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Housing Conditions and Problems of Seasonal Agricultural Workers in Eskişehir Sarıcakaya Settlement, and Suggestions

Emine Dilay Güney[1], Fatma Kolsal [2]

[1] Prof. Dr., Faculty of Fine Arts, Design and Architecture, Ayvansaray University, Istanbul, Turkey. Email: dilayguney@ayvansaray.edu.tr

[2] Res. Assist., Faculty of Architecture and Design, Eskişehir Technical University, Eskişehir, Turkey. (Principal contact for editorial correspondence), Email: fatmakolsal@eskisehir.edu.tr

Abstract

Purpose

The purpose of this research is to determine the seasonal agricultural workers' housing problems in Laçin Village in Eskişehir and to reveal the solvability of these problems through an architectural design studio.

Design/Methodology/Approach

The research includes two methodological sections. The first section consists of a review of the relevant literature to investigate the historical, legal, administrative and architectural issues on the housing problems of the seasonal agricultural workers. The second phase is based on a case study and a design studio process depending on that case study. The research was conducted in Laçin, to identify the characteristics of the housing problem in place. The data was obtained by observing, measuring, drawing, and photographing the existing housing. A survey was prepared and applied to the workers to gather data about the duration and the character of their stay.

Findings

It was determined that the seasonal agricultural workers in Laçin had some interrelated social, economic, and spatial problems. The duration of the stay excessing 6 months is found to be the main determinant of the life. In the light of these data, the type of housing of seasonal agricultural workers in Laçin was defined as a "new" typology. It is discovered to be neither temporary, nor permanent housing. It is found to be "semi-temporary housing". In the research-based design process, the prominent design concepts for the "semi-temporary housing" type were identified from the local parameters and the existing user preferences. They are set as convenience, flexibility, sustainability, and being low-cost.

Research Limitations/Implications

The scope of the study is the sheltering problem of seasonal agricultural workers in Turkey. Therefore, it needs specifically to be determined and identified within local parameters.

Social/Practical Implications

The study makes an existing problem visible through fieldwork and reveals that a social change can be provided by developing a physical design proposal.

Originality/Value

The fieldwork and design studios are important sources of original knowledge production. The information generated in the field belongs to the place, and this data is articulated and adopted for the nine different design solutions.

Keywords: *Flexible design, semi-temporary housing, seasonal housing, minimum space, sustainable design*

INTRODUCTION

The main subjects of this study are seasonal agricultural workers and their housing problems. The temporariness and the accommodative problems of the workers are the concepts, which can be discussed in various ways separately; yet these two concepts converge in seasonal agricultural work.

In the historical process, the "housing for workers" is firstly encountered as a typology in Egyptian civilization. The ancient city of Kahun (1991-1786 BC), near Giza, and the workers' residences in the city of Amarna are considered as the first examples of the settlements of housing for workers (1991-1786 BC). The Egyptian city of Dar-el Medina (1400 BC) takes its place exclusively in the history for being a settlement inhabited only by the artisan class (Smith, 1958). During the Roman Empire, "insula", the typology of high-rise and rental housing, was born for the first time. This type of housing serves the mobile working class of the period. The "insula" can still be seen in the city of Ostia, which connects Rome to the Mediterranean. The emergence of the working class as a social layer is after the Industrial Revolution. As modern immigrants, this new class also brought the housing problem to the city and changed the appearance of the cities. Between the beginning of the 19th century and early 20th century, the main topic of architectural history had almost become the history of workers' houses (Mumford, 1961; Benevolo, 1993). Tents, a type of shelter in traditional nomadic communities, resolved the temporariness of the shelter. Today, temporary housing comprises various subject groups. These groups may be voluntarily or compulsorily nomadic subjects. The mandatory nomadism in cities includes those who lose their homes after a disaster, the homeless and refugees; while the voluntary nomadic people can be defined as the "urban nomad" demanding the freedom of movement and the right to use the city's public spaces. These groups are groups that have temporarily left leave their dwellings or houses temporarily. However, it is essential that the definition of temporariness should be re-done when it comes to seasonal agricultural workers. Seasonal agricultural workers are employed in agriculture in multiple workplaces during various periods. There are also seasonal agricultural workers who live regularly in the same farming area for six months or more. Nearly all of the workers in the Laçin quarter of Saricakaya District of Eskişehir are working in the same area for more than six months on a regular basis. Therefore, it would not be proper to call their stay as temporary accommodation. In this study, it is proposed to redefine the lifestyles and housing types of the seasonal workers, who regularly spend the same period and half of the year outside their local housing. This way of life should be defined as "semi-temporary" or "semi-permanent" way of life, while the type of housing of this way of life should be defined as "semi-temporary housing". The problem can be studied after this conceptual separation.

"Semi-temporary housing" corresponds to a type of nomadism called "trans-humanism" in the Mediterranean climate and associates with the

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act of migrating to the summer plateau in the Black Sea region. In these migration movements based on animal husbandry, we see a tent or Highland House as a shelter typology. Mediterranean semi-migrants are in a constant migration movement to find suitable pastures and live in temporary, quickly installed, portable housing tents. Although the Black Sea Highland migration and the Mediterranean Highland migration are not economically based entirely on livestock, the types of the shelter of migrants are permanent shelters. However, seasonal agricultural workers differ from other migrants in terms of working hours, and these workers work under the patronage of an employer within a certain working time. Although the housing units are tents that are structures of temporariness, the six-months accommodation makes reference starts to evoke concepts about permanence. For this reason, although the settlements of seasonal agricultural workers are in the "semi-temporary" settlement feature as described above, workers whose settlement is long-term, together with their families, are trying to live in the venues of temporariness.

In this study, the problems related to seasonal agricultural workers and the place in Laçin mentioned above were treated as a research and design problem by being considered as a form of “semi-temporary housing”.

General information on seasonal agricultural workers from national and international sources is given to describe the conceptual framework. The local information is discussed through the field research and design studio productions. In the light of this information, the topicality, validity, and research potentials of the discussion are revealed.

LITERATURE REVIEW

International Studies on Seasonal Agricultural Workers

Legal measures on the working and living conditions of seasonal agricultural workers, a topic that has been debated in America since half of the 20th century, have been brought up at various periods. Immigration rights for agricultural labourers from different countries have also been discussed at the same time. The Farm Labour Contractor Registration Act of 1963 and the Migrant and Seasonal Agricultural Worker Protection Act (MSPA) of 1983 are the most important of these (Culp & Umbarger, 2004).

Similar regulations have been introduced in New Zealand since 2007, and the Recognised Seasonal Employer (RSE) program has been successful. The program has been an example for countries such as Australia, both in terms of improving the legal and physical conditions of seasonal agricultural workers and in terms of increasing agricultural production (Maclellan, 2008).

However, the issue is not just about bringing about legal arrangements; it is also about implementing the applications. Many laws enacted in Europe and the United States are primarily focused on job security and social rights. The measures concerning the living and housing conditions of the employees are generally left to the preferences of the employer. In

agricultural production, where economic competition is intense and wages are low, employers' thoughts about housing employees may remain secondary. An example of this is the agricultural breakthrough that led to the economic development of California through the process of workers labouring in heavy and savage conditions (Mitchell, 1996; Gertel&Sippel, 2014). Another issue that needs to be underlined is the seasonal agricultural labour and its association with the migration phenomenon.

One of the countries where seasonal agricultural labour is experienced intensively is India. Every year, an increasing number of women, men, and children make migrations migrate within India for agricultural labour to make their living (Rogarly, 1998).

In the face of this global problem, have there been efforts made to accommodate seasonal agricultural workers?

According to a study in Minnesota, 20,000 workers migrate to work in agriculture each year and are subject to temporary housing conditions. At this point, the Migrant and Seasonal Agricultural Worker Protection Act of 1983 provides the legal framework for housing. The necessary funds for the establishment of housing conditions are provided by this law. The Minnesota case includes field research and survey assessment, as in this study, in terms of methods for determining housing conditions. The survey asked participants about their origins, the length of time they stayed in Minnesota for agricultural labour, the number of children in the family (Ziebart, 2006).

A field study and a questionnaire were primarily conducted similarly to the study on sheltering seasonal agricultural workers in Virginia, too. In the current situation, workers often talk about the lack of electricity and water infrastructure and stress that structural elements pose problems (Koebel&Daniels, 1997). Another important study concentrates on the housing problems of the seasonal agricultural workers and the housing characteristics of farmworker families in North Carolina (Thomas, 2006). This research compares the family structures, duration of the stay and the housing conditions by utilizing surveys and interviews and describes the existing situation of housing conditions. Recently, North Carolina is studied for its migrant workers with a particular emphasis on their housing problems as well. In their research Vallejos et al. (2011) applied surveys in between 2007 and 2008 on random families showing the common substandard conditions in migrant housing. According to the study, all camps had at least one exterior housing problem; 93% had at least one interior problem. Housing conditions worsen across the agricultural season (Vallejos et al, 2011).

It is seen that there are many studies that discuss the housing problem of the seasonal workers legally, as well as socially and architecturally. However, there is a common point for all these studies, that there are no visual, spatial or architectural determination for the existing settlements. In a research to understand the housing conditions and the problems of the seasonal workers and then to suggest new ideas for their living, it is a

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very crucial point to define and present the existing patterns visually. Therefore, even though there are many similarities in methodological manner and in gathering data and analysing them; this paper differs in presenting the visual documentation and the architectural drawings of the existing housing patterns. This gives us opportunities to read either the cultural and daily life tendencies related to the spatial preferences of the users. Furthermore, in this article, unlike other studies, after the existing situation is analysed, a response is developed through a design proposal. These spatial solutions, and design proposals are shaped contextually by data obtained from the field.

Definition and General Problems of Seasonal Agricultural Labour in Turkey

The problem of "Seasonal Agricultural Worker" is a social phenomenon that has increased in recent years and is waiting for a solution in Turkey. This phenomenon has been the subject of various researches on a global scale and in our country. According to data from the Ministry of Labour and Social Security, it is estimated that seasonal mobile agricultural workers, around 300,000, cover a population of at least one million, with de facto informants and children (MIGA, 2012). According to TUIK data of March 2018, 17.7% of those employed in Turkey work in the agricultural sector. However, this data does not reflect the exact number due to the fact that temporarily employed seasonal agricultural workers are not registered, making seasonal agricultural workers invisible. Despite the recognition of its global presence, it has been described as a problem in our country on a local scale, but operational improvements have remained in small number. This remains as an unresolved problem between the worker and the employer. TUIK describes seasonal agricultural workers among "Those Who Are Not Included in the Workforce" in the "General Description of Household Labour Research". In other words, they can be defined as unemployed. who are identified. The descriptions of employees who are not involved in the workforce are as follows.

"Those who are not involved in the workforce: The working population who are not unemployed or who are in non-institutional employment. Those who are not included in the workforce are divided into the following groups.

1. Those who are not looking for work but are ready to work: People who do not seek a job for a variety of reasons, but who indicate that they are ready to start work within 2 weeks. They are covered in two sub-titles:

Those who have no hope of finding a job: They are those who are not looking for a job before or who do not believe that they can find a job that is suitable for their own qualifications, but who are ready to take up a job.

Other: They are who do not seek a job for reasons such as being seasonal worker, being a housewife, being a student, having an income, retirement, and being unable to work, but who state that they are ready to start work.

2. Seasonal workers: These are the people who are not looking for a job and are not ready to start work in any permanent job due to their seasonal work."

Selek and Bulut (2013) state that the definition of seasonal agricultural workers can be made only after defining the words seasonal and agricultural workers separately. Here we should understand that the "seasonal" means the temporary period of time of the year, which is separated according to a certain quality, not in the known sense. In the agricultural context, the word seasonal defines a range that lasts from March to early October, covering pre-harvest and harvest season. If the concepts of seasonal workplaces and seasonal work and seasonal workers are examined, workplaces that operate only in one period of the year and stop their activities at other times can be defined as "seasonal workplaces" (Taşkent, 2010). The characteristic that distinguishes the seasonal agricultural worker from the agricultural worker is that they move to the seasonal workplace or workplaces by migrating from where they live in the defined time frame. In response to the question of whether seasonal agricultural labour is temporary work, Okur (2008) answers it by describing temporality as follows: "although it means a work that is repeated every year in a workplace; a temporary work is not regularly repeated every year in a workplace, it is a work that is applied when needed, sometimes ending in a few days, sometimes ending after continuing for months". In this case, the seasonal agricultural worker is an agricultural worker who works in a seasonal workplace (only 1 or 2 years in this workplace) in a semi-regular period of time, which is not temporary but may not be permanent. Seasonal work can be long or short, depending on the natural conditions. According to Şakar (2010); it should be accepted that a period in seasonal work can be a maximum of six months. So if a work takes 9 or 10 months a year, there can be no mention of seasonal work or workers. In such a case, either the contract has a specific duration or there is intermittent work.

Seasonal workers are the employees who live half of the year by working and sheltering as temporary or both temporary and itinerant. The most basic feature distinguishing from the other employee definition is that they do not have formal visibility. They have houses in a fixed location but they do not use them for half of the year. In the other half of the year, as well as those who reside like travellers, there may be employees working only in a particular seasonal workplace. Common characteristics of employees in a particular location or multi-seasonal workplaces are that their housing is provided by temporary accommodation units. The characteristics of mobility and semi-impermanence cause them to be out of economical registrations. According to Çınar and Lordoğlu (2011), temporary agricultural labour is among the main elements of an informal economy. Here, seasonal job descriptions should also be considered with the phenomenon of migration. Migration in seasonal agricultural labour occurs as a mechanism that allows the space organization to adapt to the demands of the system by redistributing the labour force in a way that

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makes production in space more effective (Tekeli, 1998). Based on this definition, seasonal labour migration in rural areas can also be considered as a result of re-distributing the labour force and meeting the labour demand that occurs in a period in agriculture (Çınar, 2014).

In terms of seasonal agricultural work, it is stated in the clause (b) of the 4th article of the Labour Law dated 2003 and numbered 4857 that the Labour Law will not be applied in the workplaces or enterprises where less than 50 workers are employed (including 50). Therefore, workplaces employing 51 or more agricultural workers are covered by the Labour Code. Workers in agricultural establishments employing 50 or fewer workers are subject to the Code of Obligations (Selek&Bulut,2013).

Studies on Seasonal Agricultural Workers in Turkey

There are few civil initiatives on this issue. One of the working groups operating in Turkey is MIGA, abbreviated from the Seasonal Worker Migration Communication Network. Istanbul Bilgi University Migration Studies Application and Research Centre has made an attempt to address the various dimensions of the 'seasonal migrant agricultural workers' phenomenon by organizing a network of relevant parties to participate and to develop policy proposals by evaluating the long-standing application of seasonal agricultural labour and the existence of multidimensional social and economic problems arising from it.

It was enacted as a project called METIP through a circular issued by the prime minister's office for seasonal agricultural workers in 2010. METIP financed by the national budget is a project implemented by the Ministry of Labour and Social Security through local governorships in the provinces where seasonal agricultural workers are most concentrated to improve the working and social lives of seasonal agricultural workers. The project provides financing for seasonal agricultural workers in various areas such as training, health, transportation, housing, infrastructure, and social environment-related activities throughout the province. The METIP project is fully funded by the national budget.

The research carried out by the Development Workshop in 2012, within the framework of the concept of "child poverty", aimed that seasonal agricultural workers working in Ordu, Yozgat, Şanlıurfa, and Adana-Mersin had access to educational opportunities for their children aged 6-12. The study discussed not only the educational problems of children but also the sheltering conditions of seasonal agricultural workers.

Another research project carried out by the Development Workshop includes the model action plan for children working in seasonal agricultural work in Çukurova. In this study conducted in 2013, the 6-14 age group was designated as a focus group and the working and educational relationships were determined according to the crop pattern in which these children produced defined as agricultural workers.

UNFPA (United Nations Population Fund) is a UN agency that works to make a world where every birth is safe and every young person's potential is evaluated. The agency started its activities in 1969 and also

started working with Turkey in 1971. For more than forty years, UNFPA in Turkey has been supporting studies on seasonal agricultural workers.

Major Problems of Seasonal Agricultural Workers

The main issues of seasonal migrant agricultural workers can be summarized as transportation, housing, nutrition, hygiene (clean water and toilet), working conditions (working 12-13 hours a day), wages, job security, lack of Health and Social Security, education of children, ethnic discrimination and exclusion (MIGA, 2012).

Seasonal agricultural workers are treated around the world as a group of with inappropriate living conditions and housing conditions, malnourished nutrition, accidents and injuries, reproductive health problems, pesticide effect, excessive heat and cold, premature deaths and diseases due to inability to access service, exposed to the worst conditions of working life and living all aspects of social exclusion. Until recent years, decision-makers, public and non-governmental organizations, as well as, scientists and research institutions have defined them as "unseen and inaudible" (UNFPA 2011).

In a research by UNFPA completed in 2011 and published in 2012, which is conducted in Şanlıurfa and Adıyaman provincial centres, where the majority of the population is seasonal agricultural workers, they reported long and tiring working conditions, lack of bathroom and toilet, problems in accessing health care and clean water. When the families were asked what they did while they were not working in the field, they often replied, "talking to each other."

In the "Report of the Parliamentary Research Commission established to determine the measures to be taken by investigating the problems of Seasonal Agricultural Workers" published in March 2015, the titles of the problems of seasonal agricultural workers are listed as follows:

1. Transportation Issues,
2. Housing Issues,
3. Health Issues,
4. Occupational Health and safety issues,
5. Educational Problems (Especially Educational Problems of Child Workers of Educational Age),
6. Social Security Issues,
7. Problems of wage and Labour Relations,
8. Problems of Intermediary Relationships,
9. Problems associated with the social environment, problems of Seasonal Agricultural Women Workers,
10. Child Labour Issues,
11. The problem of Foreign Workers in Seasonal Agricultural Jobs,
12. Problems related to organization and use of political rights

The titles listed above clearly show that seasonal agricultural labour is a problematic phenomenon.

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Suggestions on Improvement

In the revised European Social Charter adopted in 1996, some rights that can be adapted to the lives of seasonal agricultural workers can be listed as follows:

Fair working conditions, safe and healthy working conditions, right to protection of children and young people, right to benefit from social welfare services, right to protection against social exclusion and poverty, right to protection in cases where the employment contract ends, right to protection and assistance of working migrants and their families (Steel, 2005).

The Official Gazette of 19 April 2017 also published a circular of Seasonal Agricultural Workers by the Prime Ministry. This circular contains proposals for improvement through 36 articles. The parts of these articles related to the terms of the settlement are as follows:

"The following works will be carried out with the cooperation of related institutions and organizations to resolve the problems of our citizens and their families who went to other provinces to work as seasonal agricultural workers."

1. In places where seasonal agricultural workers work extensively, the governorates should establish temporary settlements with a building of sufficient size with a reinforced concrete or steel frame, with electricity, water, and sewage substructure and superstructure, which have common use areas where workers can meet their basic needs and their educational and social activities.
2. Temporary residential areas will be chosen from among the public purse immovable properties that will not be adversely affected by natural events such as floods and waters, where road and infrastructure services can be provided easily, suitable for health conditions, at a sufficient distance to dangerous and forbidden places, capable of supplying the minimum needs of workers and suitable for the number of the workers. In this context, the immovable property requested and deemed appropriate by the Ministry of Finance shall be allocated for use for the stated purposes.
3. The subscription and usage fees for providing water and electricity services to temporary settlements will be paid by the appropriations transferred by the Ministry of Labour and Social Security to the budgets of the investment monitoring and coordination presidencies and special provincial administrations.
4. Disposal of wastes by disinfecting temporary settlement areas against all kinds of pests at regular intervals, providing clean drinking and utility water, shall be carried out by the relevant municipalities within the boundaries of the municipality or in the adjacent areas, and by the special provincial administrations outside the boundaries of the municipality; In the temporary settlement areas, no expenditure will be allowed by the governorates for any temporary or permanent structure (tent, prefabricated, building, etc.) other than those specified in the first article. Transportation infrastructure will not be established except for

the purpose of ensuring the connection between temporary residential areas and the roads.

The situation in 2017 is that steps are being taken for improvement. Although there are promising measures in this circular, supervision is still a major problem.

The concept of seasonal agricultural work, which is tried to be defined with the general expressions above, is actually visible by the state but remains weak in practice, which forms the basis of the encountered problems.

In the next chapter, the design process is described within the scope of the design studio experienced with the students of Anadolu University, Department of Architecture, at the 2017-2018 Fall Period, in Eskişehir Province, Sarıcakaya district, Laçin Village. During that semester, alternative solutions are presented for the housing conditions of seasonal workers who migrated from their permanent residence for asparagus agriculture. Designs proposals involving various approaches for the housing of workers improved by the fieldwork, in which problems specific to Laçin were identified.

CASE STUDY

Design Brief

In the fall semester of 2017-2018, students were asked to develop housing proposals for seasonal agricultural workers within the course of Architectural Design Studio V.

Design concepts

temporariness x permanence
portability x location dependent
placeless x place-dependent
without infrastructure x a new infrastructure
self-made x or ....

The purpose of the studio is to produce designs for the construction of "temporary", "mobile" or "portable" shelters for agricultural workers who come to the place temporarily from other provinces to work in agricultural areas and have to live with limited facilities in tents during the working period between March and October.

Requirements of the design:

- Agricultural workers should have the appropriate living standards during the working period.
- Alternative and renewable energy technologies should be provided on the settlement area, thus achieving sustainable resource strategy.
- They should adapt to the natural environment near the residential area.
- Different shelter models should be examined.

It should be temporary
It should be mobile,
It should be "Portable" for users,
It can be "built" by the users
The construction processes in which these types are treated as complex should be tried,
It should be addressed the criteria as much as endurance and affordability.

Environmental planning and designs of new accommodation units on the new residential area should be made.

Figure 1. Poster, Brief, and Content of the Architectural Design Studio V

There is a particular group of workers who can be described as voluntary or compulsory nomadic subjects who often left their established order for economic reasons and who are in a position to make temporary housing in different geographies for periods determined by the cultivated plant season and climate. Seasonal workers farming asparagus in Laçin, Sarıcakaya District of Eskişehir, are also among these communities. However, due to the experience required by the production of asparagus annually and because the climate is favourable for periods of more than six months, a housing problem that cannot be called “temporary” has arisen. Therefore, the area –Laçin - that is the case study of the architectural design studio has created a basis for the interpretation of

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concepts such as temporariness-permanence, portability-dependence on place, placelessness-belonging to place, contributing to the production of original and diverse design knowledge. The poster and content of the studio are in Figure 1.

Fieldwork

The region chosen to identify the housing problems of seasonal agricultural workers is located in Eskişehir province, Sarıcakaya district. In the study, seasonal workers who emigrated from the areas where they lived for asparagus agriculture to the village of Laçin, were examined.

Sarıcakaya district is located in the Central Sakarya Valley, 51 km north of Eskisehir. It is located in the south of Bolu, southwest of Ankara, west of Alpu district, northwest and north of Eskişehir Central District, east of Mihalgazi district, south and southeast of Bilecik province. Thanks to the favorable climate of the valley, which is in the view of natural greenhouses, all kinds of vegetables and fruits can be produced in the district (Altınsapan and Parla, 2004).

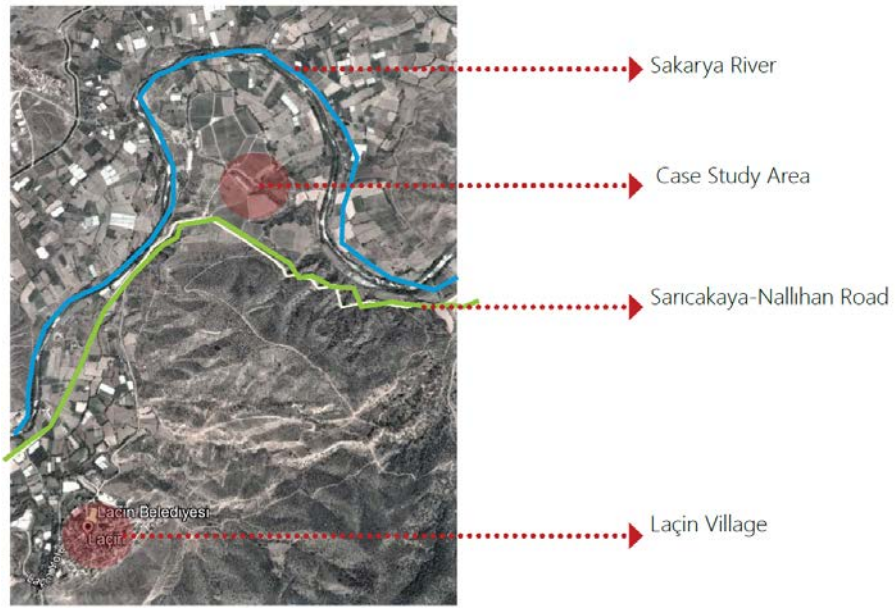

Figure 2. Location of Case Study Area in the Aerial Map

Sakarya River passes through the district. Sakarya River, which returns to the west after Sarıyar Dam, passes through the territory of Sarıcakaya between narrow and deep Bosporus (Albek, 1991). Sarıcakaya, located at an altitude of 220 meters above sea level, has microclimate conditioning. Because the area is surrounded by high mountains, the surrounding terrestrial climate conditions do not reach the inland areas, and there is Mediterranean climate characteristic (Anonymous, 2015). This situation also positively affects Sarıcakaya, whose climate, water resources, and soil are suitable for agriculture, making it very efficient in terms of agricultural production. Therefore, the district is witnessing the migration of agricultural labour intensively in a seasonal basis. (Figure 2).

Social Structure of the Workers

Sixteen families were identified in the area for seasonal farming purposes. Of these 16 families, 10 were surveyed. The number of adults in the shelter, education status of adults, number of children, age of children, school attendance status of them, the provinces from which they came were inferred from the information gathered in the survey. According to this, 5 of the 16 families were from Diyarbakir, 3 from Adana, and 8 from Urfa (Figure 3).

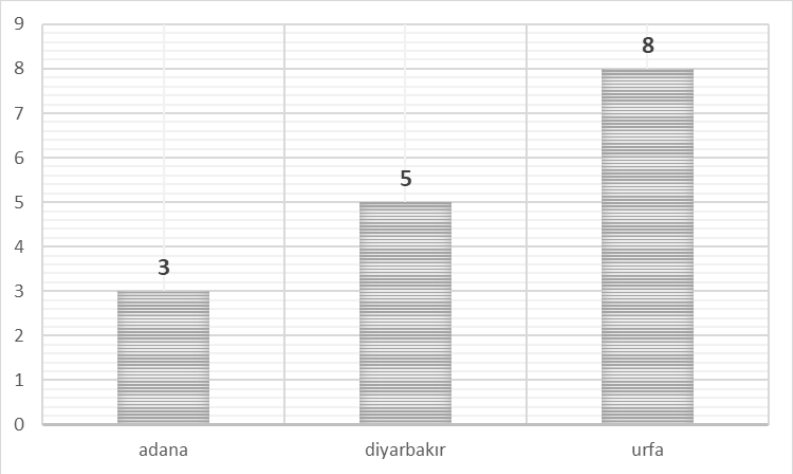

Figure 3. Origins of the Families

Information about 12 families was obtained from 10 families. Accordingly, a total of 83 individuals, 53 of them children, were found in 12 shelters (Figure 4). As a result, according to information obtained from 12 families, 63.9% of those living in tents in the area are children, and the rest is adult.

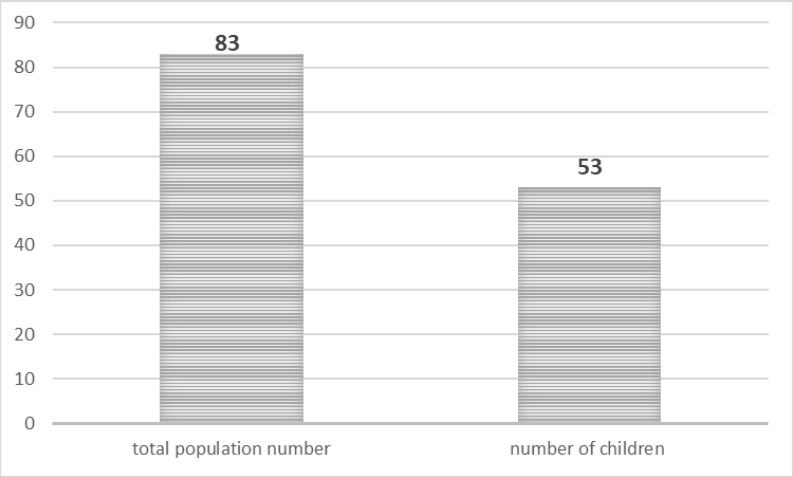

Figure 4. Number of Adults and Children

The high number of children is intriguing about child age distribution and continuity to school. According to the questions asked in this direction, 45 of the 53 children were of school age; only 20 of these 45 children

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attend school; The other 25 were found to be working in the field, not going to school (Figure 5).

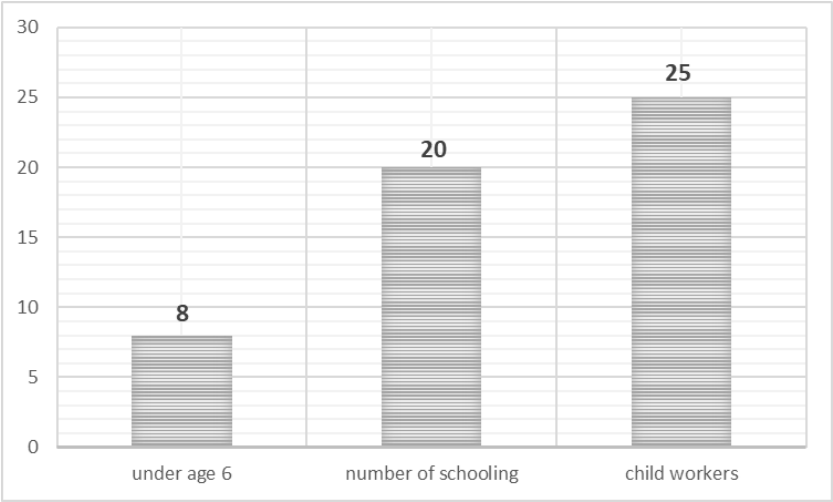

Figure 5. The Distribution of Age of Children and School Attendance

Another information is about the educational status of the father and mother of the family. Accordingly, 20% of the men in families are illiterate; 40% of them know reading and writing but have no diploma; 30% finished primary school; the remaining 10% were found to be secondary school graduates. These rates change for spouses towards only the capability of reading and writing. It was determined that 80% of spouses do not read.

Another point observed in the field is that among the total of sixteen families, a family from Urfa, has three wives and fifteen individuals, including eleven children in the family. Other than that, polygamy was not observed in any tent. In addition, 30% of those living in tents are in the form of a large family; the remaining 70% were marked to live as a core family.

The Conditions for Housing in the Field

Seasonal agricultural workers work in asparagus agriculture in Laçin. The workers' shelter area is located at the entrance of the farm fields. There are a total of sixteen shelters. There are two separate elevations in the residential area with a height difference of about 3m. The upper level is where seasonal agricultural workers' housing units are dense. The term housing unit was used in the study. This is because the spaces required for a housing take place in different tents. One family was identified to have one housing unit. The housing unit was composed of units such as a shelter tent, cooking tent, warehouse, bathroom, and toilet tent. These settlements are not temporary. The majority are the working families who come and settle every six months and spend six months of their lives working here again every year. Only five or six families are one-time workers in a year. Other families regularly come to the working area. All housing units have electrical wiring. The water is stored in bins outside the housing units. There is no sewage infrastructure. Electric

power is provided by solar collectors. There are two families living in the lower level, one with three wives, and the housing areas are separated and privatized. Fourteen families live in the upper level. (Figure 6)

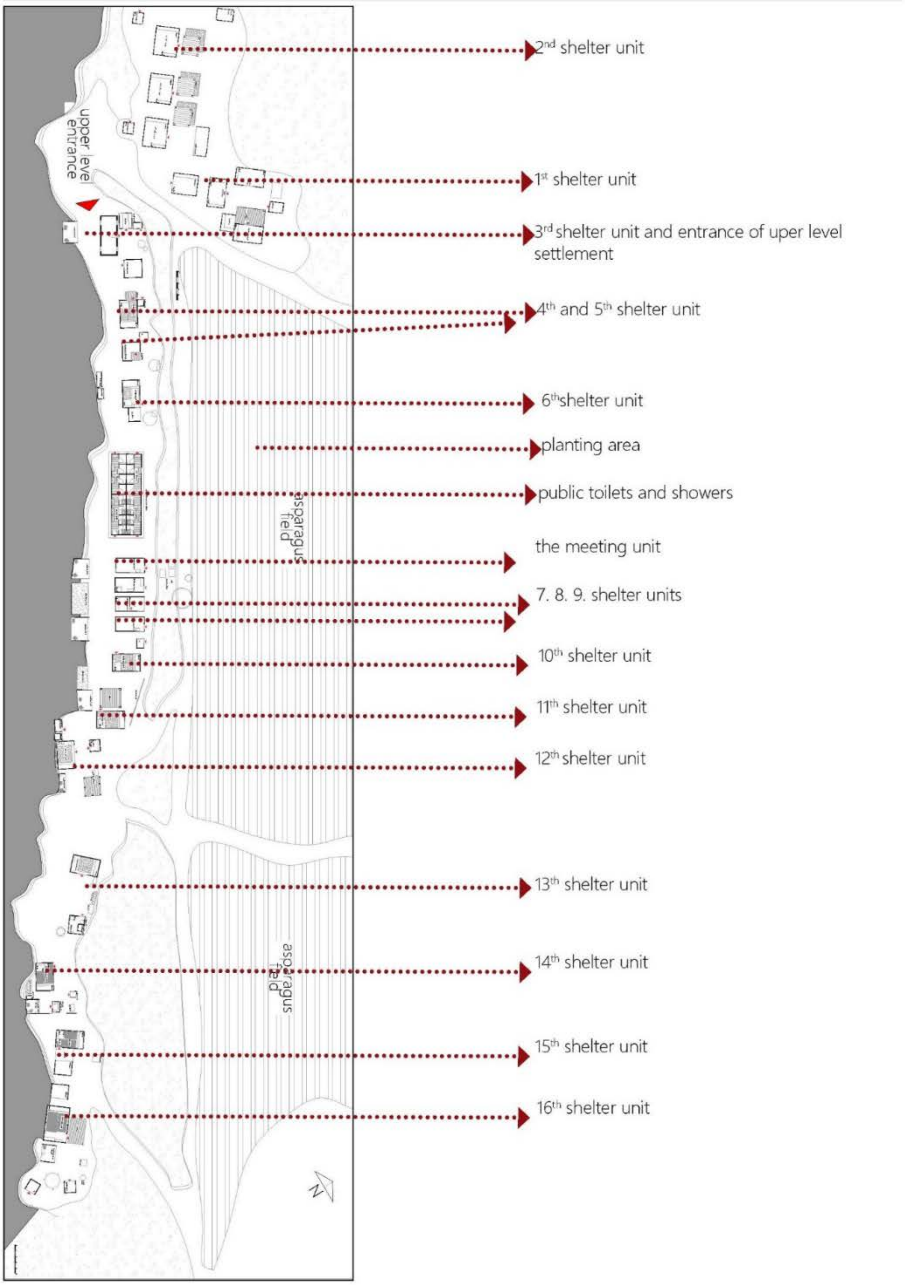

Figure 6. Existing Site Plan

There is a shared toilet and shower area in the housing area (Figure 7). However, common toilets and showers are not much preferred, and families set up their own toilet and bathroom tents. Families are mostly crowded ones.

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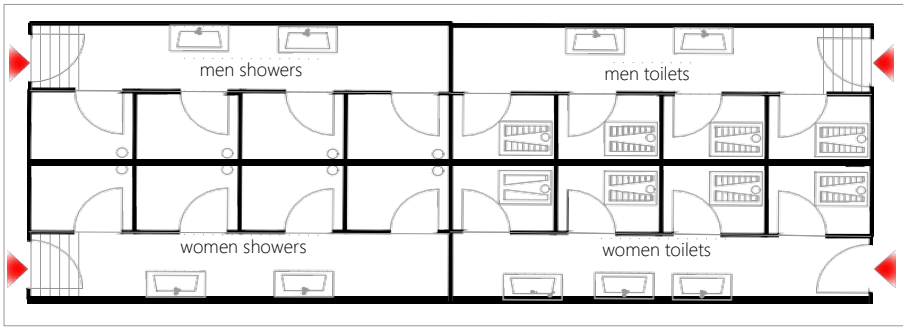
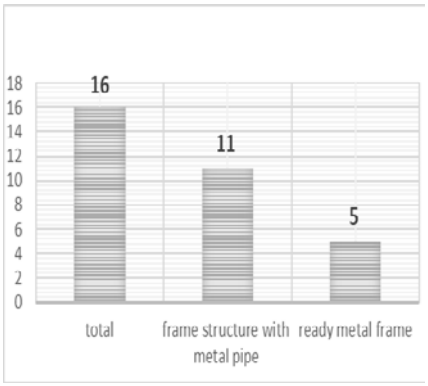


Figure 7. Plan of Public Toilets and Showers

Figure 8. Informative sheet about the existing housing (1st- 10th units)

Figure 9. Informative sheet about the existing housing (11th- 16h units)



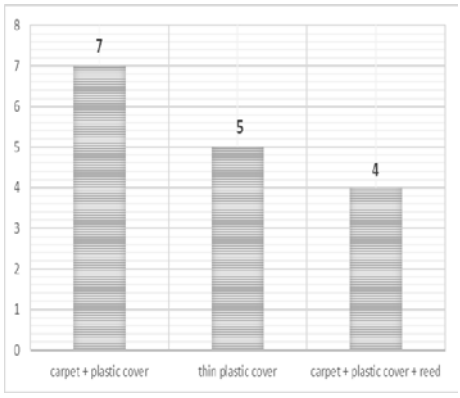


Figure 10. Materials used in existing housing

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Housing units are structurally similar. The tents were created by building frames from metal pipe profiles belonging to the workers themselves. Some tents are made of ready-to-use and vault-shaped metal profiles commonly used in greenhouse construction. The floors of the interior are covered with carpet. Housing units themselves are covered with rugs, cloth, and plastic coating on a metal structure. In some houses, reed covers were used on external surfaces, thus providing natural air conditioning (Figure 10 and Figure 11).

Figure 11. 1. Reed coating 2.Kitchen shelf 3.Cooking, 4.Frame structure with pipe profiles
5. Flooring: carpet and plastic cover above the soil

There is no furniture in the housing units. There are shelves in the main living tent, which is set up from metal pipe profiles used only for the structural system, and in some of the separately arranged kitchen tents.

The common characteristics of the housing units are that the cooking areas are separate, that there is a small planting area next to the coop, and almost all sheep pen units. There are simple wooden metal-framed countertops outside for cooking and washing dishes (on hot days). Families bring most of their dry foods from their homes. For this reason, some units have separate warehouse tents. Some housing units have open arbour areas whose top are covered. Most of the housing units have a refrigerator and a washing machine. Almost all housing tents have televisions. There are a washing machine, fridge, and television as an electrical home appliance, and television exists in 13 housing units out of 16 (Figure 12).

Workers complain about the lack of common areas. There is no social connection with the settlement in the immediate area. This situation is caused by the lack of the desire of the indigenous people to communicate and the limited means of the workers. The number of children in primary school age is high. According to authorities, children of educational age are attending school. However, they are mostly educated in another school from March, which creates disruption and failure in children's education.

Fieldwork has become an example of what makes the sheltering problem of seasonal agricultural workers visible. After obtaining the available data, it was discussed whether there were concepts that could be used for

design proposals. Because of this data, design ideas were proposed and presented in architectural education.

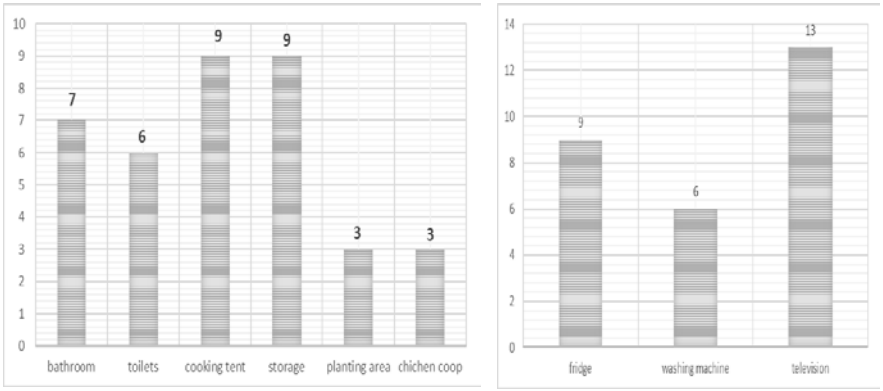

Figure 12. Spatial Distribution of the Tents and the Appliances

HOUSING DESIGN PROPOSALS FOR THE CASE STUDY

The proposals made for the studied area began with discussions of what should be done sociologically, rather than suggesting the paradigms of housing and semi-temporary spaces. The aim of the projects to be carried out in the area given as the project subject is to design a type of residence to be defined as "semi-temporary" housing as a solution to the housing problems of agricultural workers who come from other provinces to work in agricultural areas between March and October and have to live in tents with limited opportunities during the working period. Semi-temporary housing bears both the characteristics of impermanence and the characteristics of permanence. Seasonal housing, called semi-temporary housing, is described in the design proposals. The proposals suggest a physical improvement as well as improvement in the social context.

The definition of semi-temporary housing can be explained as follows: They are “portable”, “easily installed and stored”, sustainable housing in terms of material use, allowing the physical comfort level with natural air conditioning, which have no infrastructure problem, which are easily dismantled and installed in the following periods when workers return to their homes. It derives its impermanence from the fact that it is “portable”, which allows it to be easily installed and stored while it provides the condition of permanence through the fulfilment of the conditions of comfort and social improvement through the means of space. The main difference between semi-temporary housing and temporary housing is the use of time in terms of space. What is meant by temporary housing is the type of housing that hosts people for a short period of time, the space requirement is met with minimum criteria, and the user leaves the hobby, rest, and weekend orders for a short time. Semi-temporary housing to be designed for workers is a type of shelter where its daytime use is not for working individuals, but where they can rest and sleep, eat, and meet their bathroom needs after the end of work after 7:00 pm. In addition, some women who work in the field during the

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day perform the task of cooking. For this reason, resting activity becomes even more limited in the accommodation unit for these women.

In the process of solution proposals, it was aimed to make environmentally appropriate planning and design of new housing units on the new settlement area where agricultural workers can have an appropriate standard of living during the working period, providing alternative and renewable energy technologies to achieve sustainable sourcing strategy, adapting them to the natural environment near the residential area, being semi-temporary, mobile, "portable" and "buildable" by users, in which the complex construction processes are tested, durability and economy criteria are discussed.

Housing units provided with comfort for resting hours should be indispensable for agricultural workers. The shelter tent should include the actions of preparing food, eating, washing, sleeping, storing, and sometimes the toilet should be inside or outside.

Proposals include design concepts that will enable social improvement. Workers were offered a social space on a micro and macro scale. Semi-public spaces-courtyards were proposed to increase socialization among housing units for micro-scale socialization. On the macro scale, social areas, educational areas, and gathering areas were also proposed in the general area of settlement. A project proposal suggested a permanent settlement and a permanent social structure change. The theme of this proposal is that during the other six months when agricultural workers are not working, housing units are transformed into places where seasonal agricultural workers can be trained. Another suggestion of social improvement is to ensure continuity of cultural identity and thus provide spatial acquaintance. Agricultural workers are mostly from a particular region, and their feelings of belonging can be strengthened through a spatial acquaintance. The use of the courtyard, the coexistence of indoor and outdoor spaces, the area for cooking tandoor bread, the cultivation area for small-scale vegetable growing, the proposal of a henhouse for poultries were deemed necessary to keep their local identity alive.

Because there is not much funds allocated in the current state for housing units, workers spend six months in a single-room, privacy-deprived venue. The main distinguishing element of the shelter tent is the veil, and the beds used at night provide cover for personal items. Research in the field found that there was no separate room of the parents. Privacy is considered to be a primary design parameter in recommended projects.

In the field study conducted in Sarıcakaya agricultural area, it was determined that the seasonal agricultural workers' housing problem was met with a single type tent that can be set up easily, which can be moved and contains uncomfortable housing conditions. In the solution proposals, the easy establishment and storage of the structures of the existing shelters can be regarded as a positive feature because they have a pragmatic correspondence (Table 1). The aim of the proposals is to explain that the tent, which is seen and continues to be seen as a uniform

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kind of shelter, should not be a shelter of a way of life spanning six months, and to show that the sheltering can be varied.

Table 1. Positive and Negative Inferences from the Existing Sheltering

INFERENCES FROM THE CURRENT LAYOUT	
Negative Inferences	**Positive Inferences**
Insufficiency and unhealthiness of Places with Insufficient Hygiene	Low-Cost Material Use
Uncomfortable Interiors due to Insufficient Insulation	Easy setup
Hygiene Insufficiency in Cooking Areas	Easy Storage
Lack of Storage Space	Easy Assemble
Lack of Social Space	Reusability
Infrastructure Insufficiency Roads Access to Clean Water	Places that are divided according to the purpose of use (cooking)
Lack of After-School Study Area for Children	Multi-purpose uses (life and sleep)
Use of materials that are not resistant to cold and heat in shelter units and tents	

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Table 2. Design Concepts Regarded for the Proposals

DESIGN CONCEPTS FOR PROPOSALS	
Design Concepts For Improvement of Physical Conditions	**Design Concepts For Improving Social Conditions**
SUSTAINABLE DESIGN *Sustainable Material* *Use of Recycled Materials*	**SUSTAINABILITY OF LOCAL IDENTITY** Courtyard Use Having a Planting Area Establishing Spatial Acquaintance
LOW-COST DESIGN *Use of Recycled Material* *Redesigning and Reuse of Low-Cost Material* *Local Material Use*	
PHYSICAL COMFORT *Natural Air Conditioning* *Courtyard Usage* *Using Open and Closed Spaces Together* *Ergonomics*	**PUBLIC SPACE DESIGN** Courtyard Use Open space/closed space balance of sheltering
FLEXIBILITY *Min. and Max. Area Usage* *Articulation* *Adaptability* Flexible Furniture Use	
CONVENIENCE Easy Installation Easy Storage	**SOCIAL STRUCTURE FORMATION** Permanent Housing Proposal Multi-Functional Use Of Permanent Housing

The concepts discussed for the workshop are low-cost design, physical comfort, flexibility, and convenience within the framework of a sustainable design concept. These design concepts are based on the inferences from the existing sheltering (Table 1) and the data from survey and on-situ observations. The survey and observations provided the research with the concepts of cultural, economic and ecological sustainability (Table 2).

Low-Cost Design

The use of recycled materials and the redesign and reuse of low-cost material are important factors that reduce the cost. The problem of unsanitary accommodation of seasonal agricultural workers is sourced from unqualified-economical sheltering. Employers do not invest in the housing requirement and leave the housing to the initiative of the workers. The workers tried to solve this problem by means of tents, which are the cheapest, easiest to move, and easiest to install. However, economic sheltering can also be in a qualified way by reuse and rational use of their own materials. In many of the designs proposed in the studio,

solutions were suggested with both the use of recycled materials and with the selection of low-cost materials, so that the cost is kept low.

Improving Physical Comfort Conditions

Natural air conditioning

Dealing with hot and cold climate conditions is the most fundamental problem of housing in Laçin. In the current case, the most insulated cover detail is to wrap a veil from the reed mesh for insulation purposes in front of the tent material. Instead, the measures to be taken in the shelter shell can be realized by spatial forming, which allows natural ventilation against temperature. Natural ventilation can be solved by the geometry of housing, positioning of the openings of the spaces, and cooling the interiors by wind, and the use of courtyards. Ensuring natural ventilation allows the wind to circulate indoors. In this way, the air entering will be able to ensure natural ventilation by accelerating the circulation of the air.

The combined use of indoor and outdoor space and spatial solutions with courtyards make this type of airflow possible. The layout of the full and empty masses providing the airflow is important in natural air conditioning. In the present case, however, seasonal workers provide their accommodation not in a certain order, but with a linear alignment indiscriminately as permitted by the area. General settlement proposals were developed in many of the works produced in the studio, where the relationship of materials, surfaces, and masses for natural air conditioning concern is considered important.

Flexibility

The concept of flexibility, which is the product of modern movement in architecture, gained prominence after the 1950s, adding factors of "time" and "unknown" to design, giving a new perspective to functional architecture (Colquhoun, 1990; Forty, 2000). Gropius introduced flexibility as the main agenda item in the post-war years and saw flexibility as the method of the age (İslamoglu&Gulay, 2018). For some architects, flexibility is defined as the ability of the same unit to respond to different user needs without changing the building system and the possibility of the same volumes being used for multiple functions; some architects describe it as behaviour that requires the change of the building system to meet differentiated needs and actions. Flexibility in architecture can be stated as the ability of design to adapt to the changing needs of its user. In this adaptation process, spatial processes such as expansion, reduction, transformation should be areas that design allows while maintaining its identity.

In addition, Herman Hertzberger (1991) considers flexibility as open-ended solutions, referring to the "rhetorical value" of flexibility defined by Schneider and Till (2005). Maccreanor (1998) claims that flexibility does not mean an "infinite change" and that structures that were initially not designed for flexibility could be structures with the ability to change

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and adapt best. According to Forty (2000), flexibility is an illusion that gives architects future controls of their structure and is the wealth provided for the architect against the dilemma the architect faces about participation. One of the most up-to-date definitions in this regard is as follows: "It is the integrated attitude and freedom to use of existing requirements with possible changes of the future" (Kronenburg, 2011).
The concept of flexibility in architecture, which has many different qualities such as mobility, variability, divisibleness, is discussed as transition, articulation, adaptability, and flexible furniture use between the minimum and maximum space usage in housing proposals in the studio.

Convenience

The concept of convenience includes easy installation, disassembly, easy storage, and easy transport. The concept of convenience is one of the main features that are functional in the current situation and perhaps reinforce it. The fact that workers are able to provide shelter quickly and practically from the moment they come from their own place of residence, the extensiveness of employers who have completely left the housing process to the workers, and the need to recover the housing stuff after the end of the agricultural labour process, provide conditions that highlight the convenience. The seasonal agricultural workers build, dismantle, transport, and store their shelters themselves. For this reason, convenience was one of the most important topics of discussion in the projects produced in the workshop. In almost all cases where permanent housing is not recommended, the logic of bringing the worker's housing unit together by moving it easily on his own was transferred to the design. In the same way, attention was given to the idea that the unit could be dismantled and stored in a minimum space when the seasonal process would be completed.
The aspect of convenience, which also reduces the weight and cost of the structure, has increased the search for this quality in the designs. For this reason, each presented project has somehow reflected the concept of convenience in the design, as well as other concepts that it weighs on.

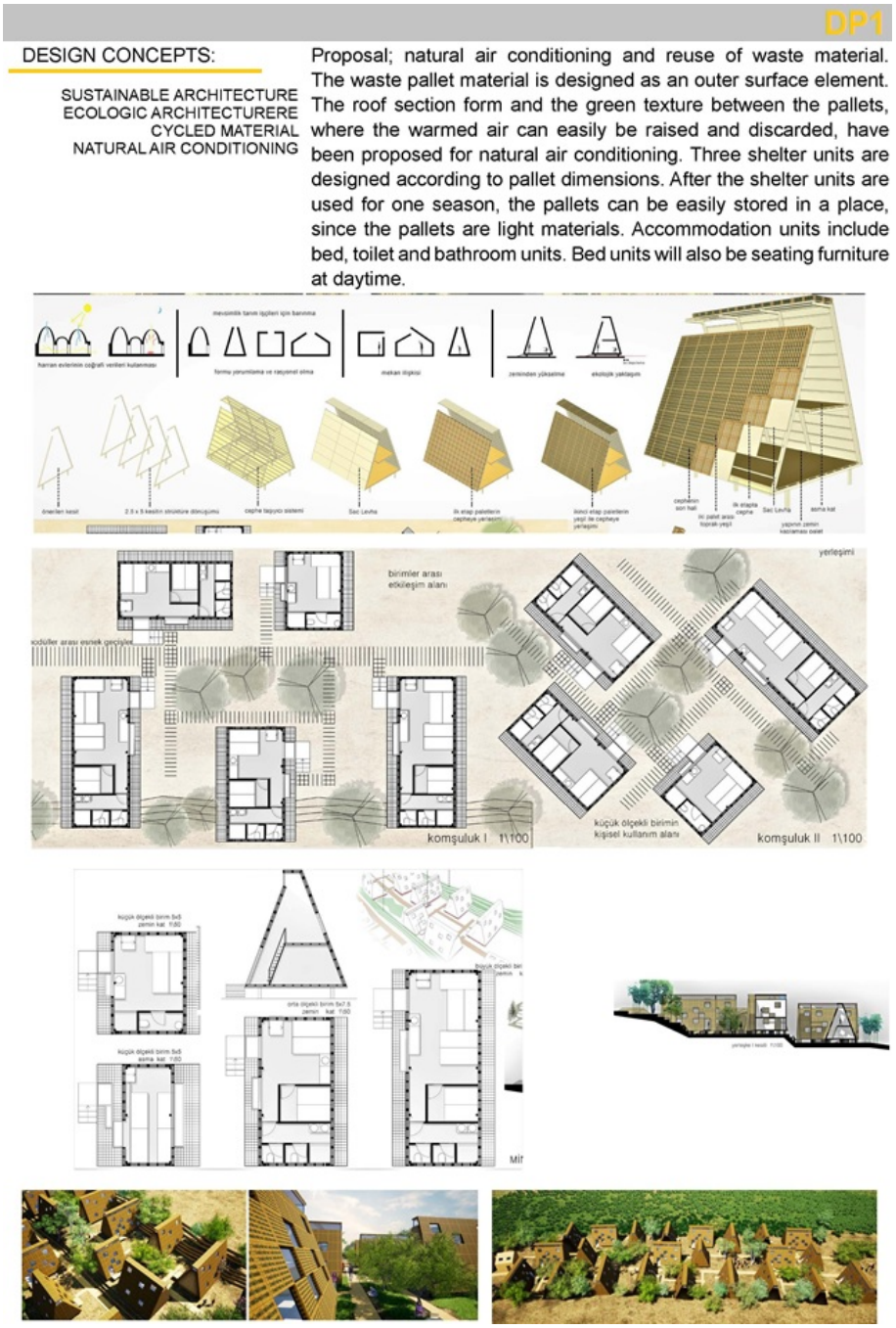

Figure 13. DP1: Design Proposal by Bünyamin Atan

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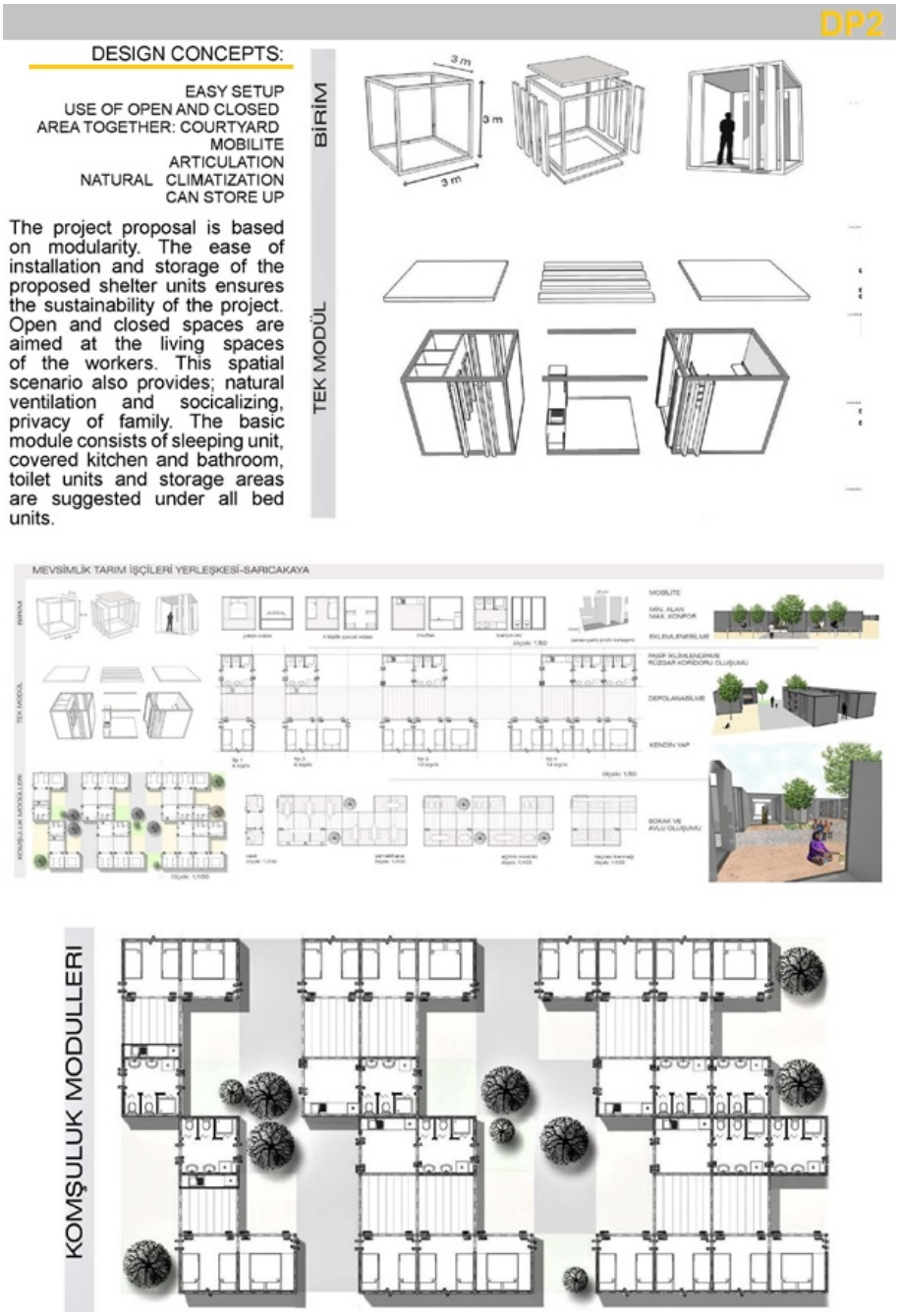

Figure 14. DP2: Design Proposal by Gizem Şenel

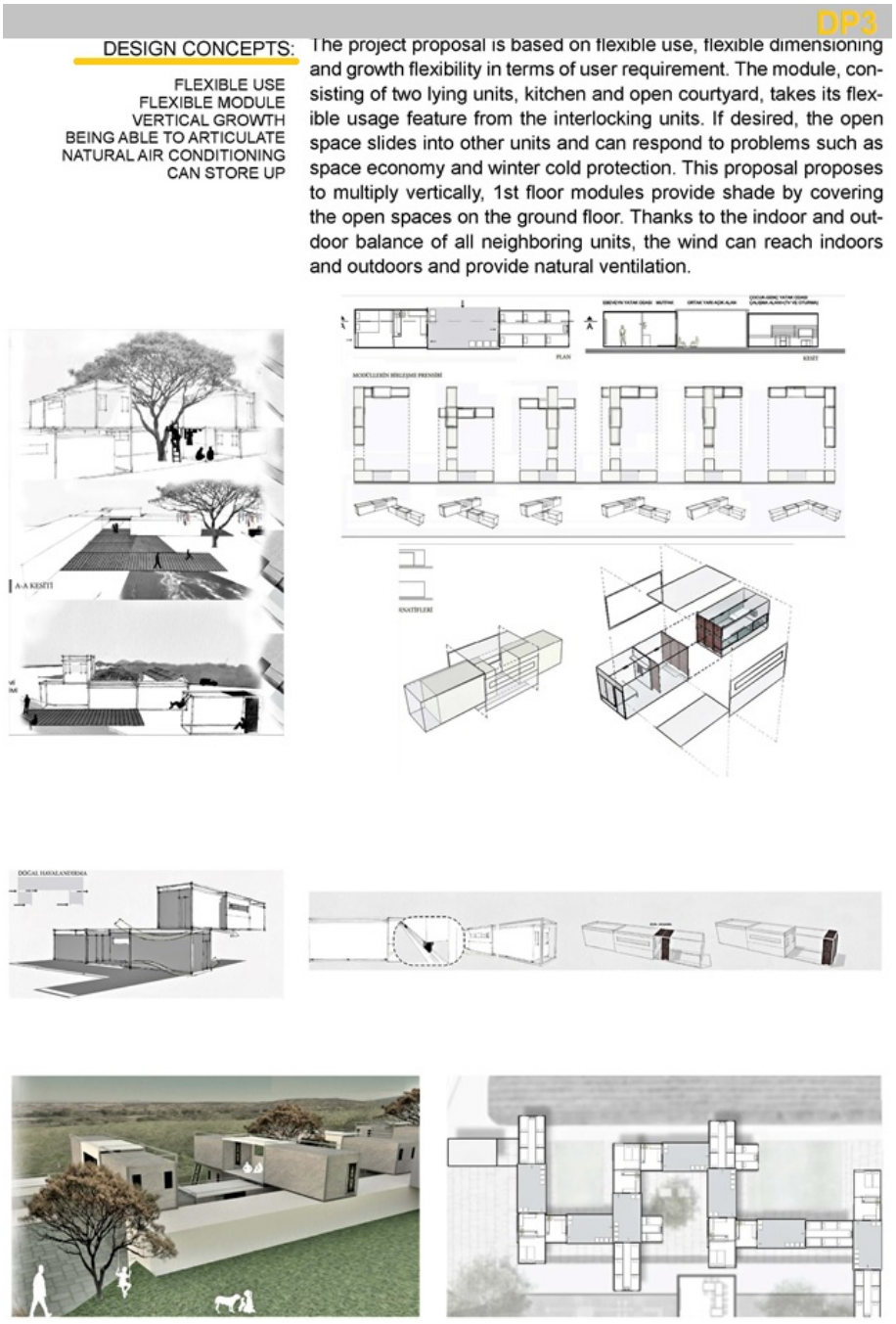

Figure 15. DP3: Design Proposal by Merve Ulukol

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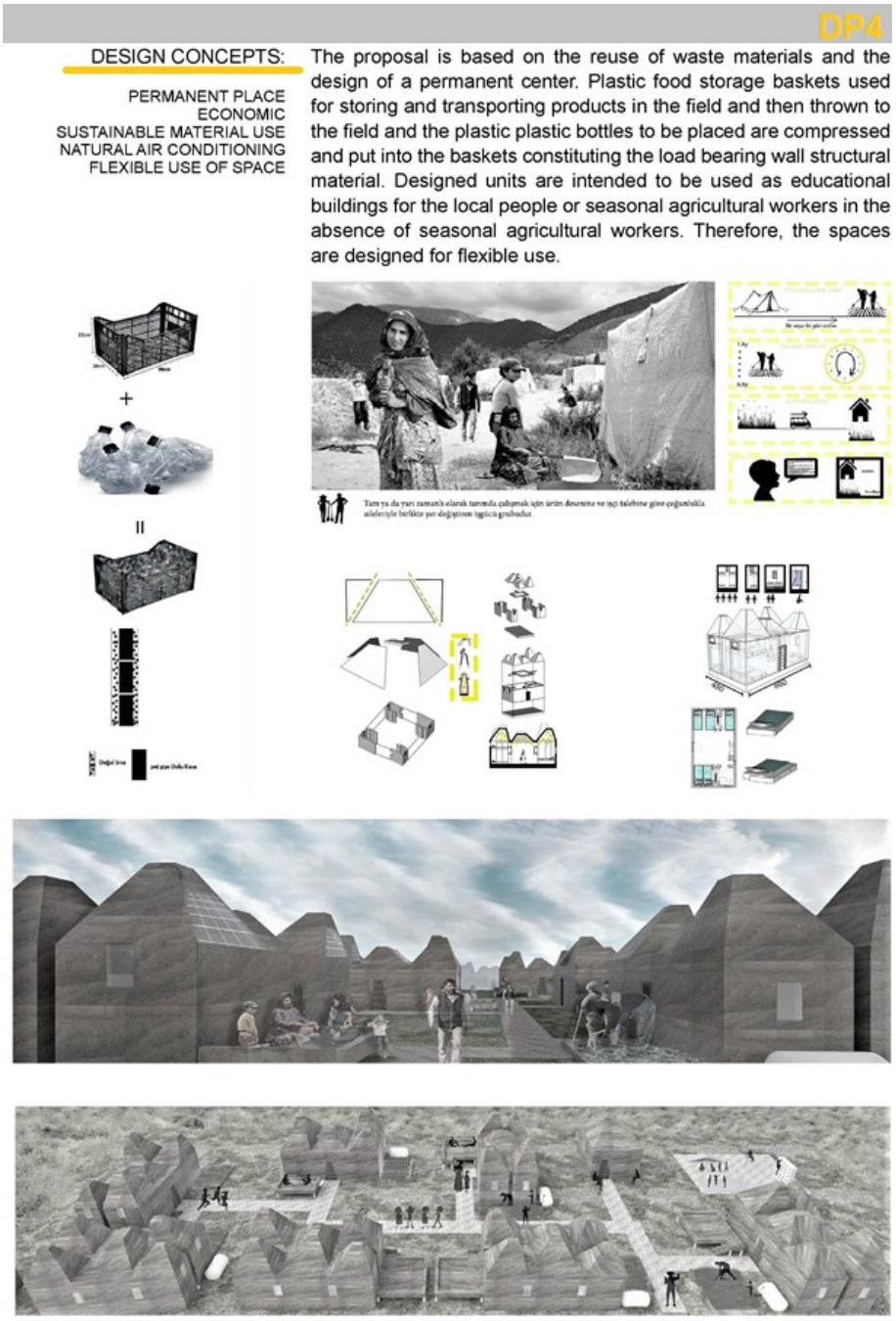

Figure 16. DP4: Design Proposal by Müslüm Varış

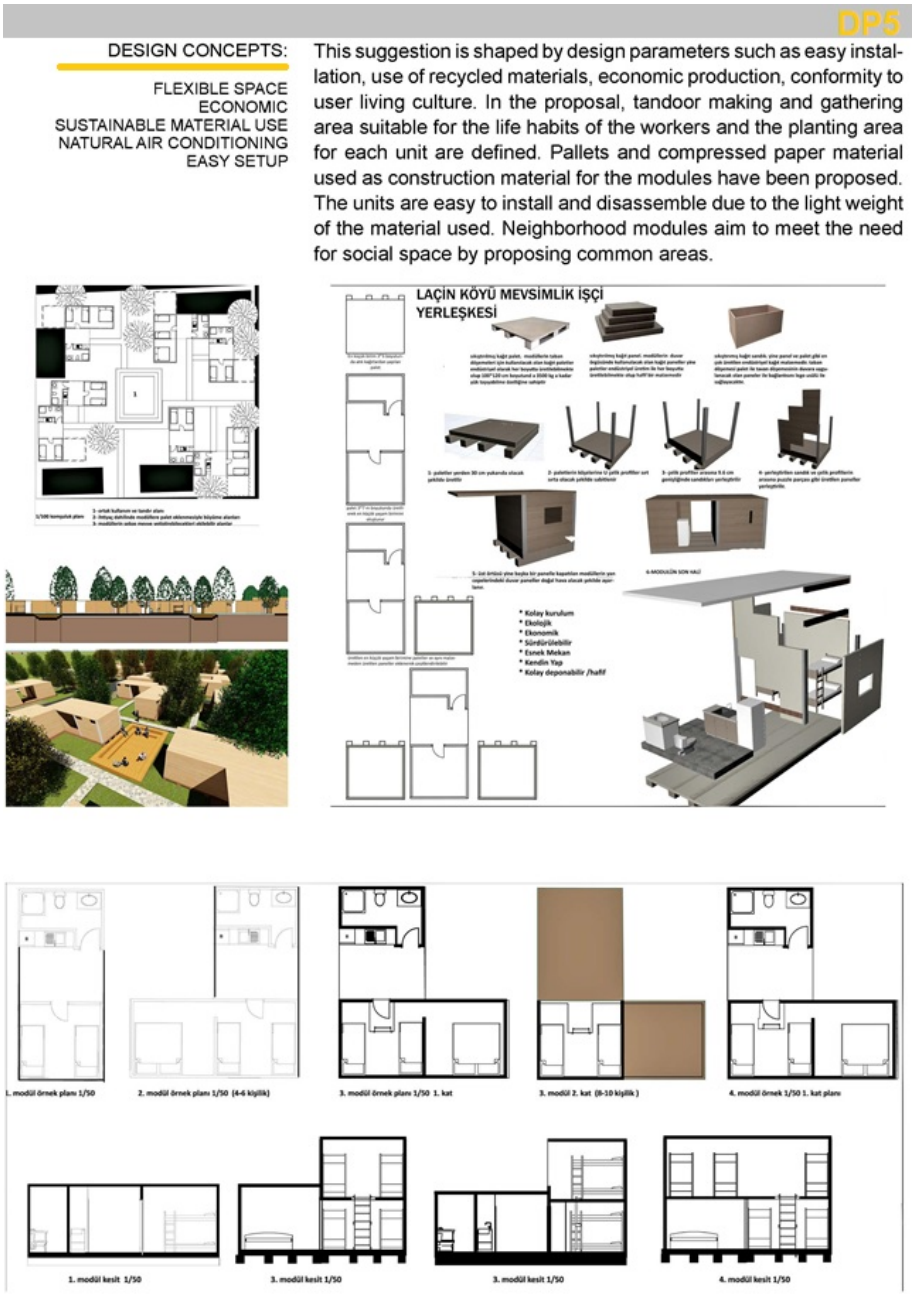

Figure 17. DP5: Design Proposal by Burak Kılıçkaya

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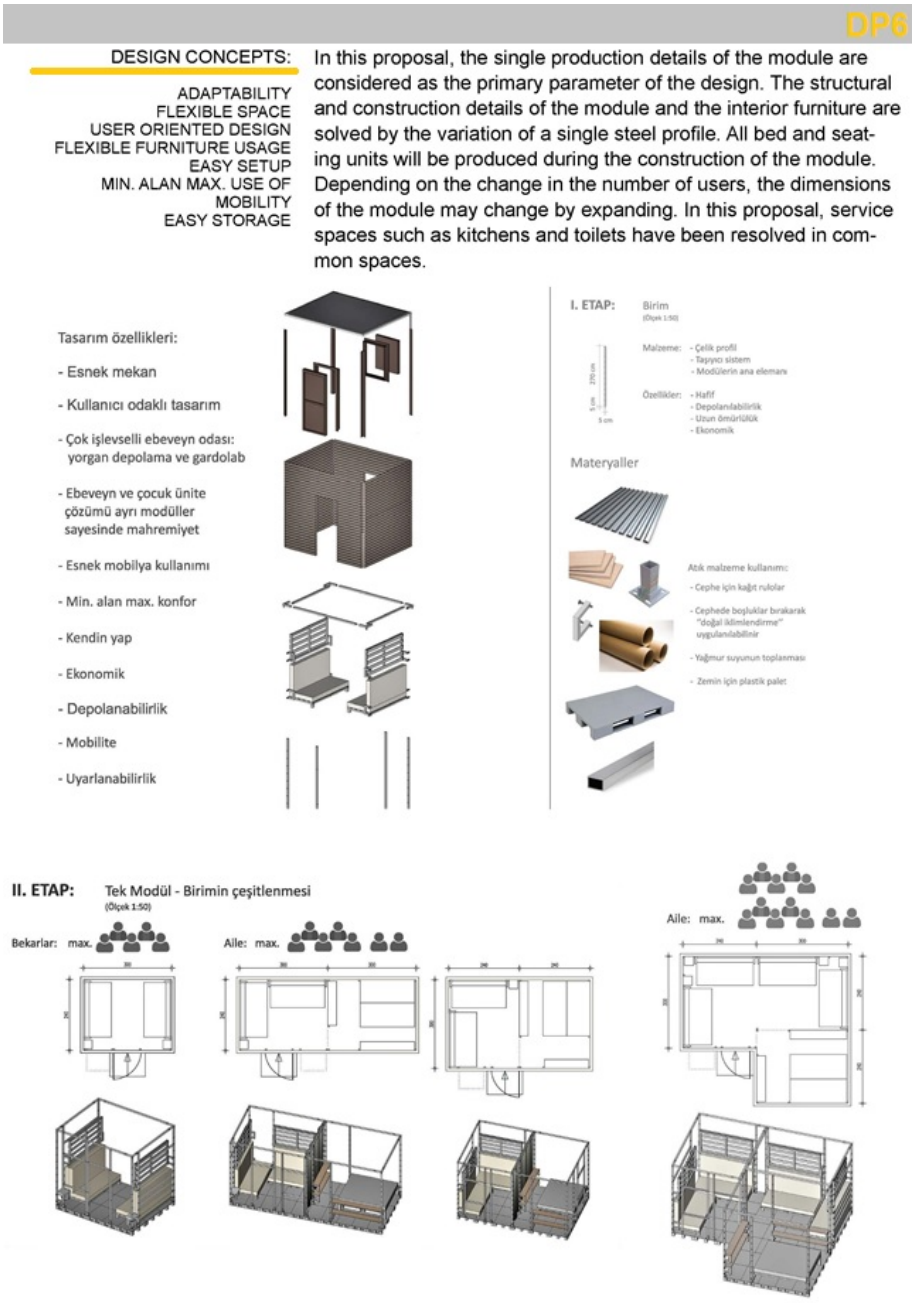

Figure 18. DP6: Design Proposal by Şelmin Çetin

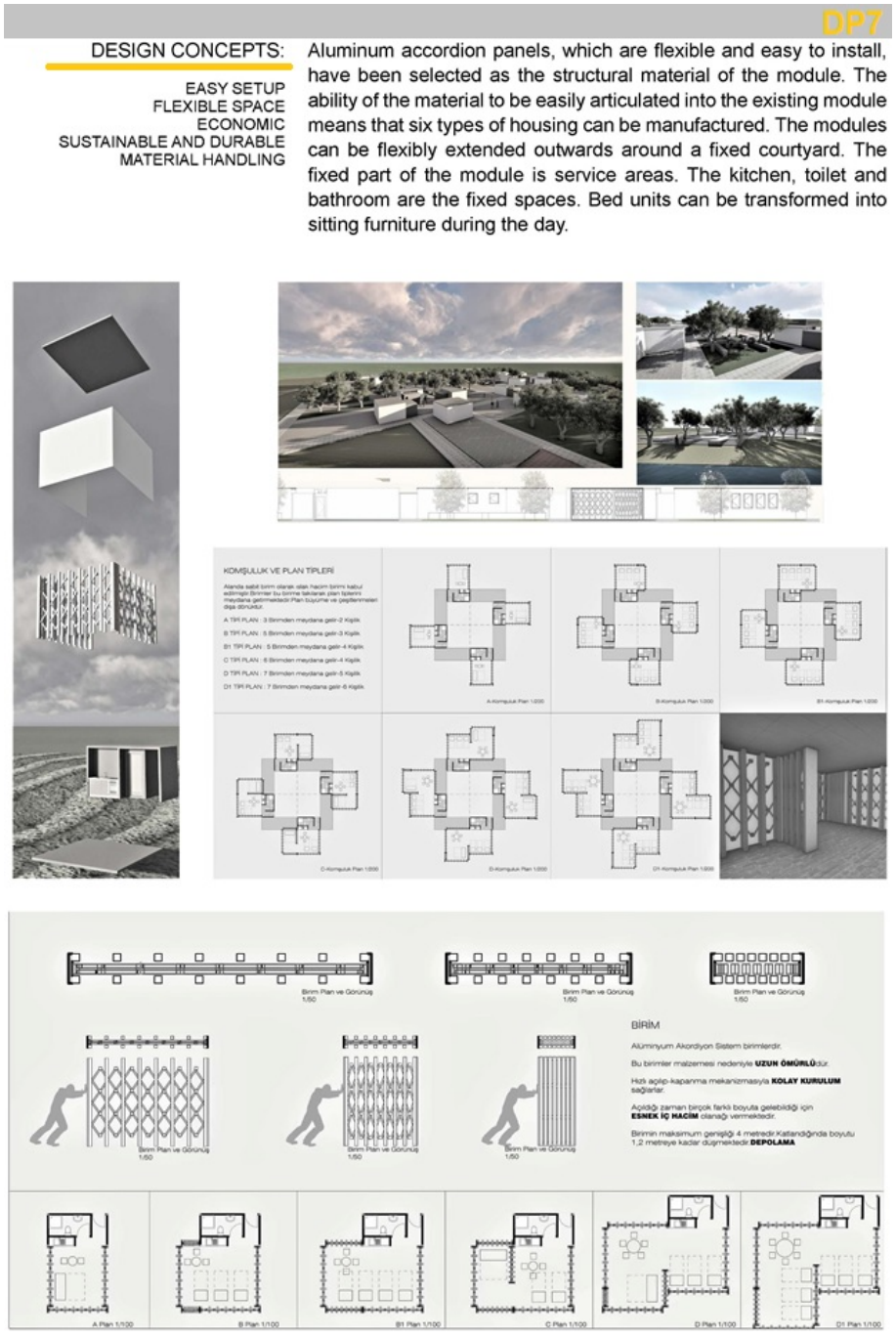

Figure 19. DP7: Design Proposal by Kübra Özer

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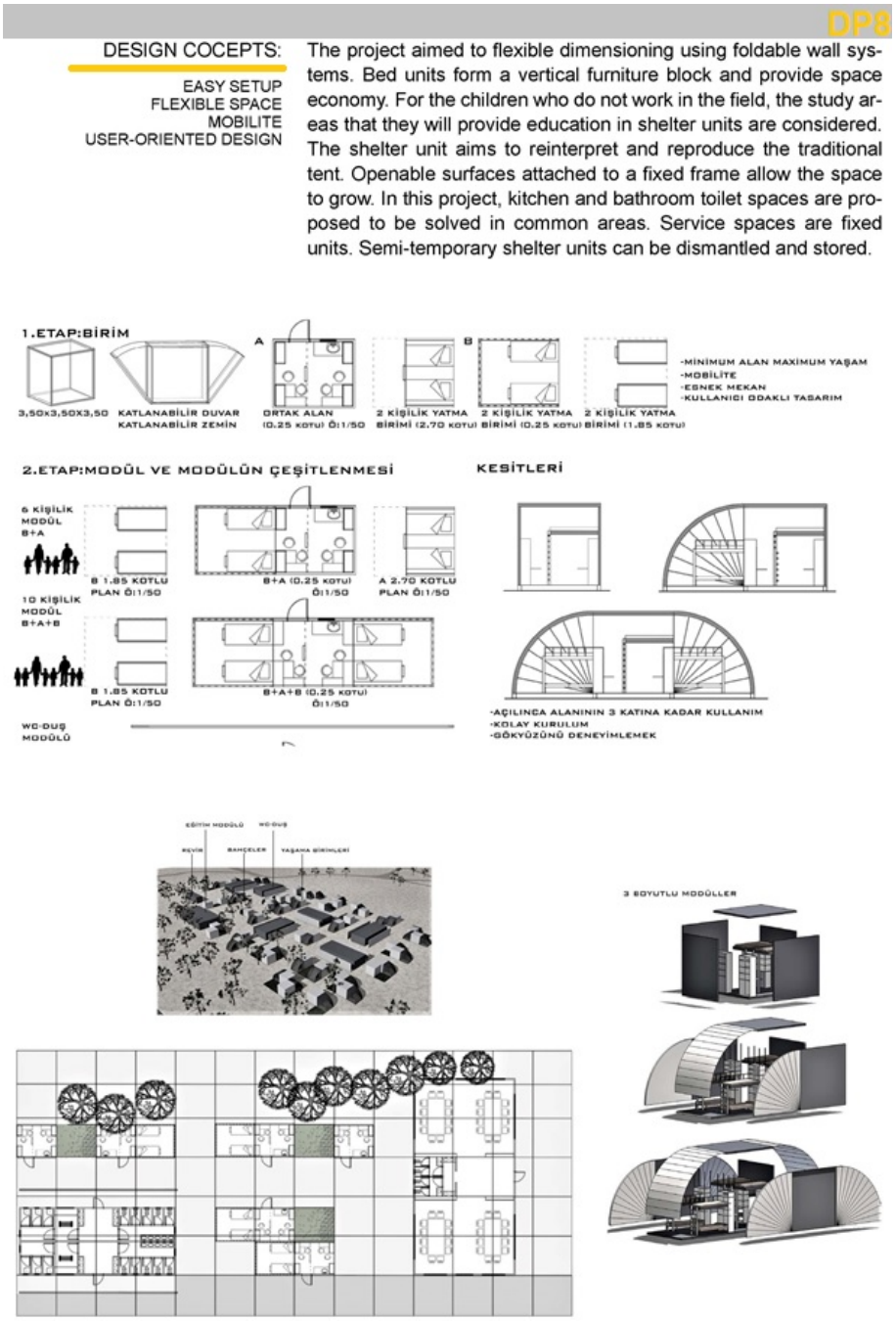

Figure 20. DP8: Design Proposal by Merve Yıldız

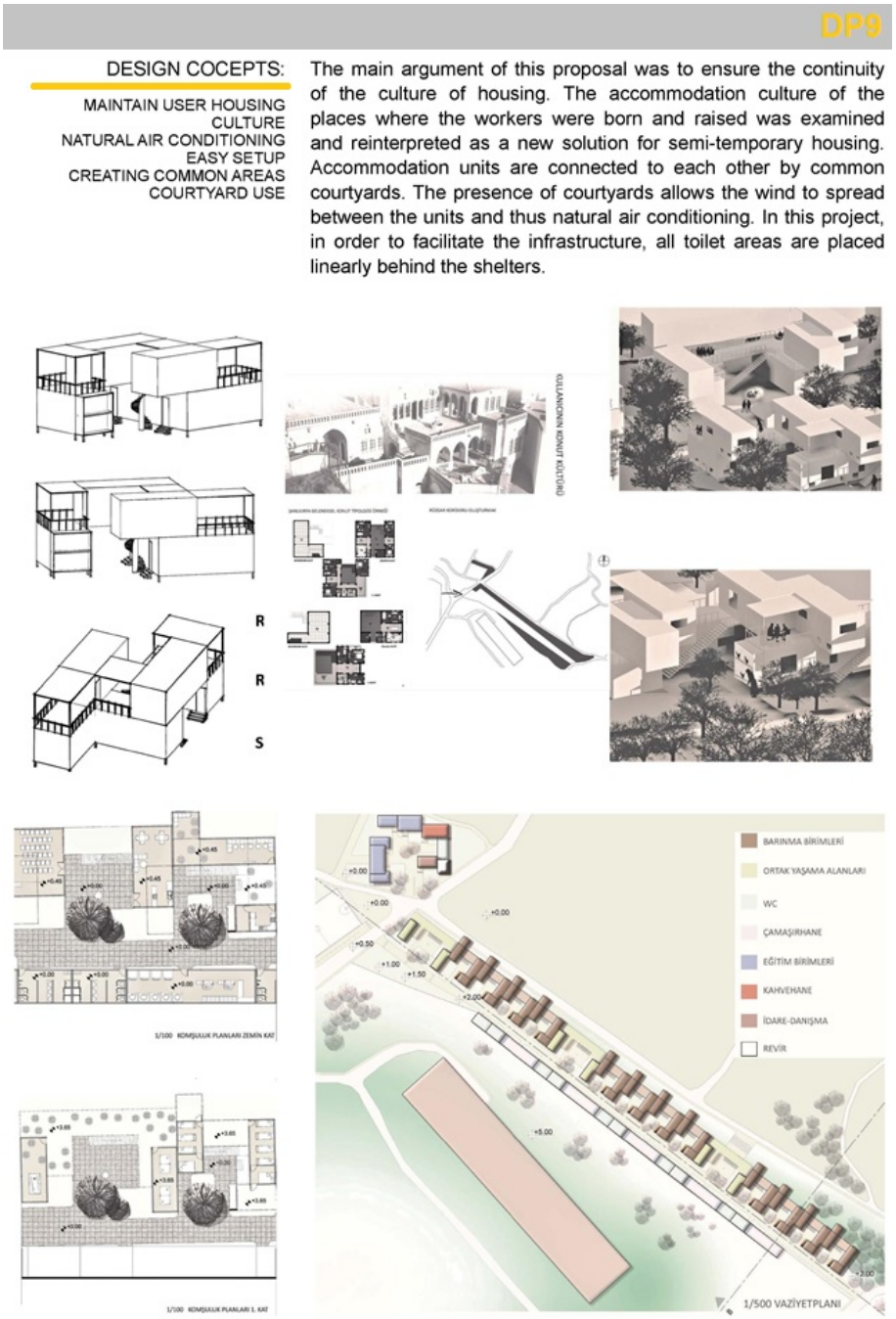

Figure 21. DP9: Design Proposal by Ezgi Aksoy

As a result of the main arguments of the design studio, the design solutions proposed for the housing problem of seasonal agricultural workers in Laçin are oriented by an approach of semi-temporary housing design. The design ideas shaped by the data from the existing conditions and the designerly positive concepts leading the life in the field. Those concepts were classified and categorized in Table 3 with respect to the dominant design configuration of the proposals.

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Table 3. The Design Proposals According to the Preferred Design Concepts

DESIGN CONCEPTS VS. DESIGN PROPOSALS	SUSTAINABLE DESIGN		LOW-COST DESIGN			PHYSICAL COMFORT			FLEXIBILITY				CONVENIENCE	
	Sustainable Material Usage	Use of Recycled Materials	Use of Recycled Materials	Redesign And Use Of Low-Cost Material	Use Of Regional Materials	Courtyard Use	Use of open and closed	Air conditioning openings designed according to	Min. and Max. Area Use	Being mountable	Adaptability	Flexible Use of Furniture	Easy Installation	Easy Storage
DP1	*	*	*				*	*				*	*	*
DP2						*							*	*
DP3						*	*			*	*		*	*
DP4	*	*	*		*				*	*	*			
DP5	*	*	*			*	*	*		*			*	*
DP6									*	*	*	*	*	*
DP7				*			*	*	*	*	*	*	*	*
DP8				*		*			*				*	*
DP9					*	*			*	*				

CONCLUSION

Physical and social infrastructure deficiencies were identified as a result of the field study in which seasonal agricultural workers' housing problems were determined and design proposals were presented in Laçin, Sarikaya district, Eskişehir. The main problems identified regarding physical infrastructure can be listed as follows;

1. Although there is an electricity infrastructure in the housing area, there is no dirty and clean water infrastructure;
2. Lack of any natural air conditioning, thermal insulation in shelter tents;
3. Lack of privacy in shelter tents;
4. Lack of hygiene conditions of cooking areas;
5. Lack of hygiene conditions of bathroom and toilet places;
6. Lack of furniture (table and chair) in the shelter tents so that the children can continue their education and do their homework;
7. Lack of children's playgrounds;
8. Lack of floor pavement outdoors

How the social infrastructure is provided does not always refer to a visible situation in the field. However, it may be partially visible by the presence of socializing spaces. The main problems identified regarding social infrastructure can be listed as follows;

1. There are no social spaces where workers can gather;
2. Workers can only reach the nearest settlement by means of a vehicle. This prevents them from contacting the locals and they are unable to socialize;

3. They complain that they are ostracized by locals;
4. To ensure that children's education was not disrupted, a school service was hired by an employer, and the children were taken to school and brought back, but their education schedule was interrupted because they changed two schools during a year;
5. Families have young children, so when the parents work in the field, the youngest family member is cared for by other children 3 to 4 years older than him, and this disrupts the education of children in educational age.
6. The socialization area of children is only the areas outside the shelter tents.
7. Health problems can be postponed since they are 5km away from the nearest health centre except for the small emergency first aid unit.

As a result, although the findings are focused on the housing problem as shown above, seasonal agricultural workers are also lacking in many issues in the field they work in terms of socialization requirements. Children are undoubtedly the most affected persons by seasonal agricultural labour. The field study reveals a frame of problems that match the seasonal agricultural labour problematics revealed by nationwide surveys discussed in the first chapters of the study. When the problems in other works are examined, positive differences can be noted, such as the provision of electrical infrastructure for the workers of the area, the provision of metal structures for the construction of housing units by the employer, and the provision of a building with a limited but stable public toilet and shower for the use of the workers. However, most of the workers in the area reported that they were satisfied that their work was continuous for the following years as well as the wages they received. The survey found that no family, especially women, was satisfied with housing problems. The education of children is the subject of concern for families, although it is not at the top of their problems. The infirmary operates as a centre that responds to urgent health problems, and regular physician assistance can be obtained. Vaccinations of children are carried out in the field.

After these findings, solutions for housing problems in the field were developed within the scope of the Design Studio with Anadolu University Architecture Department students, and the above projects were developed by discussing various concepts based on user-geography-needs.

Sustainable architecture was discussed through design parameters such as user-centred design, natural air conditioning, conditions for the improvement of physical comfort with the use of the courtyard, use of durable materials, mobility, easy installation, economical design, easy storage, flexible space and the use of flexible furniture, and adaptability. In addition, places such as socialization research centres, muster areas, health centres were designed on the scale of the layout plan.

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This study defines semi-temporary housing through seasonal agricultural workers. As a result of the inferences of this study, the design concepts of the proposals for seasonal housing or semi-temporary housing type can be summarized as follows:

1-Convenience: Easy to install, transportable, easy storage;

2-Flexibility: Spaces with more than one function; minimum area and maximum use; the ability to be articulated new spaces when necessary

3-Economic: Optimum economic cost;

4- Sustainability: Use of materials converted from waste material

5- Ensuring physical comfort conditions: Providing climate-compliant, ergonomic, privacy-ensuring conditions

6- Spatial designs that will strengthen socialization; Use of the courtyard, Suggestion of social spaces, Developing the sense of belonging through space.

This study identified the problems of the working area of seasonal agricultural workers and aimed to transform and improve the current situation through architectural solution proposals in this direction. When examining the problems, it was found that there were similarities with other areas of study. Today, it has been shown once again that the lack of physical and social infrastructure of seasonal agricultural workers continues in our country. However, if the relevant institutions of the state are functioning and working with local governments, the recognition of seasonal agricultural labour will be provided first and then funds for the solutions to housing problems will be produced. The solution to the housing problem should not be provided by seasonal agricultural workers, but necessary works should be done to make it a policy of employer and state. Otherwise, the current situation will remain an ongoing form of unhealthy housing, which is the way seasonal agricultural workers produce their own solutions.

FINANCIAL DISCLOSURE

The authors declared that this study has received no financial support.

ETHICS COMMITTEE APPROVAL

Ethics committee approval was not required for this article.

LEGAL PUBLIC/PRIVATE PERMISSIONS

In this research, the necessary permissions were obtained from the relevant participants (individuals, institutions and organizations) during the survey, in-depth interview, focus group interview, observation or experiment.

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Resume

Dilay Güney, graduated from MSÜ in 1988 and started her doctorate education at ITU. Obtained PhD Degree in 2003. Obtained the title of "Assistant Professor" at 2005, "Assoc. Prof." title in 2014, Prof. Dr. title in 2020. Research interests are architectural education, contemporary design issues, and Istanbul research.

Fatma Kolsal received her Bachelor of Architecture degree in Department of Architecture at Middle East Technical University in 2006. She completed her Master of Science degree in building science in 2015 and PhD studies in 2020. Research interests are design process, creativity, design thinking, architectural design studios.

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