in this community was to escape from the pandemic and the disease. The residents of community B mostly stated that they started to research this life after the pandemic.

None of the residents in community C in Izmir mentioned the pandemic among their motivation for living in a tiny house community.

In addition, B.2, C.1 and C.4, who felt close to the minimalist life, which is the basic principle of the tiny house movement, cited this lifestyle among their motivations for choosing this lifestyle.

4.2.3 Designing process of tiny houses. Tiny houses, organically integrated with the natural surroundings, align with the principles of minimalism and promote eco-friendly lifestyles, serving as a distinctive representation of personal creativity and environmental consciousness. Residents are embracing a lifestyle that involves incorporating their unique personalities into the interior design of their tiny houses, while also adapting to the constraints of living in smaller spaces. To gain a deeper comprehension of this way of life, residents living in tiny houses were interviewed to explore the impact of limited living space on their perspective of life, the innovative methods they employed for interior design and organization, the significance they attributed to sustainability and the infrastructure services that supported their communities.

4.2.3.1 The reflection of personal character in the tiny house. The residents were asked about the places where their tiny house life reflects their uniqueness and personal style. Resident A.1 stated that this lifestyle does not harm nature, just like her. Resident A.2 stated that they are interested in decoration and it makes them very glad to see their own design decisions inside the house and in the garden (Figure 109).

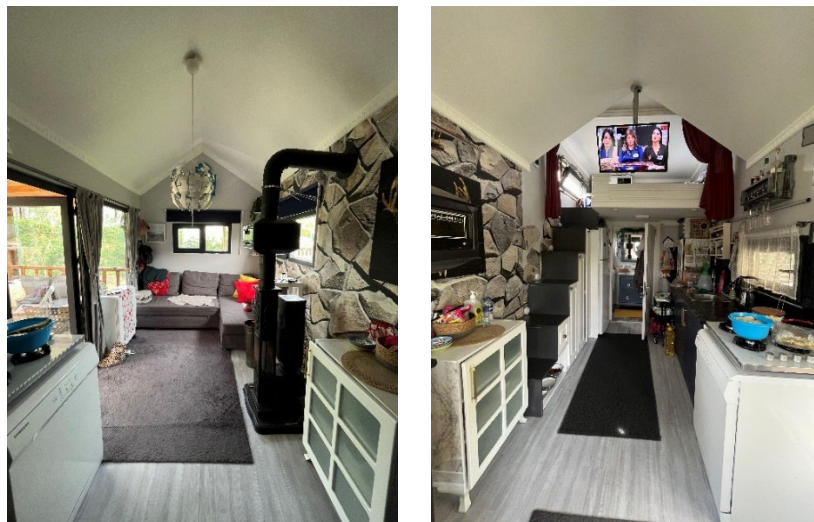


Figure 109. Interior design of the tiny house of the resident A.2 (Author, 2024).

Resident B.2 stated that she and her husband have many friends and they are very happy to host them in their tiny house. Accordingly, there is a guest room on the loft floors in their house (Figure 110).

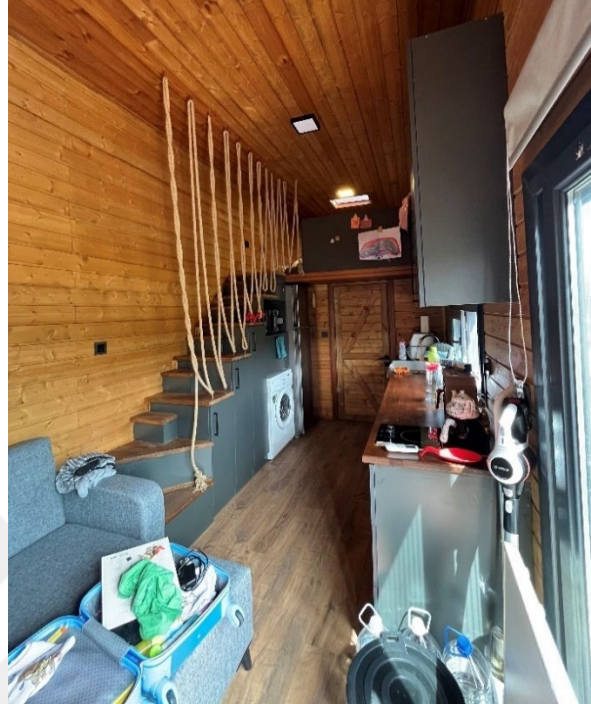


Figure 110. Interior design of the tiny house of the resident B.2 (Author, 2024).

They stated that they believe that the fact that they have thought about their guests and designed their houses accordingly reflects their hospitality. B.3 stated that designing a functional house is more important for them rather than reflecting their own originality since they live in their house permanently (Figure 111).



Figure 111. Interior design of the tiny house of the resident B.3 (Author, 2024).

C.1 stated that using minimalism in the design of her house reflects herself. C.4 thought that the choice of bright colored furniture in her house reflected her colorful personality. The other residents gave similar responses, indicating that they were able to reflect their own personalities in their tiny houses to some extent.

4.2.3.2 *Less space, wider perspective and change in consumption habits.* The residents were asked what kind of perspective the limited living space gave them. They were also asked whether there was a change in their consumption habits and possessions.

The majority of the residents stated that there were noticeable changes. They pay attention to the fact that the items they buy for their tiny houses are functional and ergonomic. They also stated that many of the items in their city houses are not actually necessary. A.3 resident gave the example that they always used a grater in their city houses, but they realized that they did not really need it because they did not have a grater in their tiny houses and they reduced its use in their city houses. C.2 stated that they look at every item they buy in their tiny houses from the point of view of how they can use it for more than one purpose, how they can make use of it in other ways.

A.1 stated that her life in her tiny house did not change her point of view since she did not like too much furniture in the first place. A.4 stated that they did not gain a different perspective since almost all the facilities in their city houses were also available in their tiny houses.

4.2.3.3 *Interior design strategies.* The residents were asked to provide information about the interior design and organization of their tiny house. They were asked whether they were involved in the design process and whether they experienced any difficulties in that process.

All of the residents stated that they were involved in the full design process. In fact, resident A.2 pointed out that she and her husband completely built the house together (Figure 112).



Figure 112. Photographs illustrating the construction process of the tiny house, as shown by resident A.2 (Author, 2024).

Resident A.4 also mentioned that he was involved in every stage of the design process. However, he also stated that it was very difficult to find employees to undertake the construction. Some of the workers consider tiny houses as second houses built for pleasure, and therefore ask for more payment from the residents.

For the difficulties they experienced, the residents mostly stated that they could not explain the design details they wanted to the manufacturer company. They also stated that they lost space they did not want as a result of incorrect productions being overlooked.

Most of the residents wanted the common space in the tiny house to be kept large. For instance, resident A.3 decided to make the bathroom and bedroom 50 centimeters narrower just to make the living room wider (Figure 113,114).



Figure 113. A photograph depicting the bathroom of the resident A.3 (Author, 2024).



Figure 114. A photograph depicting the bedroom of the resident A.3 (Author, 2024).

Spending time in the garden was an important part of the house for resident B.2. In the interior there is a bedroom for their overnight guests. When the sofas are made suitable, 6-8 people can sleep in the house. They chose anthracite and warm wood colors for the interior because the interior is intended for sleeping and they themselves like a more dimly lit environment. They also used natural wood to bring the smell of wood, which they really enjoyed, into the interiors of their tiny house (Figure 115).



Figure 115. Use of natural wood indoors of resident B.2 (Author, 2024).

Another very important issue for the residents was to provide sufficient storage space. Permanent resident B.3 built the veranda at a higher elevation so that the fence built around their plot would not block the view in order to provide more privacy. This created a lot of empty space of the veranda. The residents also used these empty spaces as storage (Figure 116).



Figure 116. Storage spaces under the tiny house of resident B.3 (Author, 2024).

Resident C.2 stated that it was very useful for them to have a hatch installed under the stair treads, which are found in most tiny houses and to utilize them as storage spaces.

Kitchen facilities were also designed according to the requests of the residents in line with the frequency of cooking. For example, resident C.4 likes to cook a lot and

has a large kitchen. In addition, with the removable and attachable additional countertop, she can increase the countertop area of her kitchen if needed.

Bedroom areas are also designed in different conceptualizations for the residents of the tiny houses. In the tiny houses with loft floors, sleeping areas are located on these floors, while the length of the single-storey houses is 8 and 9 meters to keep the living area wide. For the permanent resident B.1, the sky windows in both lofts are highly significant (Figure 117). Since she enjoys reading books very intensely, she had the other loft designed as a reading corner.



Figure 117. The sky window in the resident B.1's tiny house (Author, 2024).

Most of the residents have a veranda. Residents emphasized that they spend a lot of time in these open/semi-open/closed spaces between the interior and the garden. However, the residents of community A stated that they were frequently inspected in this regard. Residents stated that the Istanbul Metropolitan Municipality requires verandas to be open and that residents are fined if they are enclosed.

4.2.3.4 Sustainability initiatives. The residents were asked what tiny house lifestyle meant to them in terms of sustainability. All of the residents stated that environmental sensitivity was a very significant factor for them. The residents consider that they achieve the principles of sustainability mostly through organic farming in the garden. In addition, some of the tiny houses use solar energy, while others are considering switching to solar energy. However, especially the short-term residents

stated that they decided to consider solar energy for a while as it would be quite costly for them at the moment.

For the majority of the residents, it is also very crucial to avoid construction on their plots. For example, user A.1 stated that she did not prefer her land to be turned into a share deed. In this case, land owners would have constructed. However, she argues that they should live with nature, not in spite of it (Figure 118).



Figure 118. Garden of the resident A.1's tiny house (Author, 2024).

A.3 resident exemplified that they preferred wooden, which is a natural material, rather than the more durable aluminum, as the material of the fence they would build around their land.

C.4 stated that it is very significant for them to live in nature without leaving a trace in nature. She stated that they have started to separate their garbage and that they attach importance to recycling.

Resident B.1 stated that her food consumption has also decreased in her tiny house where she stays permanently. When she was in the city house, she sometimes used to eat out of frustration. She stated that she was eating less since she is constantly in a state of activity and movement. She also realized the excess of what she consumed here. She said that people in the neighboring villages also brought eggs from their farm chickens and milk from their animals and shared them. When it was in season, they went to the forest to pick mushrooms and cook them. For these reasons, she said, she felt as if she would not go hungry here even if she had no financial means.

All the communities use the electricity of the landowner company, which is distributed to each house from a single center. Resident B.4 stated that there are tiny houses that have not yet been placed on their plots and they are concerned that the

electricity will not be enough when these tiny houses arrive. For this reason, most of the residents are preparing to switch to solar energy.

4.2.3.5 Infrastructure services. Residents were asked how they receive the necessary infrastructure services in the tiny house community in which they live. The residents of community A stated that the tiny houses have well water lines, electricity is connected to every house, but sometimes it is not enough. They also stated that they have septic tank connections. They also added that some houses were using or preparing to use solar energy.

Residents of community B stated that they have a water tank, each tiny house is connected to electricity and they also have septic tank connections. There are also residents in this community who use or are preparing to use solar energy. Residents C stated that the company that owns the tiny house community provides all the infrastructure services and then gives the plots to the owners. Since the residents of this community do not buy the plots but rent them for a year, they pay a monthly fee for these infrastructure services.

4.2.4 Daily life experiences in the tiny house communities. Residing in tiny house communities is regarded as a decision that includes not only accommodation, but also community and lifestyle preferences. Although this lifestyle facilitates social cohesion and fosters close relationships, it also provides certain practical challenges. Tiny house communities address various concerns, including the formation of social dynamics, management and decision-making systems, security and privacy measures, access to healthcare, social interactions, shopping services, the process of overcoming challenges and implementing solutions, and the financial and practical aspects of caregiving. The questions were posed under those subjects in order to gain a more profound understanding of the lives and lifestyles of tiny house community.

4.2.4.1 Social dynamics: Cultivating communities and fostering strong bonds. Residents were asked about the effects of their tiny house lifestyle on their social lives. In the continuation of this question, they were asked whether there is a difference in their social interactions compared to their traditional urban resident life.

All residents stated that their social lives were positively affected. Most of them gave examples based on the apartment neighborhood they lived in the city.

A.1 stated that since she lived with white-collar workers with a similar socioeconomic life in her apartment building in the city, living here with people with different lives but the same respect for nature contributed a lot to her personal development.

C.4 stated that she did not even know her neighbors from the apartment building she used to live in the city.

The residents mostly associated the difference in social life with the neighborly relations in the tiny house community where they lived. Resident A.3 stated that although they were in nature, there was not much privacy with their neighbors. Despite this, he added that everyone respects each other. There were even residents they had met in the tiny house village and were now family friends.

Residents reported that their social interactions with their neighbors in the tiny house communities were different and stronger than their social interactions with their neighbors in the housing complex in the city.

For example, resident B.1 was in constant contact with her neighbors in the community. Especially on the weekends, since a lot of people come over, they have more intense interactions on the weekends. They were in intense communication such as having coffee in the evenings, sitting and chatting until midnight. He stated that not only she but everyone in the community communicates with each other and no one is left isolated.

The residents of A.1, A.3, A.4, B.2, B.4, C.1 and C.2, who are families with children, keep in closer contact with other families with children. In this way, they increase the social interaction of their children. They stated that their social life in their tiny houses in the city was very unorganized, whereas here it was more dynamic (Figure 119).

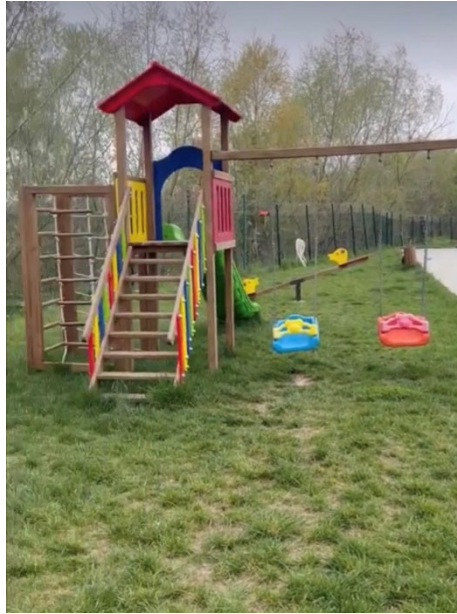


Figure 119. Playground of the tiny house community A (Author, 2024).

B.3 responded to the question in terms of their status as tenant-landowner. Since everyone in community B is a property owner and not a tenant, those who live in tiny houses do not change. They stated that a situation like the apartment building they lived in in the city, where people constantly moved out and were replaced by new people, would not occur in the community. They socialized at the pool, children's playgrounds, and spent time together while taking care of the animals in the community (Figure 120). Most residents stated that even if they disagreed on some issues, they could always find common ground.



Figure 120. Playground of the tiny house community B (Author, 2024).

In order to better examine neighborly relations in the communities, it was asked about the existence of social areas or activities that people can participate in. All residents stated that there are both social areas and activities.

Since the community A consists of 141 plots, it is not possible to gather everyone in one place. The immediate neighbors keep their social ties strong with the activities and gatherings they organize among themselves. Nevertheless, there were also events where the whole community could participate together. The residents of community A stated that they organized a sapling planting event with children in an area that had been barren for a long time. There was also an event to celebrate the children's festival on the weekend of the interview.

Residents in community B reported that neighbors are guests in each other's gardens and do activities together. Before the summer of 2024, new tiny houses joined the community and they are planning to organize a meet and greet gathering soon. In addition, the residents were taking walks together during the day. In the children's playgrounds, they chat while the children play. There is a project to build a pergola by the stream in front of the community. The shared pool in the community was not very inviting. At the time of the interviews in April 2024, residents were in the process of developing ideas on how to improve it.

In Community C, a strong sense of community and neighbors get along well and help each other. It is also possible to socialize in common areas such as pools, playgrounds, zoos, and bicycle paths (Figure 121). An organization that would appeal to the whole community has never been organized yet. Neighbors used to host each other in their own gardens.



Figure 121. Communal swimming pool of the tiny house community C (Author, 2024).

4.2.4.2 Social dynamics: Governance and Decision-Making Structures.

Residents were asked about the governance structure in their tiny house community and their influence on decision-making processes.

The landowner of community A has completely withdrawn from the cooperative management and left it to the residents. The residents also manage the community through their own board of directors. Resident A.4 has been the chairperson of this board since January 2024. The board meets once a year to discuss community issues, budget, monthly fees, etc. with parcel representatives. Other than that, daily issues are decided by voting in the group they have established on the social communication application.

In community B, the landowner cooperative will hand over the management completely to the residents in May 2024. B.3 resident is the managing resident of the community in April 2024 when the interviews were conducted. As in community A, daily issues are resolved by voting in the social communication application group. When the management of the community is completely transferred to the residents, they will complete the projects that the landowner company has committed to but has not completed. Resident B.1 stated that they had many ideas to beautify the community they live in and that they thought it would be better if they took over the management. In addition, as a permanent house owner, she would also be on the board of directors.

In community C, residents are not the owners of the plots of land, but yearly tenants, so they do not have the authority to make decisions on community issues.

4.2.4.3 Security and Privacy Measures. Residents were asked what they thought about the security and privacy measures in their community.

In overall terms, all residents stated that they felt safe.

In community A, there are cameras that monitor the main roads 24/7. However, they are not placed on the roads between the plots as they would violate the privacy of the garden. Residents reported feeling safe despite acknowledging the community's imperfections in security. Residents A.1 and A.3 noted minor losses during the construction phase, though they felt limited in their ability to address them. Resident A.1 also stated that the dogs in their garden made them feel safer. A.3 resident's tiny house is located at a higher altitude and further away from the community entrance than the other residents. He stated that there are some security weaknesses due to the

fact that the location of his plot is more insecure than other tiny houses and that someone can easily enter his house from the forest side. He also stated that it is very difficult for the security guards who are constantly patrolling to come to their land. Despite this, they felt very safe.

Despite facing security challenges, residents in community B generally feel safe. There are 3 security guards working in shifts. Although the security guards are very helpful and friendly, they are aware that it is not possible to protect the whole community at the same level of security at all times.

Due to a problem with the municipality to which the community is affiliated, the land could not be surrounded by a fence. For this reason, in fact, anyone can enter the community from wherever they want. For example, villagers can easily access the community to graze their sheep. They stated that they will work on this issue when they take over the management.

In community C, all residents stated that they felt safe. The plot is completely surrounded by a garden wall and cannot be seen from inside (Figure 122). There are also security guards on patrol and waiting in the security booth. There are also security cameras recording 24/7.



Figure 122. Entrance and surrounded garden walls of community C (Author, 2024).

4.2.4.4 Access to health, socialization and shopping services. Residents were asked whether they think they live a life away from health, socialization and shopping services.

Since community A is located on a street with heavy traffic, is not in a rural area and is very close to the center of Çatalca district, none of the residents stated that they do not consider that they live an isolated life far away. They also stated that the hospital is very close to them when necessary.

Community B is located in a very rural area although it is within the borders of Istanbul. Accordingly, all of the residents stated that they were far away from this particular health service. Except for the health center in the nearby village, the residents stated that there is no health service very close by. In addition, B.2 and B.4 residents stated that since they do not live permanently, they take care of their hospital procedures at a hospital in the city center. For those who live here, they stated that they think that the ambulance that will come in case of an emergency will come to the community in the same time as the ambulance that will come in the city. They could easily get shopping from the nearby village, and if they could not find it, they bought it from the markets around their houses in the city.

All users in community C did not think that they were far away from these services. When needed, they could order anything they wanted and have it delivered. However, user C.3 stated that it was exhausting for him to go everywhere by car.

Also, residents were asked whether there are any special circumstances of tiny house life that need to be taken into account in terms of health.

The residents responded to this question from different perspectives. For example, resident A.1 reminded that the tiny houses are made of wooden material and that their maintenance should not be neglected in terms of health.

Accordingly, residents should be cautious against all kinds of insects and animals they may encounter. They should also be aware of allergic reactions. They also reminded that attention should be paid to sunstroke in the open air. Residents stated that they spend more time in the garden than they expected. This can sometimes cause physical harm such as back pain, sun on the head and leg pain.

4.2.4.5 Navigating challenges and embracing solutions. The residents were asked if there are any challenges that living in a tiny house brings to them. The user A.1 stated that she did not build a veranda at first since she did not want to make additional construction to the yard, however, since they had a very tough winter, she built a detachable veranda in accordance with the law. Residents A.3 and C.3 stated that insects were very difficult for them at first. Especially C.3 stated that insects were the most serious problem they had due to the fear of their children.

The residents of A.2, A.4 and C.1 stated that living in a tiny house community did not bring any difficulties for them. C.1 stated that they did not see the difficulties they experienced in this tiny house as a challenge, as they saw their tiny house as a complete escape from their life in the city. They stated that they did not have any problems with the insulation of the house, heating and cooling with air conditioning.

Residents B.1 and B.3 stated that they started to experience back pains due to gardening. Resident B.1 also stated that she felt that the work in this tiny house was more intensive and exhausting compared to the city house.

Residents B.3 and C.3 mentioned a similar challenge. As in any house, problems can arise in tiny houses. Solving these problems is challenging and costly. Since they are far away from the city and have sensitive infrastructures, they need to choose the employee who will repair their tiny houses very well.

B.3 explained this issue with an example. In Istanbul, when any design or repair needs to be done, the owner of the house chooses among many alternatives. However, there is not such an opportunity in community B. Since the people who will do the work are also aware of this, the residents state that they have problems with the stated cost of the work.

Resident C.3 stated that he had difficulties in this regard as he was used to having a market and restaurant around his house all his life. Not being able to access everything he wanted as before was a difficulty he noticed. He stated that he was not very comfortable with ordering everything online. He also stated that it is exhausting to have to go anywhere by his car.

4.2.4.6 Unveiling the costs and maintenance realities. Residents were asked about their views on the cost and maintenance of their tiny houses. Some residents mentioned the costs during the construction process, while others mentioned the additional costs incurred after they had started living in the tiny house. The residents of community A noted that since they had been living in the village since 2021, there was a huge difference between the costs then and the costs in April 2024 when the interviews took place. Regarding today's production costs, they pointed out that there are now many manufacturing companies and that it is possible to produce a tiny house for every budget.

While several people claimed that their tiny houses are not prohibitively costly, others stated that their costs are continuous. For example, resident B.1 stated that his permanent house does not cost much. He attributes this mainly to the fact that he uses solar panels. The only cost was the excessive use of electricity. However, he attributed this to the fact that his tiny house was good. He added that in other tiny houses, there were issues such as flooding, peeling paint and wood, problems caused by poorly manufactured drains which caused cost and maintenance problems. Similarly, B.2, C.2 and C.3 residents stated that their tiny houses did not cause them any additional costs. The amount of food they eat and the amount of products they spend on cleaning has also decreased since they moved to tiny house living. Resident C.3 further claimed that the costs spent in the community are significantly lower in comparison to the cost of residing in the city center.

On the other hand, some residents also reported that their tiny houses constantly cost them additional costs. B.3, who chose a tiny house for permanent living, noted that the financial considerations extended beyond the initial purchase. Especially the cost of gardening was considerable. The landscaping of the garden, the need to build a veranda, the improvement of the heating conditions are some of the costs that arise after they start living in a tiny house. They also stated that their grocery shopping expenditures have decreased significantly. Resident C.2 stated that the tiny house does not have different maintenance needs than the old city houses and that they anticipate that it will need improvements such as painting or whitewashing over time. Similarly, resident C.1 stated that since the tiny house was purchased and they started living in it, the costs of the house have not decreased. They have faced many costs

such as the construction of the veranda, garden maintenance and landscaping, installation of mosquito nets on the windows, monthly maintenance of the tiny house and cleaning.

4.2.4.7 Daily routines. Residents were asked to talk about their daily routines. Accordingly, the residents stated that they mostly go asleep early and get up early in the morning. After completing their walking and breakfast routines until noon, each resident continues their day in their own way.

Most residents spend their day intensely engaged in gardening. Surprisingly, resident A.3 noted an increase in physical activity and resulting fatigue while living in the tiny house. Resident C.4 stated that gardening tires her a lot but at the same time it is very enjoyable.

B.1, who lives permanent in community B, stated that she starts her day by getting up at 7.30 in the morning at the latest. She walks around with their cats until about 9 am. They were accompanied by the adopted dogs of the community.

Interestingly, cats and dogs are now used to each other. She was working remotely as an employee of a bank between 9 am and 6 pm. In the afternoons she took care of his personal affairs. In the evenings she usually takes care of the garden. She was intensely involved in garden work such as pulling weeds, sowing seeds, planting flowers. After dinner, at around 10.30 pm, she goes to sleep.

In contrast, B.2, who only came on weekends and holidays, like the others, started the day by having breakfast early in the morning. Then they spend time with their children. Reading books, gardening and walking were among their daily routines. Since they use their tiny house mostly for relaxation, their routines here are also relaxing activities.

4.2.5 Residents' general thoughts and recommendations. Nowadays, there is a growing trend in the popularity of tiny house communities, which are emerging as an alternative lifestyle decision for people. The experiences of individuals residing in such communities demonstrate the pleasant nature of this lifestyle and its advantages that beyond those of traditional housing alternatives. Nevertheless, individuals who are unfamiliar with this way of living may have certain misunderstandings about tiny house communities. In light of this, the residents of the community will be surveyed

to gather their insights and recommendations regarding the future expectations of similar communities.

4.2.5.1 Mobility and relocating tiny houses. Residents were asked if they had any experience of moving their tiny houses and traveling or moving to a different place.

All of the residents of communities A and B stated that it is not possible for them to move their tiny houses to a different place as their tiny houses and gardens are very well established.

However, A.1 stated that in case of a possible regulation, if they had to move, they would like to move their tiny house to the same place with their close neighbors.

Community C offers an opportunity to the residents. The same land-owning company has 2 more plots in Urla. The company offers the residents the opportunity to move to the community of their choice after staying in the community for at least 1 year. However, as of April 2024, when the interview was conducted, none of the residents stated that they had no plans to move their tiny houses. Only resident C.2 stated that they might consider it in the future as they have not yet experienced a winter with harsh conditions here.

4.2.5.2 Common misconceptions. Residents gave many different answers to question about common misconceptions of people who do not experience tiny house community life. The most common misconception that resident A.1 heard was that people can move their tiny houses to wherever they want, whenever they want. However, she said that even if this is possible, it is a very difficult move due to the infrastructure connected and the agricultural labor involved. She also heard that another prejudice was that the tiny house was too cold in winter and too hot in summer.

Resident A.2 stated that the most common question people ask her is whether there are insects where they live. The resident explains that this is quite natural as they live in the midst of natural life.

Resident A.3 states that people think that they have free time to read books and drink coffee. However, because they come for short periods of time, they have little time to sit and relax from the chores of the house. He was also often asked to explain how they fit into a tiny house.

Residents C.2 and C.4 also stated that they received a lot of questions about their storage space.

Residents gave many different answers to this question. The most common misconception that resident A.1 heard was that people can move their tiny houses to wherever they want, whenever they want. However, she said that even if this is possible, it is a very difficult move due to the infrastructure connected and the agricultural labor involved. She also heard that another prejudice was that the tiny house was too cold in winter and too hot in summer.

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Residents C.2 and C.4 also stated that they received a lot of questions about their storage space.

Resident B.1 identified the prevailing misconception as the belief that year-round habitation within a tiny house community is not feasible. She believes that people generally look at tiny houses as a summer house or a vacation spot. In fact, they are more comfortable than living in a house in the city. The resident stated that before she moved to the community, her close relatives told her that she would not be able to live here in the winter, that she would not survive. However, she spent the winter quite comfortably. She also stated that the very good insulation of her house had a great effect on this.

Residents A.4, B.1, B.3 and C.3 also stated that the one of the most common prejudices they heard was the belief that they could not stay in these houses permanently. However, according to resident C.3, Izmir is not very cold in winter anyway, so it can be lived in if the necessary infrastructure and insulation systems are installed.

In addition, B.1 said that another misconception is that some people do not consider the juxtaposition of houses in tiny house communities as a natural way of life. However, the resident thinks that this layout is good for socialization. It was entirely

their own choice whether they wanted to be neighbors with others in natural life or not.

4.2.5.3 *Tranquility and self-sufficiency attract.* Residents were asked what they enjoyed most about living in their tiny house lifestyles.

Residents overwhelmingly expressed a deep satisfaction with the connection they felt to the natural world. This immersion in nature proved to be the key element to their happiness in tiny houses. Resident A.1 was very pleased that the inside and outside of the house were intertwined.

Resident B.1 said that seeing the sun, seeing the clouds, being able to pick mushrooms from the forest, growing own fruits and vegetables, touching the soil, being able to walk barefoot on the grass, in short, being self-sufficient is the most enjoyable aspect of living in a tiny house community.

Demonstrating the village's sense of community, B.3 shared his satisfaction with the collective effort to adopt the three stray dogs living in their midst. They built a hut for them and provided shelter. They met their food needs. The dogs were also aware of this care.

C.2 stated that his child was very pleased to eat the fruits he picked from the fruit trees he had never seen in the city center.

4.2.5.4 *Advices from residents.* The residents were asked about advices they would give to people who are considering living in a tiny house community.

Accordingly, the residents gave very important advice. First of all, they stated that one should not buy a house directly without being sure.

They stated that they should experience this life in tiny houses that can be rented for a few nights and then proceed with the decision-making process. They should have the house designed according to their needs and expectations. They will already have small square meters and it should be suitable for their own functions.

In particular, both sides of the couple should agree to be able to experience this lifestyle. Because according to A.2 residents, it is necessary to be very self-sacrificing for this lifestyle. Residents emphasized the necessity for independent maintenance capabilities. Should minor malfunctions or upkeep needs arise within the dwelling, access to professional handyman or gardening services may be limited. This

necessitates a degree of self-sufficiency and the willingness to acquire basic repair and maintenance skills.

They have to be open to learning new things through experience.

Resident B.2 stated that people who want to experience tiny house should remember that they will not find the comforts of city houses here. Resident C.2 suggests that if families with children want to live in a tiny house community permanently, they should be aware that these tiny houses are cramped inside and it will not be easy to live crowded. They should be aware that they will be living in nature. They are likely to encounter animals such as snakes and mice which are part of natural life.

Residents B.1 and B.3 stated that living in a tiny house community should not be seen as a financial investment. They recommend it to people who like to live quietly and spend quality time with nature.

They stated that the residents should pay attention to the construction and design of their tiny houses.

The company that will manufacture the house is very important. They emphasized that the first criterion is not the cost, but choosing a company that can make insulation and infrastructure installations well. The completed house experienced problems such as disintegration and damage while being brought to the community. Therefore, the residents emphasized that the first criterion is to choose the company that will produce the tiny house very well.

4.2.5.5 Future expectations from residents. Residents were asked about their thoughts on the future of living in tiny house.

Residents think that the tendency to live in tiny houses will increase. They believe that the widespread use of telecommuting, the increasing difficulty of owning a house due to rising prices, and the anticipation of the Marmara earthquake will cause this increase to a great extent.

C.3 stated that this increase can be controlled by a law to be enacted.

According to resident A.2, tiny house communities are not tolerated by the real estate market, so people who want to prefer this lifestyle are discouraged from doing so without being given the right information. She stated that he believes that if middle ways are found, it will increase in a controlled manner.

4.3 Findings and Discussions

4.3.1 Interpretation of findings on motivations for choosing the tiny house lifestyle. The motivations for adopting the tiny house lifestyle prominently feature a desire to connect with nature. Residents often expressed the importance of fostering a love for nature in their children and seeking a more tranquil way of life. For instance, Resident A.1 shared seedlings with neighbors from her garden, and Residents A.3 and A.4 aimed to provide healthy produce for their family, highlighting a trend towards self-sufficiency and environmental engagement.

The desire to escape the noise and density of urban life is another significant factor. Residents A.2 and A.3 noted their disinterest in city living even before the pandemic, with the pandemic further propelling their shift towards tiny house living. This underscores the appeal of tiny houses as a refuge from urban stress and overcrowding.

Permanent adoption of the tiny house lifestyle by residents such as B.1 and B.3 illustrates the pursuit of a more peaceful existence. B.1 found solace in tiny house living after feeling confined by city crowds, and B.3, along with his wife, sought a quieter personal life away from their busy work environment in the tourism sector. This reflects a broader desire for tranquility and simplicity.

The 2020 coronavirus pandemic significantly influenced the preference for tiny house living in Türkiye, particularly in community A, where most residents cited pandemic-related motivations for their choice. Conversely, residents of community C in Izmir did not list the pandemic as a motivating factor, highlighting regional and individual differences.

Additionally, an affinity for the minimalist lifestyle, a core principle of the tiny house movement, was a motivating factor for residents such as B.2, C.1, and C.4. This reflects a societal trend towards simplicity and sustainability.

In conclusion, the motivations for adopting the tiny house lifestyle in Türkiye revolve around a desire for nature connection, urban escape, pandemic-related considerations, and minimalist living. These factors collectively demonstrate a shift towards a simpler, more peaceful, and environmentally harmonious way of life.

4.3.2 Interpretation of findings on the designing process of tiny houses. Tiny house residents reflect their personal character and style, which is a significant aspect of this lifestyle. They decorate their houses according to their tastes, showcasing their personalities. This demonstrates the flexibility of tiny houses to embrace individuality and personal expression. Some residents adopt a minimalist approach to reflect their simplicity, while others personalize their houses with colorful and vibrant decorations. This indicates that tiny houses can be designed to reflect each individual's unique character.

The limited living space has profoundly changed the residents' consumption habits and perspectives on life. They now prioritize purchasing only functional and ergonomic items, avoiding unnecessary belongings. This shift contributes to more sustainable consumption habits. Additionally, multi-purpose items are preferred to maximize space efficiency. This change in perspective shows that tiny house living supports minimalist and sustainable lifestyles.

Tiny house residents actively participate in the design process of their houses, facing various challenges. These challenges include communication with manufacturers and optimizing space usage. Despite these difficulties, residents manage to customize their living spaces according to their needs and preferences. Prioritizing spacious common areas and effective storage solutions enhances the functionality of tiny houses. The customized design of kitchens and bedrooms according to personal needs demonstrates that tiny houses can be tailored to fit each resident's lifestyle.

Sustainability is a core aspect of the tiny house lifestyle. Residents embrace environmental sensitivity and sustainability principles by engaging in organic farming and using renewable energy sources. Minimal construction and a focus on recycling reflect their commitment to living in harmony with nature. These initiatives highlight the residents' dedication to sustainable living and show that the tiny house lifestyle supports environmental sustainability. Tiny house communities use various methods to provide necessary infrastructure services. Basic services such as water, electricity, and septic tank connections improve the quality of life and meet energy needs. These findings demonstrate that, with robust infrastructure, tiny house communities can offer a sustainable and comfortable living experience.

4.3.3 Interpretation of findings on daily life experiences in the tiny house communities. Living in tiny house communities is a decision that encompasses not only accommodation but also community and lifestyle preferences. This lifestyle facilitates social cohesion and fosters close relationships while also presenting certain practical challenges. Tiny house communities address various concerns, including the formation of social dynamics, governance and decision-making structures, security and privacy measures, access to healthcare, social interactions, shopping services, overcoming challenges, and implementing solutions, as well as the financial and practical aspects of maintenance.

The tiny house lifestyle positively affects the residents' social lives. Compared to urban living, social interactions in tiny house communities are stronger and more frequent. Residents build close-knit relationships with their neighbors and organize community activities to strengthen social bonds. This contributes to the enhancement of social dynamics within the community. Families with children also form closer ties with other families, increasing their children's social interactions.

Governance and decision-making processes in tiny house communities are shaped by resident participation. In community A, residents have fully taken over management and formed their own board of directors. Daily issues are resolved through voting in social communication application groups. Community B has a similar structure, with residents expected to take over management soon. In community C, residents, being yearly tenants, do not have authority in decision-making processes. These structures reflect the communities' self-management abilities and participatory governance approach.

Overall, security and privacy measures in tiny house communities are satisfactory. Residents feel safe due to security cameras and guards. However, some communities face security gaps and areas needing improvement. For instance, in community A, main roads are monitored 24/7, but garden privacy is maintained by not monitoring paths between plots. In community B, the inability to fence the land poses a security challenge. In community C, high security is ensured with security walls and 24/7 surveillance cameras.

Access to health, socialization, and shopping services is generally sufficient in tiny house communities. Community A is close to the center of Çatalca, providing easy

access to these services. Community B, located in a rural area, faces challenges in accessing healthcare services. Community C residents can order anything they need and have it delivered. This variability highlights the differences in service access depending on the community's location.

Living in a tiny house presents various challenges, which residents often overcome with creative solutions. For example, building a detachable veranda to withstand harsh winters and dealing with insects are some common issues. Despite these challenges, residents find ways to adapt and improve their living conditions, demonstrating the flexible and adaptive nature of tiny house living.

The costs and maintenance needs of tiny houses vary according to residents' experiences. While some residents find tiny house living to be cost-effective, others face continuous additional costs. Landscaping, veranda construction, and heating improvements are significant expenses. Grocery shopping costs have generally decreased. These findings indicate that tiny houses require ongoing maintenance and improvements beyond the initial purchase.

The daily routines of tiny house residents typically involve early bedtimes and early mornings. After morning walks and breakfast routines, residents engage in gardening and other activities. Gardening, while physically demanding, provides a sense of satisfaction. These routines illustrate that tiny house living promotes an active and healthy lifestyle, closely connected to nature.

4.3.4 Interpretation of findings on residents' general thoughts and recommendations. The popularity of tiny house communities is increasing, presenting an alternative lifestyle choice for many people. The experiences of individuals living in these communities demonstrate the pleasant nature and advantages of this lifestyle over traditional housing options. However, individuals unfamiliar with this way of living may have certain misconceptions about tiny house communities. Therefore, residents' insights and recommendations regarding the future expectations for similar communities were gathered.

Residents shared their experiences regarding the mobility and relocation of their tiny houses. Most residents in communities A and B stated that moving their tiny houses is not feasible due to the established nature of their houses and gardens. Community C offers the opportunity for residents to relocate to different plots owned

by the same company after a year of residence, although no current residents have plans to move. This reflects the stable and settled lifestyle promoted by tiny house living.

There are several common misconceptions about the tiny house lifestyle. One prevalent misconception is that tiny houses can be easily moved at any time. However, this is challenging due to the infrastructure and agricultural work involved. Another misconception is that tiny houses are too cold in winter and too hot in summer.

Residents address these misconceptions by sharing their real experiences. This highlights the importance of understanding the practical aspects of tiny house living. Residents emphasized the deep satisfaction they derive from their connection to nature. Being immersed in nature, growing their own fruits and vegetables, touching the soil, and leading a self-sufficient lifestyle are key elements that contribute to their happiness. This underscores the appeal of tiny house communities in providing a peaceful and self-sufficient way of life.

Residents offered valuable advice for those considering living in tiny house communities. They recommended experiencing the lifestyle by renting a tiny house for a few nights before making a purchase. It is crucial to have the house designed according to personal needs and expectations. Both partners in a couple need to agree on this lifestyle due to the sacrifices it requires. Residents emphasized the importance of basic maintenance skills, as professional services may be limited. Attention should be paid to the construction and design of the tiny house, with a focus on good insulation and infrastructure installations.

Residents believe that the trend of living in tiny houses will continue to grow. Factors such as the increasing feasibility of remote work, rising housing costs, and the anticipation of the Marmara earthquake are expected to drive this increase. They suggest that this growth can be managed through appropriate legislation. Additionally, the lack of support from the real estate market and the dissemination of inaccurate information discourages potential adopters of this lifestyle. Residents believe that finding middle ground and providing accurate information will facilitate controlled growth of tiny house communities. These insights highlight the potential for the tiny house lifestyle to become more widely accepted in the future and emphasize the need for informed and conscious decision-making.

Chapter 5

Conclusion

Tiny house communities have emerged as an alternative approach to housing, garnering significant attention in recent years. To delve deeper into the perspectives and experiences of those residing in these communities, interviews were conducted with individuals living in tiny house communities in Türkiye. The findings from these interviews raise several intriguing topics that warrant further discussion and exploration, particularly in the context of academic research.

The concept of tiny house living evokes a sense of nomadism, reminiscent of ancient migratory patterns. Residents' responses suggest that tiny houses can be perceived as temporary dwellings, facilitating short-term stays in diverse environments with varying natural conditions. This notion of transient living aligns with the ethos of minimalism and adaptability that underpins the tiny house movement.

It is important to note that, historically, people tend to live in a community even when they are immigrants. Migrant communities were often made up of families, relatives, or tribes, and operated together to benefit from advantages such as security, resource sharing, and solidarity. Therefore, there are similarities between tiny house communities and migrant communities, both of which can be described as social structures where people come together to form a common way of life and operate in solidarity. This parallel emphasizes people's quest for social relationships and solidarity in different periods, and shows that immigration actually supports the urge to live with the community.

The concept of tiny house community is deeply aligned with the principles of immigrant life, invoking the old immigrant lifestyle. Adopting the spirit of mobility and harmony, tiny houses provide an interpretation of modern minimalist life by facilitating temporary accommodation in various settings. This perception affects the design and use of these houses. Tiny houses often include modular designs, compact layouts, and lightweight materials, thus providing easy portability and installation in different locations. Moreover, the temporary nature of tiny houses promotes a closer connection with nature and a more conscious approach to consumption, which is reflected in resource use and sustainability. Tiny house communities also stand out as

places where individuals who adopt this lifestyle come together to share common spaces and live in solidarity. These communities enrich the experience of tiny house life and strengthen social ties by strengthening mutual support, shared resources and social ties. We can therefore add that tiny house communities also resemble immigrant communities. In this context, both migrant communities and tiny house communities can be described as living areas where people live in solidarity, mutual support, shared resources and strong social ties. This resemblance emphasizes that tiny house life is not only a housing option but also a social experience.

People use tiny houses as secondary housing in Türkiye to capture the charm of immigrant life. Staying in these tiny houses during the weekend holidays or a few days a week is considered a way to enter the modern immigrant lifestyle. Tiny houses are an ideal choice for short trips and escapes, offering a comfortable life even when you're on the move. This experience offers people the opportunity to move away from the monotony of urban life and to connect more closely with nature, but also to discover the benefits of a minimalist lifestyle. In this way, people both take advantage of short-term immigrant life and use tiny houses as secondary housing to strike a balance between traditional life and modernism.

The interviews revealed a recognition among tiny house residents that global developments, pandemics, earthquakes, increasing land prices, societal shifts are influencing housing choices and preferences. The rise of remote work and the increasing emphasis on sustainability are cited as key factors driving the appeal of tiny houses.

Global issues, such as the rise of remote work and greater emphasis on sustainability, can have a decisive impact on individuals' tiny house life preferences and choices. The trend to work remotely may cause people to prefer to live in smaller, more economical houses outside the city. Tiny houses can support a sustainable lifestyle due to their low costs and lower energy consumption. In addition, these tiny houses can be equipped with features such as sustainable building materials and energy efficiency, thereby promoting an environmentally friendly lifestyle. Thus, global trends can increase the tendency of individuals to prefer tiny house life and shape these preferences.

The frequency and impact of natural disasters, especially earthquakes, can also affect people's choices to live in tiny houses. Tiny houses can often be designed as

more sturdy and durable structures. Therefore, people living in earthquake-risk areas may prefer to live in smaller, more durable houses. Also, since tiny houses are generally easy to move, they can be evacuated more quickly and safely in case of emergencies or natural disasters. For these reasons, individuals in earthquake-risk areas can choose tiny house life and combine these preferences with environmental and economic benefits.

Global health crises, like pandemics, can also affect people's lifestyle and housing preferences. The 2020 coronavirus pandemic has caused many people to spend more time at the house and change their working habits. With the spread of applications such as remote work and digital meetings, people may prefer to move away from big cities and live in smaller, more economical tiny houses that take up less space. Houses like these can help maintain social distancing even during pandemics, allowing them to live intimately with nature away from city centers. Moreover, living in smaller and more economical houses can reduce costs and provide a more stable housing solution in times of financial uncertainty. So, crises like pandemics can increase individuals' tendencies to prefer tiny house life and shape those preferences.

The escalating cost of land has emerged as a significant motivator for exploring alternative housing options. Tiny houses, with their reduced footprint and lower construction costs, offer a compelling solution for those seeking affordable and accessible housing. Tiny house communities have the potential to provide sustainable living and affordable housing options both in urban and rural areas. Integrating these communities effectively into urban and rural planning processes requires careful consideration of several key strategies.

Firstly, land use and planning strategies should identify suitable areas for tiny house communities, taking into account factors such as access to natural resources, environmental impact, and quality of life.

Secondly, ensuring adequate infrastructure and services, including water, electricity, sanitation, and waste management, is crucial for the viability of these communities. Collaboration and participation of local communities in the planning process are essential to understanding their needs and preferences, fostering a sense of ownership and creating more sustainable communities.

Furthermore, adherence to environmental and social sustainability principles, such as preserving green spaces and providing access to public transportation and

community centers, is paramount. Financial support and incentives, such as low-interest loans, tax benefits, and grant programs, can encourage investment in these communities.

Lastly, promoting diversity and accessibility by offering a range of housing types, price ranges, and accessibility features ensures inclusivity and broadens the reach of these communities.

Through the implementation of these strategies, tiny house communities can be effectively integrated into urban and rural planning, contributing to the development of sustainable and affordable housing options.

Residents expressed concerns regarding the adequacy of current regulations governing tiny house communities. They highlighted the need for comprehensive and well-defined frameworks that address safety standards, zoning restrictions, and infrastructure requirements. Tiny house communities may encounter specific legislative gaps and challenges, which are often not the attention of official institutions but are vital. These communities are often made up of people living in small groups in rural or urban areas and may face specific challenges in matters such as local regulations, tax policies, and access to resources.

The first challenge is that existing local regulations do not recognize or fit tiny house communities. Often, existing arrangements are targeted at traditional housing and may be inadequate to meet the needs of tiny houses or alternative forms of housing. This could create problems in matters such as building permits, land use, infrastructure requirements, and water/electric connections.

A second challenge is that tax policies do not support small hosts. Although tiny houses are often less expensive than traditional housing, their tax obligations may be similar. This could put a financial strain on tiny house residents and discourage those who prefer this alternative lifestyle.

A third challenge is the restrictions on access to resources. Tiny house residents often have difficulties in accessing basic services such as water, electricity, and waste management. This may be more pronounced, for communities living in rural areas, and may adversely affect the quality of life.

Comprehensive and sensitive frameworks can be developed to address these challenges. Special arrangements can be created for tiny house communities. These arrangements can provide a suitable framework for tiny house residents by defining

construction standards, land use and infrastructure requirements. Changes to tax policies can be made to support tiny houses. Incentives such as tax cuts or exemptions can reduce the financial burden of tiny houses and make this lifestyle more accessible. Special infrastructure development programs can be established to give tiny house communities access to basic services such as water, electricity and waste management. These programs can be implemented in cooperation with local governments, civil society organizations and the private sector. Educational and awareness-raising campaigns aimed at tiny house communities can raise awareness about the advantages and challenges of this lifestyle. Platforms could also be created to encourage cooperation among local communities and to share resources.

These frameworks can improve the quality of life of tiny house communities, promote sustainability, and increase interest in alternative forms of housing. However, the establishment and implementation of these frameworks require the collaboration of local governments, civil society organizations and communities.

The interviews captured the underlying anxieties felt by some tiny house communities, particularly regarding the potential for community dissolution or relocation. These concerns underscore the importance of fostering a sense of cohesion and resilience within these communities. Several strategies can be followed to develop a sense of harmony and resilience in tiny house communities and to reduce concerns about the disintegration or relocation of the community.

First of all, it's important to focus on communication and empathy. Through regular communication among community members, they can develop their skills to understand each other and respect their emotional needs. This creates a better basis for resolving conflicts and increases the sense of confidence within the community.

Secondly, it is important to set common goals and work together. Community members can gather around common goals, reinforcing a sense of commitment to each other. These can be practical projects, such as gardening, or activities that promote solidarity and solidarity within the community.

Thirdly, it is important to encourage participation in decision-making processes. Creating an environment in which everyone's opinions are valued and everybody's voice is heard makes community members feel better. This strengthens ties within the community and ensures that everyone stands behind common decisions.

Fourthly, it is important to be prepared for crisis situations. Tiny house communities should develop emergency plans and conduct regular exercises to deal with unexpected events, such as natural disasters. This improves the ability of community members to act together and support each other in crisis situations.

Finally, it is important to maintain connections with the outside world. Members of the community should not have isolated relations with the outside world. This encourages innovation and diversity within the community and enables the community to receive external assistance.

Implementing these strategies can develop a sense of harmony and resilience in tiny house communities while reducing concerns about disintegration or relocation of the community. However, each community is different, so it is important to consider the needs and dynamics of community members to identify the most effective strategies.

A recurring observation was the perception of tiny houses as primarily secondary dwellings rather than primary residences in Türkiye. This perception warrants further investigation to understand the underlying socio-economic and cultural factors that contribute to this categorization. Urbanization and population growth are among the key socio-economic and cultural factors contributing to the perception of tiny houses as secondary housing in Türkiye. The density of the population in large cities and increasing migration are increasing the demand for tiny houses. In addition, the level of income is a decisive factor in choosing tiny houses as secondary housing. Tiny houses, which are more accessible to middle and lower-income groups, are often preferred as secondary housing, while higher-income groups tend to prefer larger housing. Cultural preferences also shape this perception; tiny houses, especially in coastal areas, are preferred as summer or holiday houses. There are various approaches to changing these perceptions and adopting tiny houses as primary housing. The revision of pricing policies, the development of infrastructure, the organization of educational and information campaigns, and the review of planning policies can encourage the adoption of tiny houses as primary housing. With the implementation of these steps, tiny houses can be regarded not only as secondary housing but also as permanent dwellings.

REFERENCES

- Abdel, H., & Harrouk, C. (2021, MArch 31). *Evolution of the House Plan in Europe: from the Industrial Revolution to the Interwar Period*. Retrieved from Archdaily: <https://www.archdaily.com/959373/evolution-of-the-house-plan-in-europe-from-the-industrial-revolution-to-the-interwar-period>
- Alhaddi, H. (2015). Triple Bottom Line and Sustainability: A Literature Review. *Business and Management studies*, 1(2), 6-10.
- AL-Mohannadi, A., & Furlan, R. (2019, 08 30). Globalization and urban transformation of nomadic societies: The tent as a national symbol and element of Qatari identity. *Saudi Journal of Engineering and Technology*, 4(8), 320-332. doi:10.21276/sjeat.2019.4.8.7
- Apaydın, F. (2011, October 10). Effectiveness of Prefabricated House Industry's Marketing Activities. *Asian Social Science*, 7(10), 267-276. doi:doi:10.5539/ass.v7n10p267
- Beck, A. (2019). What Is Co-Housing? Developing a Conceptual Framework from the Studies of Danish Intergenerational Co-Housing. *Housing Theory and Society*, 37(2), 1-25. doi:10.1080/14036096.2019.1633398
- Cardno, C. (2020). *Nomads of the future*. Retrieved from American Society of Civil Engineers: <https://www.asce.org/publications-and-news/civil-engineering-source/civil-engineering-magazine/issues/magazine-issue/article/2020/11/nomads-of-the-future/>
- Castro, F. (2017). °C (Do-C) Ebisu / Schemata Architects. Retrieved from Archdaily: <https://www.archdaily.com/888022/do-c-ebisu-schemata-architects>
- Childe, V. (1930). Operations at Skara Brae during 1929. *Proceedings of the Society of Antiquaries of Scotland*, 64, 158-191. doi:10.9750/PSAS.064.158.191
- Childe, V. (1931). Skara Brae: a 'Stone Age' Village in Orkney. *Antiquity*, 5(17), 47-59. doi:10.1017/s0003598x00005597
- Chudik, M. (2021). *Ecocapsule, Bratislava, Slovakia*. Retrieved from Architonik: <https://www.architonic.com/en/project/nice-architects-ecocapsule/5106120>
- Coch, H. (1998). Chapter 3: Bioclimatism in vernacular. *Renewable and Sustainable Energy Reviews*, 2(1-2), 67-87. doi:10.1016/s1364-0321(98)00012-4

- Craft, K. (2021). *Chandler tiny home village*. Retrieved 2022, from Lehrer Architects LA: <https://www.lehrerarchitects.com/project/chandler-tiny-homes>
- Cromley, E. (2008). Cultural embeddedness in vernacular architecture. *Building Research & Information*, 36(3), 301-304. doi:10.1080/09613210801902995
- Culture, I. (2019, September 20). *Joglo and Limasan: The Art of Javanese Housing*. Retrieved from Indosphere Medium: <https://indosphere.medium.com/joglo-and-limasan-the-art-of-javanese-housing-9d11e0a111af>
- Curl, J. S. (2006). *A dictionary of architecture and landscape architecture*. Oxford University Press. doi:10.1093/acref/9780198606789.001.0001
- Davies, C. (2005). *The prefabricated home*. Reaktion books.
- Derringer, J. (2010). *The Manifesto House in Chile by James & Mau and Infiniski*. Retrieved from Design Milk: <https://design-milk.com/the-manifesto-house-in-chile-by-james-mau-and-infiniski/>
- Dobrinskaya, D. (2016). *Nomadic lifestyle in the network society: sociological aspect*.
- Drew, P. (1980). *Tensile architecture*. New York: Routledge.
- Dyson-Hudson, R., & Dyson-Hudson, N. (1980). Nomadic pastoralism. *Annual Review of Anthropology* 9, 15-61.
- Fehr, M. (2001). *STRUCTURES FOR REFLECTION Allan Wexler's "Crate House"*. Retrieved from Keom: https://www.keom02.de/KEOM%202001/kuenstler/texte/wexler_crate_e.html
- Fisher-Gewirtzman, D. (2017). The impact of alternative interior configurations on the perceived density of micro apartments. *Journal of Architectural and Planning Research*, 336-358.
- Garin, N. (1991). *Design for the environment of far north: The principle of borrowing from*. Moscow: Stroganov Moscow State University of Arts and Industry.
- Google. (2024, April). Google Maps satelline image of tiny house community A. Retrieved April 2024, from <https://maps.app.goo.gl/2KchrifNcEij4wTd6>
- Google. (2024, April). Google Maps satelline image of tiny house community A.
- Google. (2024, April). Google Maps satelline image of tiny house community B. Retrieved April 2024, from <https://maps.app.goo.gl/UVWsUt31Eehg2a1W6>
- Google. (2024, April). Google Maps satelline image of tiny house community C. Retrieved April 2024, from <https://maps.app.goo.gl/nMBuYro4y9z15xwd8>

- Grabowski, M. (2019). 10.1088/1757-899X/471/8/082046. *IOP Conference Series: Materials Science and Engineering*, 471. doi:10.1088/1757-899X/471/8/082046
- Heim-Sowinska, J. (2012). The identity of a city. Modern conversion of Karol Scheibler's post-industrial " empire " in Lodz. *Proceedings of the In Advanced Research in Scientific Areas*, 3-7.
- Hughes, J. (2011). *On the origins of tepees: the evolution of ideas (and ourselves)*. Simon and Schuster.
- Islam, H., Zhang, G., Setunge, S., & Bhuiyan, M. (2016). Life cycle assessment of shipping container home: a sustainable construction. *Energy and Buildings*, 128, 673-685. doi:doi:10.1016/j.enbuild.2016.07
- Jain, R. (2013). A study on eco friendly cost effective earthbag house construction. *Research Journal of Chemical and Environmental Sciences*, 1(5), 1-11.
- Jamaludin, A., Ilham, Z., Wan, A.-M., Halim-Lim, S., & Hussein, H. (2021). Comfortable Liveable Space: Shipping Container and Bamboo as Sustainable Building Materials in Equatorial Climate Perspective? *International Journal of Built Environment and Sustainability*, 8(2), 11-22. doi:10.11113/ijbes.v8.n2.728
- Jason, J. (2022, April 15). *How Lehrer Architects are dealing with homelessness in Los Angeles*. Retrieved 2023, from Archdaily: <https://www.archdaily.com/980255/how-lehrer-architects-are-dealing-with-homelessness-in-los-angeles>
- Kabata-Pendias, A., & Szteke, B. (2015). *Trace elements in abiotic and biotic environments*. Taylor & Francis.
- Kemery, B. (2006). *Yurts: Living in the round*. Gibbs Smith.
- Kenyon, K. (1954). Ancient Jericho. *Scientific American* 190, no. 4, 76-83. Retrieved from <http://www.jstor.org/stable/24944526>.
- Kenyon, K. (1956). Jericho and its Setting in Near Eastern History. *Antiquity*, 30(120), 184-197. doi:doi.org/10.1017/S0003598X00026818
- Kiemet, P. (2016). *KODA / Kodasema*. Retrieved from Archdaily: <https://www.archdaily.com/790996/koda-kodasema>
- King, A. (2016, July 14). *KODA House*. Retrieved from Architect Magazine: https://www.architectmagazine.com/project-gallery/koda-house_o

- Kolson Hurley, A., & Volner, I. (2017, April 10). *Carmel Place*. Retrieved from Architect Magazine: https://www.architectmagazine.com/project-gallery/carmel-place_o
- Kuijt, I. (2000). People and space in early agricultural villages: Exploring daily lives, community size and architecture in the late pre-pottery neolithic. *Journal of Anthropological Archaeology*, 19, 75-102. doi:10.1006/jaar.1999.0352
- Lantrop, T. (2021, February). Lake Dallas Tiny Home Village Tour by Indigo River Tiny HomesLake Dallas Tiny Home Village Tour by Indigo River Tiny Homes. (P. Huggler, Interviewer) Retrieved January 2023, from <https://www.youtube.com/watch?v=Mvk3WdfW9-I>
- Lantrop, T. (2022, January). Groundbreaking URBAN Tiny House Community -DFW Metro Tiny Home Village. (T. H. Expedition, Interviewer) Retrieved January 2023, from https://www.youtube.com/watch?v=qzkemX_L1vM&t=3s
- Lovland, J. (2007). A history of steam power. *Department of Chemical Engineering, NTNU Trondheim*.
- LOVT. (2022). Retrieved 2023, from LOVT MODULHAUS: <https://www.lovt.de/modulhaus-kaufen>
- Mahajan, B. (2019). *Grasscrete: Types and Cost*. Retrieved January 2023, from Civiconcepts: <https://civiconcepts.com/blog/grasscrete>
- Mangold, S., & Zschau, T. (2019). In search of the “Good Life”: The appeal of the tiny house lifestyle in the USA. *Social Science*, 8(1), 26.
- Oliver, P. (2006). *Built to meet needs: Cultural issues in vernacular architecture*. Routledge.
- Pangere, N. (2022, 11 8). *Jericho*. Retrieved 10 3, 2023, from Nomadic Niko, explore a little more: <https://nomadicniko.com/2022/11/08/jericho/>
- Pangere, N. (2022, November 8). *Jericho*. Retrieved 10 3, 2023, from Nomadic Niko, Explore a Little More: <https://nomadicniko.com/2022/11/08/jericho/>
- Patai, R. (1951). Nomadism: Middle Eastern and Central Asian. *Southwestern Journal of Anthropology*, 7(4), 401-404.
- Patino, E., & Siegel, J. (2018). Indoor environmental quality in social housing: A literature review. *Building and Environment*, 131, 231-241. doi: 10.1016/j.buildenv.2018.01.013.

- Patowary, K. (2017, July 28). *The Birmingham Back to Backs*. Retrieved from Amusing Planet: <https://www.amusingplanet.com/2017/07/the-birmingham-back-to-backs.html>
- Renfrew, C. (1972). Malta and the calibrated radiocarbon chronology. *Antiquity*, 46(182), 141-144. doi:10.1017/s0003598x00053400
- Resmî Gazete 18195. (1983, 10 13). Karayolları Trafik Kanunu. Retrieved 2024
- Resmî Gazete Sayısı: 30791. (2024, January 18). Turizm Tesislerinin Niteliklerine İlişkin Yönetmelik. Retrieved January 2024
- Salman, M. (2018). Sustainability and vernacular architecture: Rethinking what identity is. In *Urban and Architectural Heritage Conservation within Sustainability*. doi:10.5772/intechopen.82025
- Sanders, S., & Sanders, P. (2022). *Das Village Mehlmeisel*. Retrieved 2023, from Das Village: <https://www.dasvillage.de/>
- Sanders, S., & Sanders, P. (2022). *Tiny House Village Hüttstadl*. Retrieved 2023, from Tiny House Village: <https://www.tinyhousevillage.de/thv-huettstadl>
- Sanders, S., & Sanders, P. (2022). *Tiny House Village-Mehlmeisel*. Retrieved December 2023, from Tiny House Village: <https://www.tinyhousevillage.de/thv-mehlmeisel>
- Šenk, P. (2017). *Capsules: Typology of Other Architecture*. London: Routledge. doi:<https://doi.org/10.4324/9781315272177>
- Simpson, I., Guttman, E., Cluett, J., & Shepherd, A. (2006). Characterizing anthropic sediments in north european neolithic settlements: An assessment from Skara Brae, Orkney. *Geoarchaeology*, 21(3), 221-235. doi:10.1002/gea.20101
- Slaper Tim. (2011). The Triple Bottom Line: What is it and how does it work. *Indiana business review*, 86(1), 4-8.
- Slaper, T. (2011). The Triple Bottom Line: What is it and how does it work. *Indiana University Bloomington*, 86(1), 4-8.
- Staff, F. E. (2023). *Timeline of Ag Equipment 'Firsts'*. Retrieved from Farm Equipment: <https://www.farm-equipment.com/articles/4269-timeline-of-ag-equipment-firsts>
- Stephens, A. (2022, February 2). *Groundbreaking Urban Tiny House Community*. Retrieved January 2023, from Tiny House Expedition:

- <https://tinyhouseexpedition.com/groundbreaking-urban-tiny-house-community/>
- Stewart, J. (2019, July 7). *Massive Ancient Underground City Once Housed 20,000 People*. Retrieved November 4, 2022, from My Modern Met: <https://mymodernmet.com/derinkuyu-underground-city/2/>
- Susanka, S. (1998). The not so big house.
- Tavares, V., Lacerda, N., & Freire, F. (2019). Embodied energy and greenhouse gas emissions analysis of a. *Journal of Cleaner Production*, 212, 1044-1053. doi:doi:10.1016/j.jclepro.2018.12.02
- Thoreau, H. (2006). *Walden*. Yale Univeresity Press.
- Tiny Roof Paradise. (2022, 2024 April). Retrieved from Tiny Roof: <https://tinyroof.com.tr/tinyroof-paradise-2/>
- Trambley, L. (2020). The assordable housing crisis: Tiny homes & single-family zoning. *Hastings LJ*, 72, 919.
- Trump, D. (1961). Skorba, Malta and the Mediterranean. *Antiquity*, 35(140), 300-313. doi:10.1017/S0003598X00036371
- Trump, D. (1966). *Excavations carried out on behalf of the National Museum of Malta 1961-1963*. Society of Antiquaries of London.
- Tumurjav, M. (2003). *Traditional animal husbandry techniques practiced by Mongolian nomadic people*. Routledge.
- Tyman, D. J. (n.d.). *Nomadic Lifestyles: Shelter and Hospitality*. Retrieved 06 22, 2023, from John Tyman: <https://www.johntyman.com/sahara/20.html>
- Usenyuk, S., Dudeck, S., & Garin, N. (2015, June 17). The making of a home in a changing northern context: an ethnographic account of contemporary housing practices among Russian reindeer nomads. *The Polar Journal*, 5(1), 170-202. doi:10.1080/2154896X.2015.1038059
- Walden, H. (1845). *Walden*.
- Wang, Y., Wang, L., Long, E., & Deng, S. (2016). An experimental study on the indoor thermal. *Energy and Buildings*, 127, 529-539. doi:doi:10.1016/j.enbuild.2016.05
- Westrich, K. (2017, September 29). *The Race to Keep Up with Technology: Across Industrial Revolutions*. Retrieved from KnowledgeWorks: <https://knowledgeworks.org/resources/farming-industrial-revolutions/>

- Wexler, A. (2017, November). *Absurd Thinking-Between Art and Design* . Lars Miller Publishers. Retrieved from Rethinking Domesticity: <https://rethinkingdomesticity.wordpress.com/2013/11/>
- White, A. (2022, December 12). *Scotland's Pompeii: The Mystifying Story of Skara Brae*. Retrieved July 03, 2023, from Love Exploring: <https://www.loveexploring.com/gallerylist/158953/scotlands-pompeii-the-mystifying-story-of-skara-brae>
- Wilde, R. (2019, July 25). *Steam in the Industrial Revolution*. Retrieved from ThoughtCo: <https://www.thoughtco.com/steam-in-the-industrial-revolution-1221643>
- Yurts and Nomads*. (n.d.). Retrieved 06 26, 2023, from Original Yurt: <https://originalyurts.com/about-yurts/yurts-and-nomads/>
- Zhai, Z., & Previtali, J. (2010). Ancient vernacular architecture: Characteristics categorization and energy. *Energy and Buildings*, 42(3), 357-365. doi:10.1016/j.enbuild.2009.10.002
- URL-1 (<https://www.johntyman.com/sahara/20.html>), accessed on June 22, 2023.
- URL-2 (<https://originalyurts.com/about-yurts/yurts-and-nomads/>), accessed on June 26, 2022).
- URL-3 (<https://collections.artsmia.org/art/3614/blackfoot-tipis-edward-s-curtis>), accessed on July, 03.
- URL-4 (https://www.chebucto.ns.ca/Culture/Shifting_Boundaries/kibitki.html), accessed on June 26, 2023)
- URL-5 (https://www.chebucto.ns.ca/Culture/Shifting_Boundaries/kibitki.html), accessed on June 26, 2023)
- URL-6 (<https://www.spottinghistory.com/view/5547/skorba-temples/>), accessed on July, 05, 2023.
- URL-7 (<https://www.tumbleweedhouses.com/tumbleweed-models/elm/>), accessed on December, 2023)
- URL-8 (<https://hopethemission.org/our-programs/tiny-homes/chandler/>), accessed on February 2023)

