

Designing the House of Union Trades in Kerman

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Abstract

Creating and reproducing sociable public spaces as a place for social interactions in order to create sustainable urban environments, is one of the goals that has received much attention in the recent decades. Due to the dispersion of guild houses in the city of Kerman, the present study was conducted regarding the design of Kerman's Guild House with the approach of social interactions to investigate and identify the social interactions and behaviors of the guild houses, analyze problems and recognize the structural aspects of the guild house and achieve a reference pattern for designing the guild houses that can be used at different levels from big cities to small towns. According to the theoretical foundations of guild houses and the approach of social interactions as well as the climatic conditions of the city of Kerman, a design was conducted to enable citizens of Kerman to use the guild house for handling their guild affairs by having an integrated and appropriate space.

Key words; guild house, architecture, social interactions, the city of Kerman

Introduction

Creating and reproducing sociable public spaces as a place for social interactions in order to create sustainable urban environments, is one of the goals that has received much attention in the recent decades (Panassenko, et al., 2021; Alghamdi, et al., 2021). However, due to various reasons such as a tendency to mechanical life, the widespread presence of vehicles and the change in the city's appearance due to the dominance of cars in the urban space, the increase in the movement speed, the separation of people from public spaces, ignorance of social, cultural and identity values hidden in public spaces, neglect to preserve and enhance the collective life in the previous decades, some of these spaces have lost their importance and function in different urban scales (Phan, 2021). These spaces mostly do not correctly respond to the needs of humans as a social being, and people only look at urban spaces as a way to pass. Public spaces have lost their social dimension over time due to the absence of citizens. In fact, instead of inviting people to pause, attend and establish social relations, these spaces encourage them to pass by, and the experience of encountering others, the sense of belonging to the society, face-to-face meetings and social interactions do not happen properly anymore. The use of public spaces and offices is an important part of daily life, and public spaces act as places of interaction for people. (Lars & Gehle, 2004)

The main function of public and administrative space is to provide and facilitate the presence of people, hence its social and cultural aspects have a special place. (LabibZadeh, 2011). As the most important factor in the dynamism of urban spaces, humans need a proper platform for effective presence in public spaces. Responding to humans' social needs and providing them with necessary opportunities in order to gain social experiences, requires the existence of physical space and setting; public space is considered a huge capacity in response to this aspect of human life in urban societies. Participation means creating some kind of correlation, belonging and collective effort among member of society in order to achieve a fair social system. Participation can include all members of a working group or can only occur between two people. When all members of a working groups, take part in a

certain topic, more information is available to them and different opinions are presented by the group members. (Zarghami, 2010)

Participation is the mental and emotional involvement of people in group situations in a way that incites them to help achieve group goals and share the work responsibility (Zandieh 2019). Despite the conflict of interests of individuals, participation can be beneficial for all involved parties. Participation is a complex process with double strategic meaning. In other words, participation is a strategy to improve the economic-social system's status and needs the abilities of social actors to understand the value and conflicting interests and uses a discussion attitude to improve the social system. (Dinarvand, 2011).

William White in the book "social life in small urban spaces" looked for ways to increase liveliness and presence of people in urban spaces and in the "Street life" project, set the themes of anthropology, scientific ethnography and cultural studies as the main subject of the project and ultimately defined street life as "where People talk to each other for hours or have long goodbyes" and this causes the growth of urban behaviors (Khodabakhshi, 2011). Urban designers have agreed on the necessity of people's presence in urban spaces and each has clearly suggested a way to increase this presence in order to create urban behaviors. Regarding what is the relationship between urban spaces and citizenship behavior, most of the primary research conducted in the field of citizenship behavior and environment shows that their main purpose has been to identify the behaviors that people have shown in organizations and institutions, the citizenship behaviors although in the first evaluations have been neglected but the research were effective on improving the efficacy of the behaviors of the urban community. (Bienstock, 2011).

In the meantime, it should be noted that the role of the organization and related trade union activities in the formation of urban communities has been very prominent and obvious for a long time. The transformation of social life from nomadic and rural stage to the urban life, necessarily led to the emergence of new professions and occupations, which the needs of the society, the talent and creativity of those working in these professions and occupations, increased day by day. On the other hand, due to nature and habit, another group becomes interested in some professions and make that profession their profession and develop it. among the people who have the same type of work, **commonalities** have emerged that make them closer to each other and these **commonalities** cause the connection and formation of groups with similar professions, which are called guilds.

The union trade organization is the regulator of the affairs of the trade or profession in front of the members, and for this reason, has certain powers, the most important of which are: issuing the employment permit, taking disciplinary decisions against the members, establishing bylaws related to the profession, etc. Of course just as the trade union has duties towards the organization and its members, the government and the members also play roles towards the organization. Of the most important functions of the guild chambers is to creation fusion and interaction between the triangle of people, marketers and the government. Controlling the organization and providing the ground in order to forming and enhancement of the organization and of the most important duties of the members are: cooperating with the organization, complying with the systems and laws. Guild/ trade union organizations have certain ... and managers of these organizations are usually chosen by the members who are the members of the people and public communities, and the government does not interfere unless in exceptional cases. in the end, it should be noted that the formation of trade unions which in itself is a good example decentralization of public and technical services. In addition to creating order and discipline among the professional community of the country and providing public benefits, reduces the burden of the government's responsibility in economic and social fields.

But since this important institution in every city and every province has sub-branches or so-called smaller units called trade unions, and each trade union is separately related to certain trades and

professions, which makes a percentage of the population of each city and community. As a result, it can play an important part in directing the commonalities of this class both politically-economically and culturally. therefore, the importance of gathering these guilds and making the best possible use of this practical potential in the formation of socially oriented interactions is more tangible. Creating a guild house can be a place to gather all trade unions, and consolidate and synergize the potential of this group in educational, recreational, management, political, economic and especially social fields which in this research the social approach and interaction with society will be studied.

Trade Union

The increase of trade unions and the great tendency of different classes of society towards occupation in these unions have caused the formation of more than one and a half million trade unions in the country. There have been many sayings regarding the guild society and there have been many criticisms and reviews, but unfortunately, despite the importance and the key role of guilds in the society, no accurate expert activities and the use of scientific research on the role and importance of the guilds' activity in the country's economy have yet been conducted. Therefore, the discussion of guilds with the long historical background suffers the lack of research and the lack of accurate and consistent statistics which should somehow be solved by the responsible organizations and administrations and the existing gap in this field should be resolved. (Ghayoumi, 2012)

Trade unions in addition to protecting their own interests, work to collect the government revenues and supervise the trade unions through the creation of trade organizations including unions and trade associations. trade Unions. According to the trade union law, unions and the ... have duties and responsibilities in relation to people and the government. In this sense, examining their performance and providing suitable suggestions and solutions for their dynamism is of much importance. (Ghayoumi, 2012)

In connection with trade union organizations, two theoretical points are to be considered; first, from an organizational aspect almost all of these organizations are run in a federal and confederal way meaning the advanced decentralization methods.

Second, the mission of these organizations which in fact are considered to be the private social sector, is to defend the interests of the members in particular and to defend the society and cooperate with the government in general. In general, guilds and trade organizations have an important role in the economic and social affairs of the country. On the other hand, in addition to trade unions, the performance of trade unions has important effects in relation to the people and the government and since their performance is directly related to the structure and formations of such organizations, they are of particular importance. (Kazemi, 2008).

Trade unions are organizations that regardless of political ideology, religion, and gender and beliefs, defend and support career and professional goals of the individuals. Trade unions are necessary in terms of development, but the experience of development in our country shows that since they are imported (such as adjustment policies taken from the World Bank) they are implemented in our society in the same way. In our country the private and public sectors, don't have the necessary efficiency. According to Adam Smith anytime the private sector's profit is increased through production, social profit is also achieved therefore, private interest and social interest will be related to each other.

Social interactions

the urban settlements from before modernism, public spaces like city squares and markets, have been a platform for social communications, and in fact were considered to be places consisting of social interactions of many of the people who made them possible (Mohammadi, 2012).

Also, these open spaces help people to gain a sense of trust and reliability and increase the sense of association and belonging in people. In fact, these spaces are more than just a place for passive presence. (By differentiating between public space and urban space, only those spaces that have the possibility of interaction and establishing social interactions are evaluated at higher levels as urban spaces. In a study done on more than a thousand public spaces in different countries of the world, it's been shown that four fundamental factors are of higher importance in measuring the quality desirability and condition of urban public spaces. (Moshiri, 2009)


The effective factors on social interaction



The effective factors on improving the physical aspects of the public spaces such as monuments, stairs, fountains and other effective factors in encouraging humans to interact and be present. The determination and integration of space, dimensions, proportions, flexibility, form, geometry, material, confinement, frameworks, physical and spatial continuity is known to be effective on human's perception. PSS which is an organization that researches the public space planning, considers appropriate opportunities for sitting, pausing and pondering more in space, central spaces for gathering people like bus stop, playground, dining spaces, ... , inviting entrances and accessibility to space in terms of visual and physical, prediction of functional elements alongside their aesthetic aspects, paths and proper spatial communications in directing people to inside, spatial readability and clarity, controlling the accessibility of vehicles and the road safety, definition of frameworks and the identity of the walls, connection with the urban transportation system and predicting inviting activities as effective factors in proper public space response. In order to providing the human need of being loved and being together it requires a physical setting and public urban spaces have the most capacity in this sense. Quiet atmosphere, the existence of natural factors, space privacy and control of vehicles are effective in the sense that they provide the human need for rest (Mir Hosseini, 2012).

The human need is based on direct touch with environment, expressing the direct experience of space, people and social activities such as interaction with acquaintances, gatherings, walking, playing, Recreation and sports along with it, physical activities, the possibility of competition, ... which has a direct role on creating the proper mental image of people from space, dynamism and excitement, gaining new experience and environmental education. Of other needs are the possibility of observing and supervise others and the events and occurrences around that is one of the indicating factors in the degree of space responsiveness.

Moreover, the human need for complexity and the possibility of exploration of space could be achieved through the creation of various spaces and landscapes, different activities with the goal of providing variety, attraction and multiple experiences and encouraging movement in the visitor of the space. Need for security can be achieved through factors such as space visibility, likelihood of understanding the space, creating a conception of the place and aesthetic values of the place, and finally controlling the space with various mechanical and natural shapes (Rezania et al, 2012).

Table 1: case studies

	Name of the project	Picture
1	The new building of the Iran's Parliament Building Baharestan complex	

2	The Jahan-Nama Tower, Isfahan (negative example)	
3	Hafezieh guest house	

Research Method

The present study is done in two parts as follows: theory and practice. The first part is done through library method and field studies. By using library methods, a literature review, case study review and a study of successful cases of users was studied and then, the standards and regulations were examined and the components related to them were extracted. Finally, the results obtained from previous parts were concluded and some suitable design solutions were presented. In the practical stage, after identifying the subject, choosing the site location and a complete site analysis, according to the need of the users and a precise planning, the list of spaces and physical planning were prepared. The data collection for the first part in this study was implemented by library method. the primary information was collected through the review of the texts and resources in hand, visual documents, note taking and choosing the themes.

Findings

Understanding the climate of the city of Kerman

In this climate, which includes most of the semi-tropical regions, the air is very dry due to the wind. Direct sunlight is intense in these areas. most of the year The sky in these areas is cloudless but usually in the afternoon due to heating and movement of air layers close to the ground, fog and dust storms appear. Low humidity and the absence of clouds in the sky make the air temperature changes range in these areas very large. In summer, the sun's rays heat the earth's surface up to 70 degrees Celsius during the day. While at night, it reaches 15 degrees Celsius or lower. Winters are harsh and cold and summers are hot and dry. therefore, a semi-desert and desert climate can be seen in it.

The central, eastern and south-eastern lowlands of Iran have a dry desert climate. There is a big difference between summer and winter air temperature, as well as a big difference between night and day air temperature in summer. Dasht-Lut region has the lowest relative humidity in Iran, which is most probably the hottest region.

Kerman province is affected by various regional and local winds. The blowing of these winds causes its weather to undergo many transformations and changes. These winds are mainly monsoon and dry

and blow in the months of March, April and May, and their direction is from southwest to northeast and east. These winds bring a lot of dirt and sand with them to the city of Kerman and cause the relative humidity of the air to decrease. Also, western and northwestern winds cause rain in winter and spring. Table (2) shows the amount of wind in Kerman city in 2015.

Table 2

Name of the wind	Type of the wind	Direction	Blowing season	Blowing duration	Wind speed	Quality
Qibla	Regional	Sotheast	All seasons	intermittent	high	Severe and damaging
North	Regional	North	Late spring to fall	intermittent	Medium	Cool air
Shahdad	local	East	Four seasons mostly" July August	intermittent	Low	harmless

Choice of material in hot areas

The most important factors that determine the characteristics of suitable building materials for hot areas are the maximum daily air temperature and its fluctuation range. The amount of sunlight absorbed in the wall is another important factor that depends on the location and color of the outer surface of the wall. And the heat capacity is the most important characteristic of building materials, as well as the heat resistance of the wall, it is effective in adjusting the heat transfer from the outer surface to the inner surface. Of course, the amount of heat transfer depends on the maximum temperature of the outer surface of the wall - which is a function of the air temperature and the amount of solar radiation absorbed on the wall. But the effect of increasing these two temperatures - surface temperature and air temperature - is not the same. Because the air temperature fluctuation period is 24 hours, but the duration of sunlight on the walls is much less. As a result, the effect of increasing the temperature of the surfaces caused by sunlight in the thermal conditions of the indoor air of the building is less than the effect of the same amount of increase in the temperature of the outside air in the thermal conditions of the indoor air. The thermal capacity of building wall materials is very effective in adjusting its internal air fluctuation - which is related to the increase in temperature of external surfaces due to sunlight. As a result, the heat capacity value of the wall materials is more related to the increase in surface temperature caused by sunlight and the range of air fluctuation than to the maximum air temperature. Of course, in determining the suitable building materials in these areas, one should pay attention to the fact that choosing the right materials for the building depends on the size of the windows and the quality of their awnings. If the windows are small and their canopies are effective, the heat gained by the building is usually the result of transfer from its walls and as a result, the thermal resistance of the material becomes more important than its thermal efficiency in minimizing the excess heat of the indoor air. In these conditions, a material such as light concrete with a suitable thickness based on the climatic conditions of the place is the simplest and most economical building material but if the area of the windows is relatively large or the awnings do not properly protect the windows from sunlight, in this case, the thermal capacity is more important than the thermal resistance. In such conditions, bricks, dense concrete or clay with a thickness of about 20 to 40 cm are useful. Therefore, we conclude that the best type of wall in hot areas is composite walls that include an insulation layer close to the outer surface and a layer of heavy materials in the interior. In short, useful materials for keeping the building cool naturally are: Concrete walls with high thermal

capacity, whose outer surface is covered by a thermal insulation layer such as rock wool or expanded plastic, which themselves are covered with anti-moisture materials. (Kasmaei, 2008)

Criteria and standards of office design

The required office spaces are calculated in two parts: 1) the specific space for people in the form of (standard individual space * number of people) + the share of additional needs + a factor (usually 15%) for the main commuting. 2) The space required for each employee is calculated based on factors such as the type of work, the use of equipment, the level of privacy, machinery, the amount of clients and warehouse needs. (Neufert, 346)

According to the Neufert's standards for the dimensions of desks, tools and circulation space, as well as according to the research carried out for the division of work areas, the number of people and their classification, and the job category based on the 178th edition of Office buildings Design criteria. The standard design for the offices of the Union Trade House has been done. The architectural classification of the occupational groups of the House of Guilds in Kerman to prepare the number of employees per capita according to table (3) (source: the author)

Table 3: Occupational group (Source: Author)

Architectural Classification	The number of employees of the House of guilds
Occupational group 10	1
Occupational group 9	2
Occupational group 8	72
Occupational group 7	2
Occupational group 6	69
Occupational group 5	5
Occupational group 4	255
Occupational group 3	174
Occupational group 2	2
Occupational group 1	20
total	604

All of the spaces in an office building are classified in 5 groups:

Group 1 (main spaces): the spaces that the main office work is directly done. Such as: Single to multi-person expert rooms, group work halls, meeting rooms, current archive (in direct connection with the administrative staff), photocopier location, daily storage, consumables and similar items

Group 2 (main dependent spaces): the spaces that are designed to facilitate and provide services and are formed alongside the spaces of group 1, such as: conference hall, library, training classes, telephone center, information, security, centers Preparation of microfilm, computer, duplicating, static archiving and the like.

Group 3 (welfare spaces) refers to the spaces that are provided for the welfare of employees and clients in the office building and are formed next to groups 1 and 2, such as: prayer room, canteen, pantry, cooperative store, first aid center, toilets and similar cases.

Group 4 (support spaces)

spaces that are planned to support activities and administrative services and are formed indirectly and indirectly next to the spaces of groups 1, 2, 3, such as: Equipment repair, car repair shop, main, secondary and scrap warehouses, staff locker rooms and showers, cleaning room services, facilities and similar things.

Group 5 (circulation spaces) refers to the spaces for connection between the mentioned spaces and the

infrastructure levels (walls and columns) are foreseen, they are: a: horizontal circulation in the floors.
 B: Vertical circulation between floors. (Publication 178 of Office Buildings Design Criteria)

Table 4

Calculation of the built up area of group 1 (main spaces)

	Name of the space	Per capita base (square meter)	number
1	Occupational group 10	29	1
2	Occupational group 9	21	2
3	Occupational group 8	15	72
4	Occupational group 7	12	71
5	Occupational group 6	9	69
	Occupational group 5	7.5	5
6	Occupational group 4	6	186
7	Occupational group 3	4.5	176
	Occupational group 2	3	2
8	Occupational group 1	1.5	20
9	Conference of 100 people	0.9	100
	Conference for 50 people (4 rooms)	0.9	0.9*200=1800
10	Meeting hall for 500 people		
11	Prayer room	1.3 1.2 Staff capacity	604
12	Buffet up to 100 people	1.2	50
13	Board room for 12 people for each trade unit	2.1	25.5*69=1738.8
15	Copier for each trade unit and main building	3	78
16	Staffroom	1.2 every	30

		20 people	
17	pantry	0.06	604
18	first aid room	0.06	604
19	W.C	Every 25 people 3.6	25
20	Main warehouse for each union trade and main building	15	5
	Training class of 100 people		
21	Dispute resolution room (8-person meetings)	1.5	552=69*8
	Commission rooms	5	
21	parking	Every 10-15 employees 21	23

Calculation tables of required areas for design

In order to calculate the desired square footage, the above tables have been used based on the publication 178 of the Management and Planning Organization of the country, office buildings design, and according to the concept of the plan, the tables are classified into 6 groups, which include group 1 of guild chambers, group 2 of distribution unions, group 3 is production unions, group 4 is technical service unions, group 5 is service, group 6 is welfare and parking services.

Calculation tables of required areas for design

Table 5: Group 1 calculation of the net area of the guild hall building

Group 1		Type of space	Space capacity (person)	per capita basis	Unit area	Number of units	total
Building group	row						
The spaces in the guild hall building	1	The head of the chamber of guilds	1	29	29	1	29
	2	The first vice president of the chamber of guilds	1	21	21	1	21
	3	The second vice president of the chamber of guilds	1	21	21	1	21

4	Manager of guilds Bank	1	15	15	1	15
5	Inspection management of the Chamber of Commerce	1	15	15	1	15
6	Head office manager	1	15	15	1	15
7	chamber of Commerce Inspection Deputy	1	12	12	1	12
8	Deputy of guilds Bank	1	12	12	1	12
9	Financial Affairs Manager	1	75	7.5	1	7.5
10	Director of the house secretary	1	7.5	7.5	1	7.5
11	Director of Public Relations	1	7.5	7.5	1	7.5
12	Director of Informatics Department	1	7.5	7.5	1	7.5
13	director of Education Department	1	7.5	7.5	1	7.5
14	Accountant for guilds Bank	1	6	6	2	12
15	Chamber of guilds inspector	1	6	6	40	240
16	municipal business and occupation tax	1	6	6	2	12
17	Finance staff	1	6	6	3	18
18	Informatics department employee	1	6	6	2	12
19	Clerk of the house secretary	1	4.5	4.5	3	13.5
20	Public Relations Officer	1	4.5	4.5	2	9

21	Education department employee	1	4.5	4.5	2	9
22	mobilization room	1	4.5	4.5	2	9
23	Archives of the Chamber of Guilds	1	4.5	4.5	2	9
24	Guard	1	3	3	2	6
25	Information	1	1.5	1.5	1	1.5
26	Secretary's correspondent	1	1.5	1.5	2	3
27	Correspondent of guilds Bank	1	1.5	1.5	1	1.5
28	Driver	1	1.5	1.5	3	4.5
29	janitor	1	1.5	1.5	3	4.5
30	Installation technician	1	1.5	1.5	1	1.5
31	Conference room of 100 people	100	1.2	120	1	120
32	Meeting hall of 500 people	500	0.5	250	1	250
33	Copying machine	1	3	3	9	27
34	Staff rest	91	Every 20 people 1.2	4.55	5.46	5.46
35	pantry	91	0.06	5.46	1	5.46
36	first aid	91	0.06	5.46	1	5.46
37	toilets	91	Every 20 people 3.6	3.64	13.10	13.10
38	Main warehouse for each union trade and main	15	1	15	1	15

		building					
	39	Training class of 100 people	100	1.9	190	1	190
	40	Commission rooms	1	4.5	4.5	4	18
The sum total of the guild hall building	1188.48						

The net space of the building of the guild hall building: 1188.48

45% of circulation space: 437.31

15% maneuvering space: 145.65

Total: 76.1554 square meters

Table 6: Group 1 calculation of the net area of the distribution union building

Group 2		Type of space	Space capacity (person)	per capita basis	Unit area	Number of units	total
Building group	row						
Distribution union building spaces	1	The head of the trade union	1	15	15	26	390
	2	Secretary for each trade union	1	9	9	26	234
	3	Executive director for each trade union	1	6	6	26	156
	4	Inspector for each trade union	1	6	6	26	156
	5	Accountant for each trade union	1	6	6	26	156
	6	Archive for each trade union	1	4.5	4.5	26	117
	7	Archive for each trade union	50	0.9	45	1	45
	8	12-person boardroom for each	12	2.10	25.2	26	25.2

		trade union					
	9	Copier for every trade union	1	3	3	26	78
	10	Staff rest	Every 20 people	1.2	1.3	1.56	1.56
	11	Pantry	1	0.06	156	9.36	9.36
	12	First aid	1	0.06	156	9.36	9.36
	13	toilet	Every 25 people	3.6	7	25.20	25.20
	14	The main warehouse for any trade union		15	15	1	15
	15	Dispute resolution room (8-person meetings)	1	1.5	12	26	312
Total Of distribution union building	2202.68						

The net space of the building of distribution unions: 2203.68

45% of circulation space: 991.6

15% maneuvering space: 330.55

Total: 3525.88 square meters

Table 7: Group 3 Calculation of the net area of the spaces of the group of production unions

Group 3		Type of space	Space capacity (person)	per capita basis	Unit area	Number of units	total
Building group	row						
Production union building spaces	1	The head of the trade union	1	15	15	14	210
	2	Secretary for each trade union	1	9	9	14	126
	3	Executive director for each trade	1	6	6	14	84

	union					
4	Inspector for each trade union	1	6	6	14	84
5	Accountant for each trade union	1	6	6	14	84
6	Archive for each trade union	1	4.5	4.5	14	63
7	Conference of 50 people	50	0.9	45	1	45
8	12-person boardroom for each trade union	12	2.10	25.2	1	25.2
9	Copier for every trade union	1	3	3	14	42
10	Staff rest	Every 20 people	1.2	1	1.2	1.2
11	Pantry	1	0.06	84	5	5
12	First aid	1	0.06	84	5	5
13	toilet	Every 25 people	3.60	4	14.40	14.40
14	The main warehouse for any trade union		15	15	1	15
15	Dispute resolution room (8-person meetings)	1	1.5	12	14	168
Total Of Production union building	971.8					

The net space of the building of production unions: 971.8

45% of circulation space: 437.3

15% maneuvering space: 145.65

Total: 1554.76 square meters

Table 8: Group 4 Calculation of the net area of the spaces of the group of Technical service unions

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Group 4		Type of space	Space capacity (person)	per capita basis	Unit area	Number of units	total
Building group	row						
Technical service unions building spaces	1	The head of the trade union	1	15	15	20	300
	2	Secretary for each trade union	1	9	9	20	180
	3	Executive director for each trade union	1	6	6	20	120
	4	Inspector for each trade union	1	6	6	20	120
	5	Accountant for each trade union	1	6	6	20	120
	6	Archive for each trade union	1	4.5	4.5	20	90
	7	Conference of 50 people	50	0.9	45	1	45
	8	12-person boardroom for each trade union	12	2.1	25.20	1	25.20
	9	Copier for every trade union	1	3	3	20	60
	10	Staff rest	Every 20 people	1.2	1	1.2	1.2
	11	Pantry	1	0.06	120	7.20	7.20
	12	First aid	1	0.06	120	7.20	7.20
	13	toilet	Every 25 people	3.60	3.60	5	18
	14	The main warehouse for any trade union		15	15	1	15
	15	Dispute resolution room (8-person)	1	1.5	12	20	240

	meetings)						
Total Of Technical service unions building	1111.2						

The net space of the building of Technical service unions: 111.2

45% of circulation space: 500.0

15% maneuvering space: 166.68

Total: 1777.9 square meters

Table 9: Group 5 Calculation of the net area of the spaces of the group of Service unions

Group 5		Type of space	Space capacity (person)	per capita basis	Unit area	Number of units	total
Building group	row						
service unions building spaces	1	The head of the trade union	1	15	15	9	135
	2	Secretary for each trade union	1	9	9	9	81
	3	Executive director for each trade union	1	6	6	9	54
	4	Inspector for each trade union	1	6	6	9	54
	5	Accountant for each trade union	1	6	6	9	54
	6	Archive for each trade union	1	4.5	4.5	9	40.50
	7	Conference of 50 people	50	0.9	45	1	45
	8	12-person boardroom for each trade union	12	2.1	25.20	1	25.20
	9	Copier for every trade union	1	3	3	9	27
	10	Staff rest	Every 20 people	1.20	1	1.20	1.20

	11	Pantry	1	0.06	54	3.24	3.24
	12	First aid	1	0.06	54	3.24	3.24
	13	toilet	Every 25 people	3.60	2	7.20	7.20
	14	The main warehouse for any trade union		15	15	1	15
Total Of service unions building		545/58					

The net space of the building of Technical service unions: 545.58

45% of circulation space: 245.50

15% maneuvering space: 81.80

Total: 872.88 square meters

Table 10: Group 6 Calculation of the net area of welfare spaces

Group 6		Type of space	Space capacity (person)	per capita basis	Unit area	Number of units	total
Building group	row						
welfare spaces	1	The prayer hall	1.20	202	242.50	1	242.50
	2	buffet	50	1.20	60	1	60
Total Of service unions building		302.50					

The net space of the building of Technical service unions: 302.50

45% of circulation space: 136.1

15% maneuvering space: 45.37

Total: 483.97 square meters

Table 11: Calculation of the required parking area

	Parking area	Every 10-15 employees	23	345
		21		

Source: Author

The total office space is 90.9632 square meters

Grouping of trade unions

Table 12: Distribution unions (source: Kerman Chamber of Trades)

order	union name
1	Jewelry
2	Glasses
3	clock
4	Medical supplies
5	andmade carpet sellers

6	Dealers of machine carpets
7	butchers
8	confectioners
9	shoe
10	bag
11	Tire seller
12	Dairy
13	cosmetics
14	Home Appliances
15	Audio and video equipment
16	Car spare parts
17	Motorcycle spare parts and sales
18	Bicycle spare parts and sales
19	Pipes and sanitary equipment of the building
20	Bankers and wholesalers
21	Sell chicken and fish
22	fruits and vegetables
23	Nuts
24	draper
25	Foodstuffs
26	money changer

Table 13: Production unions (source: Kerman Chamber of Trades)

order	union name
1	Glass and mirror
2	Concrete
3	oven
4	Construction materials
5	Copper and handicrafts
6	Aluminum makers
7	Ice cream
8	panel makers
9	Manufacturers of sleep goods
10	Printers
11	Iron door and window makers
12	Tailors and clothing manufacturers
13	Building stone
14	Coffee Shop

Table 14: technical services unions (source: Kerman Chamber of Trades)

order	union name
1	Computers and office machines
2	Photographer and videographer
3	Channel builders
4	Appliances, machinery and agricultural inputs
5	Machine builder and metal lathe

6	Carpenter and furniture maker
7	Apparatus and wheel balance
8	Female hairdressers
9	male hairdressers
10	ironmongers
11	Tool sellers
12	electronic
13	Electricity and electrical appliances
14	battery maker
15	clothes
16	laundry
17	Mechanical installations of the building
18	Building decorations
19	Cabinet manufacturers and sellers
20	oil change and car wash

Table 15: services unions (source: Kerman Chamber of Trades)

order	union name
1	Car repairers
2	Telephone taxi agencies
3	Flowers and Plants
4	fielders
5	bakers
6	car painter
7	Hotel, reception halls
8	Cleaner and room maker
9	food vendors
10	Computer games
11	Cultural products
12	Car exhibitions
13	Real estate consultants
14	Transportation and passenger transportation
15	kebab
16	cobbler
17	Sporting Goods
18	Selling groceries
19	pharmacology
20	Restaurant

According to the number and groups of trade unions, the concept of the plan is based on 3 volumes, volume 1 and the main building of the trade union chamber, volume 2 is a combination of production and distribution unions, which is a total of 40 unions, and volume 3 is technical services and services that are divided in A total of 40 unions.

Conclusion

The site considered for the design of Kerman Guild House is located on 22 Bahman Blvd, which because of the appropriate access is important for the visitors and also the dimensions of the site for further expansion of the complex in the future was considered (figure 1).

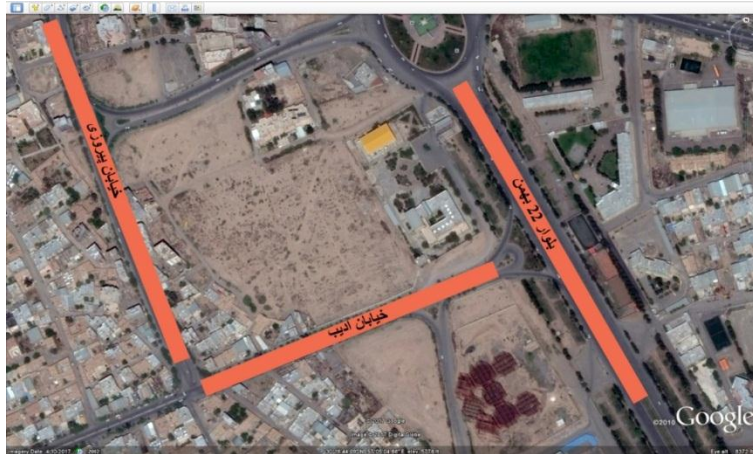


Figure 1 : location of the site (author)

For the current design of this complex, a plot of land with an area of 30,000 square meters has been considered, which is connected from the south side to Adib Boulevard, from the west side to Pirouzi Street, and from the east side to 22 Bahman Boulevard, as well as a secondary access from Khajo Square

The site is accessed through the 22 Bahman Blvd as the 1st grade main thoroughfare and Pirouzi Blvd as the 2nd grade thoroughfare. The main entrance and access to the site will be possible from Adib Street which is located between the two mentioned thoroughfares. Below are the desired range and access around it.

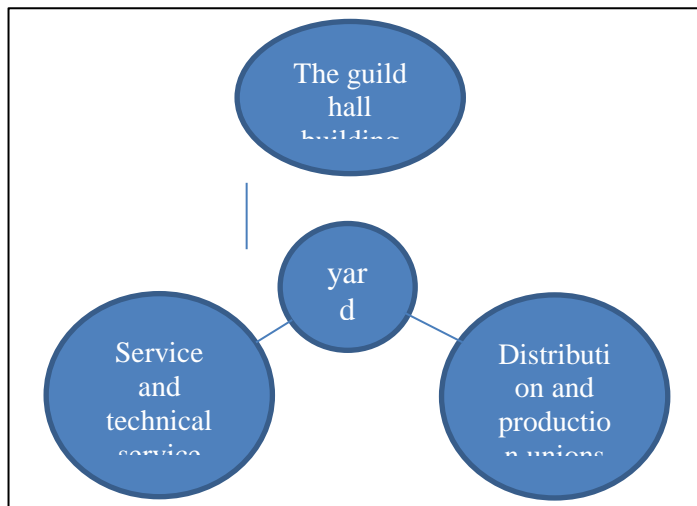


Figure 2: Placement diagram on the site (author)

The process of forming the volumes is driven from the form of a cube which is suitable for the climate of this region. Due to the use of guilds in the past and the traditional nature of this collection, we decided to use traditional architecture in the design, including symmetry, repetition, rhythm, traditional materials, etc.

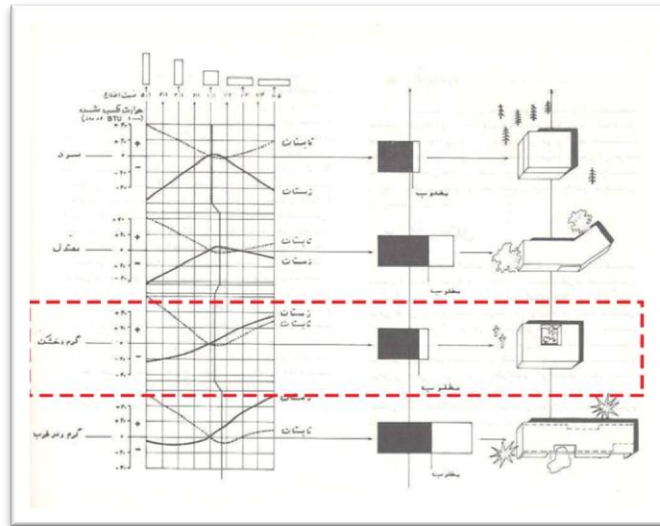


Figure 3: climate- based form design (Kasmaei 2004)

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