

Gender and Zones of Users in Traditional Berber M'zab Houses

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Abstract

Houses are more complex phenomena than accounts based on mode of architectural style. They usually encode a wealth of social and cultural information. In this paper, we examine the spatial configuration of domestic spaces of traditional houses in the M'zab valley in Algeria. We are interested in analysing the space of the houses syntactically, as spatial domains shaped by gendered social relations. Space syntax method is applied to a sample of houses. The achievement of space syntax analysis is the interrogation of the plan through which buildings reveal social ideology embedded in structural genotypes. The research findings suggest a deeply family-centred culture was reflected in the organization of household spaces. An overview of the houses' sample suggests a prime model, that defines the house as a collection of domains, e.g. male visitors/male and family/female. The empirical findings also, suggest that the houses tend to be divided into two separate domains, one section is exclusively used by the inhabitants and the other is reserved for receiving male guests, thus the configuration appears to modulate the social dynamics of the house's occupants by distancing the hosts from immediate contact with male guests.

Key words: M'zab, gender, spatial configuration, space syntax, domain.

1. Introduction

The aim of this paper is to study the house as a composition of zones of users, and to study the syntactic properties of these zones. The innovation here is to analyse the space of the home, syntactically, as zones of users instead of zones of functions. The consideration of these differences opens up questions about the relation between spatial order and social relations. Space syntax studies the relationship between architecture and society defining space not as a background but as an integral component of social activity. [Psarra S, 2010 :17-29]. The theory of space syntax suggests a conceptual and methodological framework, in which houses, by virtue of the arrangement of space and the resulting pattern are seen to engender different patterns of movement and encounter fields with respect to the different social groups [Hillier B & Hanson J, 1984:223-240].

The interior organisation of the M'zab house separates the space of the family core and the locality of the male visitors or/male members of the family. In general the house consists of different zones, which are occupied by certain users identified mainly with regard to gender. Clearly, the following descriptive material shows differences in the way in which the domestic space is used by male and female to establish their contacts. The fact that differences in space use suggests a relation between the house form and the way in which contacts between and within the sexes are generated and controlled, that is the system of might be loosely called "social solidarities". The understanding of how this is realised through is the main concern of this study. The descriptive material on the social use of space suggests that male and female in the houses may be differently organised in space, and this may have relation whether antecedent or consequent is unknown with the form of the house.

2. Description of the M'zab traditional house

The Urbat, institution in charge of the protection and promotion of the Ksar of Berriane produced a document titled: Plan de sauvegarde et de promotion du Ksar de Berriane [phase I] in which it describes the M'zabite house [Urbat, 1999, p 45]:

“La maison du M'zab est un lieu sacré qui constitue le monde de la femme dans lequel l'homme séjourne. Elle est conçue pour son confort et pour lui faciliter les tâches ménagères. Son architecture est pure et rigoureusement fonctionnelle. Elle est dépouillée de toute ornementation au même titre que la mosquée. Pour préserver l'intimité intérieure la porte d'accès est intercalée par rapport à celle du côté opposé et aucune autre ouverture ne perce sa façade sur la rue, sauf les fentes de la terrasse qui permettent de voir sans être vu. Elle s'ouvre en son intérieur par un petit patio et une terrasse accessible à l'étage, qui assure ce qu'il faut comme aération, éclairage et captage de soleil. Aussi aucune maison ne porte ombre sur ses voisines”.

"The M'zab house is a sacred place which is the woman's world in which man is staying. It is designed for her comfort and to facilitate her household chores. Its architecture is pure and strictly functional. It is stripped of all ornamentation. To preserve the intimacy inside the access door is inserted compared to the opposite side and no other opening pierces its facade on the street, except the slots in the deck that can see without being seen. It opens onto its interior by a small inner courtyard and an accessible terrace upstairs, which ensures it takes as ventilation, lighting and capture sunlight. Also no house shadows on its neighbours. "

The following description is based on the examination of the plans of nineteen houses taken from the K'sar of Beni Isguen in the M'zab valley [see fig 1]. The access from the street to the house is always through the Taskift [see fig 2], or chicane, which plays an important role in the functioning of the house. Opposite the front door, a wall protects the Wast Eddar [which is by no means the largest space in the house] from the view of possible visitors. The door leading to the Wast Eddar is set off from the axis of the front door, and that front door gives direct access to the male reception quarter: the Houdjrat; male reception room on the ground-floor level or the Aali; also male reception room on the first floor. On one side of the Skifa or chicane, there is a room used for keeping the domestic animals. Sometimes in this chicane, there is a recess in the wall in which a hand-quern is kept, allows easy access for the male neighbours who do not have one. Also, water jars used to be kept in this space so that the professional water porters could deliver water to the individual houses without exposing the women to their presence. In most of the examined houses, a morphological feature may be noted; two separate pathways exist to the interior. The first or family path, leads to the Wast Eddar, the large living space surrounded by small rooms [see fig 3]. A staircase links the ground floor to the first-floor consisting of multi-functional rooms, the Ikoumar or arcade portico and the Tigharghart or the upper courtyard [see fig 4]. Another staircase links the upper floor to the Stah or the terrace access to which is exclusively reserved for women.

The second pathway leads up from the chicane through another staircase to the Aali [a separate quarter reserved for the male visitors]. The Aali, which is very richly furnished and decorated, consists of one large room, with usually a small window giving onto the street. Sometimes, a bedroom annexes this male reception room. [See fig 5]

Insert Figure (1) about here

3. Space configuration in the traditional Mzabite house

The survey covered about nineteen house plans in the K'sar of Beni Isguen, which make up part of a research work carried out by myself. All the plans show the ground floor, the first - floor, and if it exists, the second-floor, the accessible terrace and the cellar. The sample is therefore broadly representative of the M'zab house plan types. The space outside, usually a dead-end, an alley or a lane, is represented as a single convex space. Within the interior of M'zab houses, it seems that a niche or a couple of steps may be sufficient to define a separate space, which serves a specific function. This architectural elaboration's have been treated as equivalent to convex spaces. For example, the loom site in the Wast Eddar could be taken as distinct convex space, although it is not clearly delineated spatially in all cases.

Insert Figures (2) (3) (4) (5) about here

The nineteen houses that form the sampling of this research were broken down into their convex organisation. Permeability graphs were drawn for each house from the point of view of the house plot. Therefore plans and justified graphs from the outside have been drawn for each example, in order to clarify the space configuration and permeability patterns of the houses. A syntactic analysis is presented first, on a house-by-house basis, in order to group the houses configurationally, and then a statistical and functional account is attempted for the data as a whole, in order to see if space pattern and space use relate systematically to one another..

Basic syntactic data for the set of examples are tabulated in tables [1] showing the number of convex spaces, space link ratio, the mean integration value, and the relativised base difference factor when the exterior is counted and discounted.

Insert Table (2) about here

4. Zone, gender and spatial configuration

The M'zab house is usually defined into certain domains and zones, which are occupied and dominated by certain users, male/female or/and family members of both genders. The inhabitants themselves like to name the spaces in relation to user gender identity rather than their functions. For instance they say Tisifri which means female residence. They also say Aali, Houdjrat, or Douira; all these terms integrate in their meaning the demarcation of male' visitors zone.

The following describes one of the main spatial features of the M'zab house. It is the gender occupation and use of space of home. This feature, which is seldom found in most of western houses today, is one of the design necessities, in most of the Muslim societies. It introduces the house as a composition of domains and zones of users, which we find interesting to study. The present study examines the underlying spatial structure of home, in terms of zones of users that embed gender codes.

- Home and gender:

The division between male and female in different aspects of life and particularly in the domestic environment is a vital debate among researchers from different disciplines and backgrounds around the world [Rotman L 2009; Rendel et al 2000, Booth 1999; Ahrentzen et al 1989; Rendel et al 2000]. Also, Gender separation was an important dimension of nineteenth-century social relations as evident in the differential use of space. Within domestic residences, for example, private spaces like kitchens were often defined as feminine since they were areas for women's work, including female members of the family. [Rotman, 2007]. Some researchers investigate the length of the occupation of certain domestic function spaces by each gender and/or the types of activities both genders were performing in the same room and within the same duration of time. Irrespective of the chosen focus, they eventually conclude that gender division is, more or less, detectable in the purpose, use and occupation of domestic spaces across cultures.

In the M'zab, gender division is well defined. This division is promoted by means of cultural constraints rather than religious obligations. The house as an artifact of culture, confirms gender classification on the use and occupation of spaces. Unfortunately, there is a confusion and lack of clarity on the input of culture and religion on spatial genders divisions. In many architectural research reports, the spatial position of the female in the house had been interpreted as a segregating and secluding sphere which is embedded in religious tenets rather than cultural norms [e.g. Petherbridge 1987], acknowledging this complexity allows scholars to imagine that the ideologies that shape gender relations are themselves equally fluid and often an amalgam of several related ideals [Rotman, 2009].

The domestic life is what the late Pierre Bourdieu called the "horma" of the Muslim, which should be respected by others, who should not look into, listen to conversations or physically enter other houses without permission from the residents. [Addi L, 2002] Moreover, the movement inside the house and the entry from one domain to another is usually preceded by symbolic gesture. For instance in traditional M'zab male family members usually cough, if they want to get to the terrace, as a sign announcing their coming. The idea is to preserve women privacy.

5. Pattern of space uses of Berber M'zab traditional house

The pattern of space uses is complex, and changes with the absence of men. During the day, however, when only women and small children are present, the domestic space is used much more in common. Women of the household follow the same work timetable and share the Wast Eddar, kitchen and the terrace, and may also share provisions and utensils.

When the men of the household are present, the use of the domestic space alters. One or two rooms are reserved for receiving male visitors and the women avoid them; these rooms [the Aali on the first floor or the Houdjrat on the ground floor] are segregated from those used by the women [see the analysis chapter]. The Aali is on the first level with a separate staircase linking it directly to the outside through a Skifa.

A M'zab woman's life is largely centred in the area around her home as will be described in the following section. Men play little part in the running of the home, and spend much of their time elsewhere. In the M'zab, most of the young men emigrate to the north for work, and have most of their social contacts away from the house [Etherton D, 1971:187]. Despite these separate patterns of activity, the family is prized as the unit on which society rests [Addoun A.D, 1977:51].

6. Users zones

In the field of architecture, and as part of the design process, the spaces of the required building, according to the brief, are usually grouped into particular function zones of, which are related or connected to each other by means of mediator zones. According to Amorim [1997], these zones of functions, for many architectural schools around the world, are "usually" defined as social, private and services. The social zone accommodates the spaces that allow for continuous interaction among the inhabitants and visitors, such as living, reception and dining area. The private zone ensures the necessary seclusion of the family's bedrooms and study rooms. The service zone houses activities related to the production and maintenance of everyday life like the kitchen. These three zones are connected by mediator zones or spaces.

To analyse the architect-designed house as a configuration of function zones might be interesting and acceptable. However, in the case of domestic houses in the traditional M'zab, a labeled space serves more than one function and a single activity. Instead, the house is categorised by the inhabitants themselves, as family/male visitor, and female/male zones rather than in function terms. Thus, it is important to explore the house as user domains or zones instead of function zones, focusing on the socio-spatial aspect of gender.

The layout could be viewed according to the relation between different spheres, domains or zones. The inside of the house could be seen as a relationship between two main domains, Family and male. Furthermore the different function spaces of house could be zoned into four zones, the male zone which is used by the men and their visitors. Then, the family zone can be seen as a combination of three zones in relation to users and use; a zone for the family of both genders to gather, a zone for the personal use of family members, and finally zones that accommodate spaces that are solely for the female. Thus, we can say that the private territory house is a combination of male, family gathering, personal and female in relation to the exterior sphere or the Zenka.

- The exterior:

This is the street or the Zenka, which is defined mainly as the public sphere [see fig 6]. However, the pattern of use of the Zenka is less rigid. The interface of the house and the Zenka allows at all times «surveillance» by women [Donnadieu&Didillon, 1977:71]. This discrete contact between the two worlds [the interior private sphere and the exterior public sphere] becomes more visible when men are at work. The Zenka provides a highly complex interactional world for women in the M'zab. The "Zenka society" exists only for women and children. Its boundaries are indistinct and may vary over time. Women undertake a variety of activities within the Zenka: social, religious, and economic. During the hours that men are at work, women move about rather informally; they go from house to house and from woman friend to another with comparative ease. In some Zenkas, women even gather in passageways to work or to chat. The Zenka seems to be therefore a multifunctional female unit [Fernea E.W, 1975:135].

Insert Figure (6) about here

7. Accommodations, use and analysis

The study will use two approaches. The first approach will discuss the accommodation and use of each domain and zone throughout the nineteen cases. The intention here is to display a deeper understanding of how each domain and zone is used and what spaces [labels] is found in each case of the study. The location of each space into a certain zone is based mainly on the information received from the inhabitants themselves. In the second approach, the house in relation to the exterior spheres [the Zenka], will be examined syntactically, discussing depth, and integration.

Once, consideration will be given to the Zenka as a public sphere and the house as a private sphere represented by the two prime domains [Family and male]. The argument for including and discussing the exterior is based on the fact that the exterior represents the third corner of the triangle of spatial spheres of the three prime categories of users, i.e. stranger, visitor, and inhabitants. The data used in this study, combines the architectural drawings [two-dimensional plans], interviews and personal observations.

8. Syntactic properties of zones

Syntactic analysis of the user zones for each case will be conducted. The first analysis will consider three domains, the exterior stranger domain and the two interior domains of the house represented by the family and male domains. The house will be divided into family and male domains, each domain will include all spaces that are located in it, function and transition spaces. The justified graphs of eleven out of nineteen houses [figs 7-10] illustrate the suggestion models of the sample.

Insert Figures (7) & (8) about here

The nineteen houses were broken down into their convex organisation. Permeability graphs were drawn for each house from the point of view of the house plot. Therefore plans and justified graphs from the outside have been drawn for each example, in order to clarify the space configuration and permeability patterns of the houses. A syntactic analysis is presented first, on a house-by-house basis, in order to group the houses configurationally, and then a statistical and functional account is attempted for the data as a whole, in order to see if space pattern and space use relate systematically to one another. Basic syntactic data for the set of examples are tabulated in tables [1] showing the number of convex spaces, space link ratio, the mean integration value, and the relativised base difference factor when the exterior is counted and discounted.

The main spaces that constitute the Beni Isguen M'zab traditional house are shown on table [2]. The numbering that precedes each constituent space will be used in the description of the house drawings and in the justified graphs.

- Overview for the sample

It is apparent that houses in the sample exploit tree-like configurations to organise domestic spaces. The tree-like houses share the property that movement about the interior and in relation to the exterior is highly controlled and predictable from the layout, a feature which is made of in the way activities and functions are assigned to domestic space. Table [1] shows the basic syntactic properties of the sample. It shows interesting results in SLR measurements of the 19 houses. The Space-link ratio of eight cases [houses 2, 7-8, 10-12, and 16-17] shows no ringiness [they each have a value of 01]. They are tree like structures. While the space link ratio of the remaining cases, indicates a result, which is slightly above 01. One case [house 15], has the highest link-ratio value [1.11], followed by house 14 with a value of 1.10, which indicates the existences of more than one ring. These houses with alternative routes to the upper-floor are those where high integration shifts to the Ikoumar.

Insert Figures (9) & (10) about here

- Accessibility between domains:

The permeability between the two domains [Male and Family] shows that there is one internal link between these two domains [houses 3-6, 13, 16, and 18-19]. All these houses have a ringy structure and spaces from the male domain belong to a ring. The existence of a ring interprets the choice property and the degree to which the relationship between domains are controlled. [Hanson, 1998:78] explains:

"It is these spatial potentials which are used to make a culturally-intelligible pattern of space within the domestic interior".

Notable here is that, the ringy structures enable the head of the family or the male members to choose to enter to the Aali directly through the family domain. This choice offers easy and direct accessibility between the two domains, yet this choice of movement is still controlled by social codes. In the M'zab houses, the distinction between the two domains is sharp, and mobility is more controlled. May be the mobility between the two domains is very little also.

In the case of one internal permeability link, the study shows that, in most of the cases the link is made through either the Ikoumar [houses 4-5, 13, 16, and 18] or the Tigharghart [houses 3, 6, and 19]. The result here seems to be surprising in that, the West Eddar is seen not only as a family gathering domain but also as a female domain since most of the female activities take place there.

Observing the accessibility between each domain and the exterior, we have found that in two cases [houses 9 and 14] each domain has a separate access to the outside world. The remaining houses of the sample have single exit to the exterior, where the two domains have the same access to the outside world through the Skifa .

- Depth property:

In the case where there is a Houdjrat or Douira [male reception spaces on the ground level], the male domain is shallow [step 2 from the exterior] than the rest of the house accommodations [the family domain]. In the case where there is an independent access to the Houdjrat or Douira, the male domain is even shallower at step 01 from the exterior. In general, the function spaces within the male domain of the house are a bit shallower than the function spaces of the family domain which includes the West Eddar as well as the Ikoumar and the Tigharghart [see the justified graphs of the whole sample]. By comparing and testing the mean depth of both domains [Hanson, 1998:28], the study found that in all cases the mean depth of the family domain is greater than the the male domain, from the exterior.

9. Discussion

Spaces of the house are usually defined according to their functions. In this study, however, they are assigned according to their users. This paper has explored the user identity and gender designation of the various spaces of the house. In general the spatial relationship of the house and its surroundings can be seen as a relationship between stranger's exterior sphere and inhabitant's interior sphere. The interior of the house can be seen as an integration of two prime domains, family and male. This can be interpreted further as interaction interior zones in contrast to the zone of exterior. The suggested model of the M'zabite house can be seen as sequential and parallel in relation to the carrier or exterior sphere.

The parallel model suggests that the two spatial domains are equal, but different, in that they are occupied mainly by each gender. One of them is for the exclusive use of the male guests, and the other is predominantly for the female members as well as a reception area for the female guests [the West Eddar and the Tisifri]. In relation to the exterior, both domains are shallow and are rather in a front location/position to the exterior, yet they are in a back position relative to each other. The sequential model which is found in one limited case [house 10 from the Ksar of Beni Isguen] displays a front and back positions in relation to the exterior. The front is surprisingly for the family/female domain and the back is for male domain.

The first approach of the study investigates the use and occupation of the domains and zones. The study analyses the spatial domains of the family [gathering and personal], female, and male users. These usually consist of a number of functional spaces. It shows that, both male visitors and male inhabitants use the male zone. The female inhabitants have a more defined zone.

In the second approach, the study has adopted the syntactic methodology, in cases where the analysis concerns the family, male, and exterior domains. The study shows that the family domain is always more integrated than the male domain and the exterior. The results also show that the female zones, the spaces that are defined as such, are well integrated.

The results suggest that the idea, which many researchers adopt when describing the spatial sphere of the female inhabitants of the Muslim house, as secluded and segregated, needs to be re-defined. For instance, Petherbridge [1987:196] discussed the dominant emphasis of the Muslim house, on the privacy and the seclusion and segregation of women as two parallel design elements of the Muslim house, although he did not describe the spatial configuration of the seclusion and segregation of female members. The author did not distinguish between culture and religion.

In addition, and in relation to the exterior, this study is suggesting the rethinking of the terms used to describe the location and occupation of the female in the house [as back or front], bearing in mind both the sequence and parallel models. Instead this term of back and front is rather a relative within the interior of the house, rather than within the interior-exterior relationship.

The study proves that, although the nineteen plans interpret different typological layouts, and that the number of domestic spaces for each domain and zones are not constant, there is a pattern of sorts in the configuration properties of, and between, the zones throughout the sample. It also shows that the spatial domination of the female is well integrated in the house. The whole study suggests that, the spatial pattern of home expresses the cultural and social events of the users, regardless of house-type, shape and size of the spaces.

10. Conclusion

Houses are more complex phenomena than accounts based on mode of construction or architectural style. They usually encode a wealth of social and symbolic information which is then taken for granted by their occupants, for whom they constitute a shared framework of spatial patterns and social practices that shape everyday life and which therefore seem natural and familiar. Houses may encode several perspectives on everyday life which sometimes co-exist without seeming to be aware of one another. However social phenomena are durable in that they leave traces of the material form of their existence in the way in which the pattern of domestic space is arranged, in the way in which objects are found in different locations in the house and in the distribution of activities and behaviour which can be observed there over time. Spatial configuration can therefore be decoded so that the social and symbolic information are retrieved directly from the study of how houses are organised and used. These spatial descriptions speak directly to us about how the social universe is constructed and reproduced in everyday life.

A general overview of the house of the sample suggests a prime model, that defines the house as a collection of domains, e.g. male visitors/male and family/female. This model is built on socio-cultural norms that are based on the empirical findings. These latter, suggest that the houses tend to be divided into two separate domains, one section is exclusively used by the inhabitants and the other is reserved for receiving male guests, thus the configuration appears to modulate the social dynamics of the house's occupants by distancing the hosts from immediate contact with male guests. The analysed sample shows a tree-like structure of M'zab homes, however in some cases, the houses seem to be rooted to their sites in permeability with a ringy root passing, through either, the Ikoumar or The Tigharghart. The ring from the Skifa through the Aali to the Ikoumar or the Tigharghart permits a degree of the tuning of the host-guest relation in the houses.

Our understanding of the significance of space in structuring social relations as demonstrated in this research work has been greatly increased by this empirical research. The sample justified graphs reveal the tree-like configuration of these traditional homes. Different functions occupy separate branches. The investigated houses tend to be configurationally integrated, deep core and tree-like and offer no possibility of fine-tuning to take account of different social situations. There is a strong emphasis on keeping the dwellings deep from the exterior, so they are not easily accessible. This "M'zab" planning strategy is associated with spatial configuration in which no direct casual encounters between the residents and the visitors are seen as valuable opportunities for social exchange.

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numbering	Constituent space	Domain
X	Exterior	Exterior
1	Taskift or chicane	/
2	Intermediatespace	/
3	Tissounane or stairs	/
4	Houdjra,Douira	Male
5	Dahliz or cellar	Family
6	WastEddar	Family
7	Tisifri or women’s living room	Female
8	Inayen or Kitchen	Female
9	Ajmir or toilets	Individual
10	Lamghassal or traditionalbathroom	Individual
11	TazekaN’ElAoulet or storage room.	/
12	Ikoumar or arched portico [1 st floor]	Family
13	Tazeka or room	Individual
14	Tigharghart or uppercourtyard	Family
15	Aali or first-floor male reception room	Male
16	Tazdit or animal room	/
17	Stah or terrace	Female
18	Water jars	male

Table 2: main constituent space in the houses sample

House N°	C.S	SLR	M.D	IntegrationWithExterior			BDF*	IntegrationWithout Exterior			BDF*
				Mean	Min	Max		Mean	Min	Max	
1.	28	1.07	4.62	1.10	0.51	1.54	0.79	1.09	0.50	1.54	0.78
2.	30	1.00	5.00	1.39	0.76	2.26	0.78	1.42	0.77	2.34	0.77
3.	20	1.05	4.15	1.28	0.73	1.77	0.85	1.29	0.71	1.75	0.85
4.	34	1.05	5.24	1.31	0.82	1.99	0.85	1.31	0.80	1.98	0.84
5.	27	1.03	4.69	1.24	0.72	1.76	0.84	1.24	0.73	1.75	0.85
6.	27	1.03	4.96	1.47	0.79	2.74	0.70	1.45	0.78	2.93	0.66
7.	17	1.00	5.00	1.40	0.81	2.98	0.85	1.35	0.79	1.93	0.85
8.	18	1.00	3.82	1.09	0.56	1.55	0.81	1.08	0.58	1.54	0.81
9.	23	1.04	4.72	1.28	0.72	1.90	0.82	1.27	0.73	1.89	0.83
10.	22	1.00	5.09	1.61	0.98	2.35	0.85	1.61	0.96	2.35	0.85
11.	17	1.00	4.62	1.31	0.68	2.04	0.78	1.27	0.68	2.01	0.78
12.	14	1.00	4.53	1.21	0.60	2.05	0.72	1.18	0.55	1.57	0.80
13.	22	1.04	4.09	1.14	0.62	1.70	0.81	1.11	0.67	1.45	0.88
14.	30	1.10	4.65	1.19	0.65	1.83	0.80	1.20	0.71	1.97	0.80
15.	27	1.11	4.07	1.45	0.86	2.38	0.80	1.63	0.97	2.73	0.79
16.	20	1.00	4.05	1.63	0.95	2.62	0.82	1.64	0.97	2.52	0.82
17.	18	1.00	5.11	1.47	0.90	2.12	0.86	1.44	0.86	1.92	0.87
18.	21	1.04	4.00	1.33	0.83	1.99	0.85	1.33	0.81	2.02	0.83
19.	25	1.08	4.50	1.56	0.90	2.73	0.76	1.57	0.91	2.79	0.75
Mean	23	1.03	4.57	1.34	0.76	2.06	0.80	1.34	0.76	2.05	0.81

Table 1: Ksar of BeniIsguen: Case by case description, including depth, integration, and base difference factor



Fig 1: Aerial view of the Ksar of BeniIsguen



Fig 2; View of the chicane leading to WastEddar

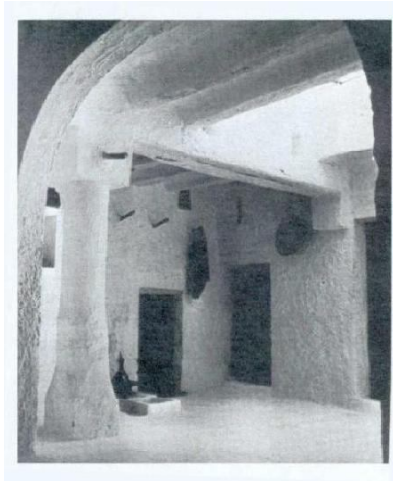


Fig 3: View of Wasteddar the largest space in the house

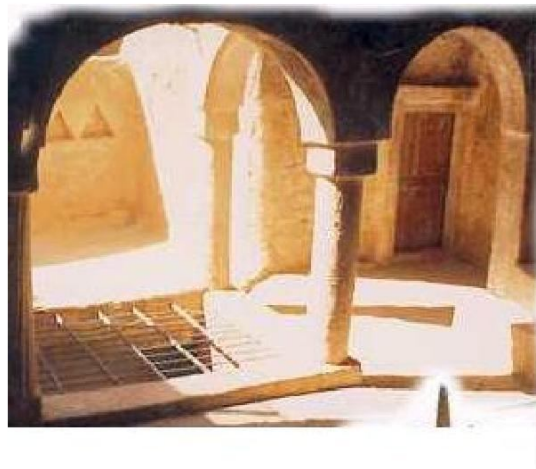


Fig 4: View of the arched portico and Tigharghart [the upper courtyard]



Fig 5: The Aali male reception room on the upper floor



Fig 6; View of the Zenka

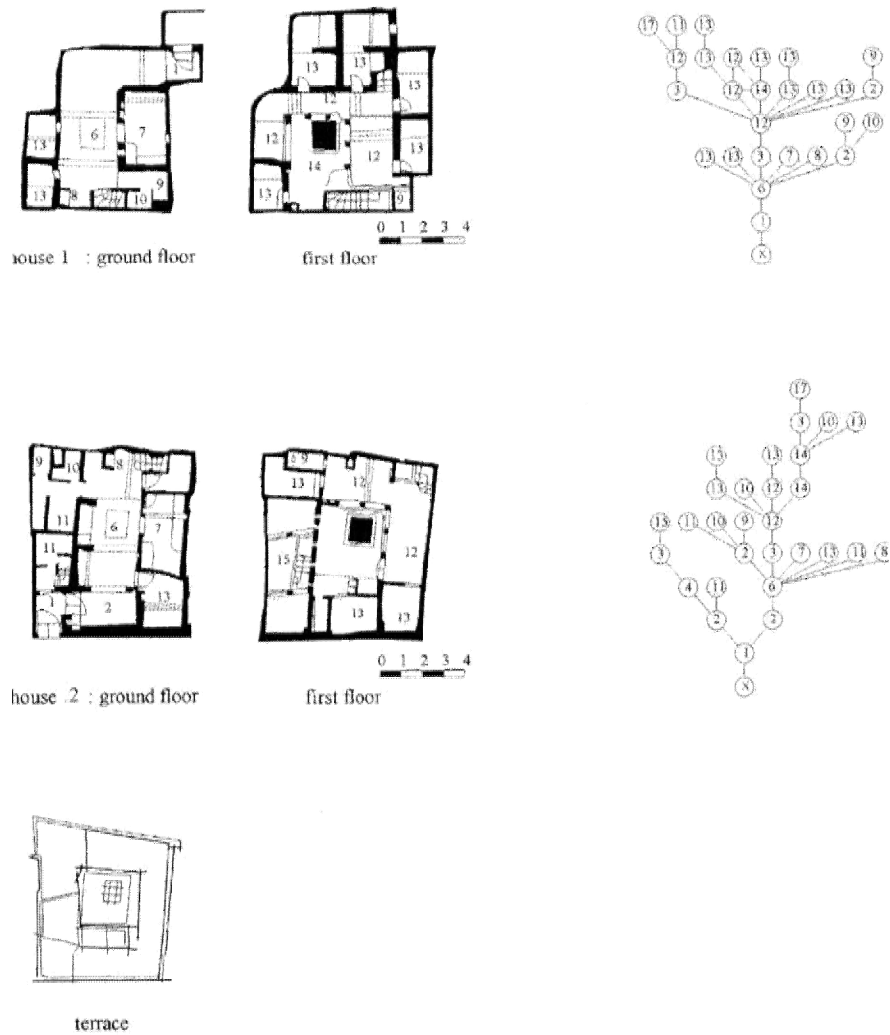


Fig 7: Houses 1-2 with their justified graphs

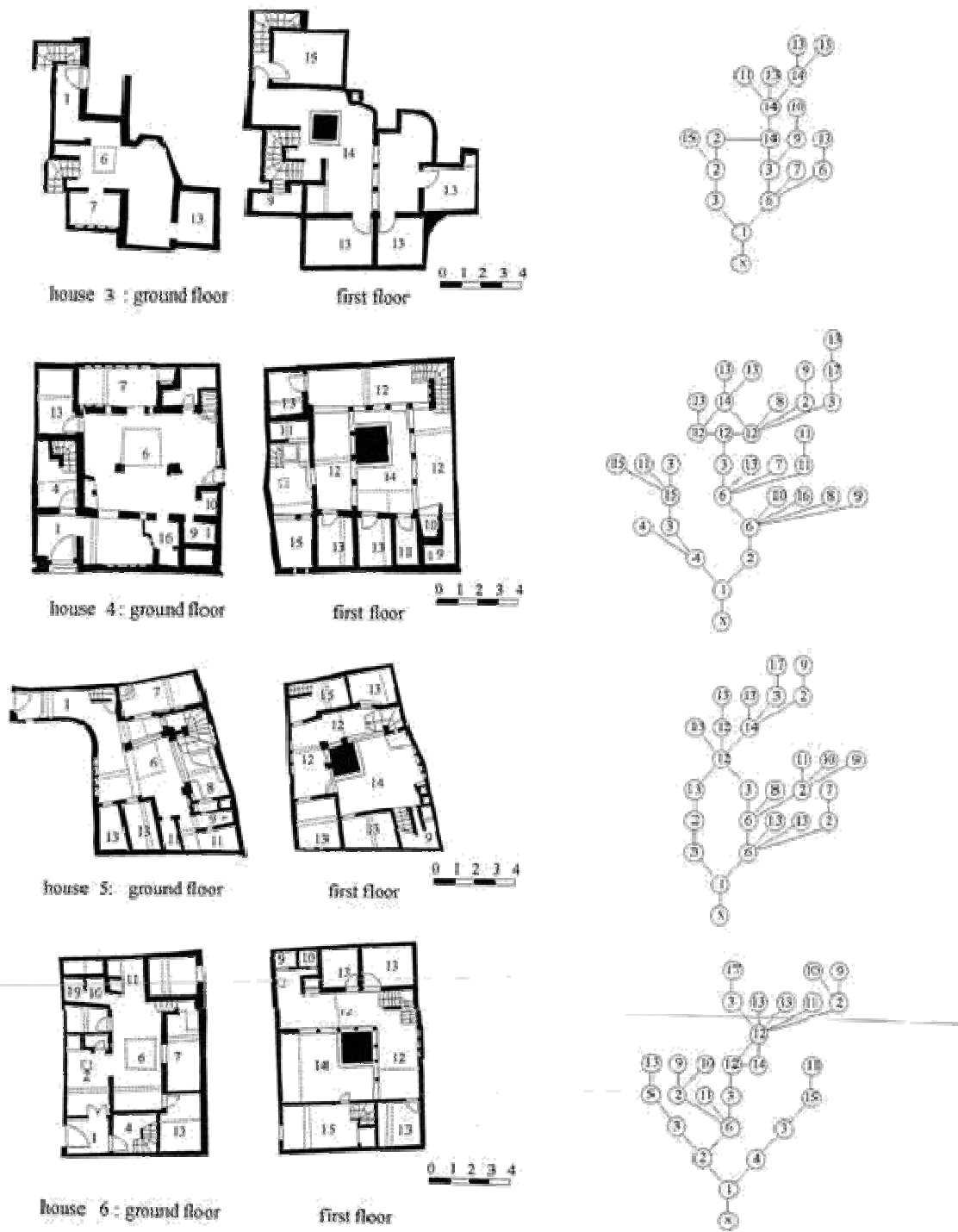


Fig 8: Houses 3-6 with their justified graphs

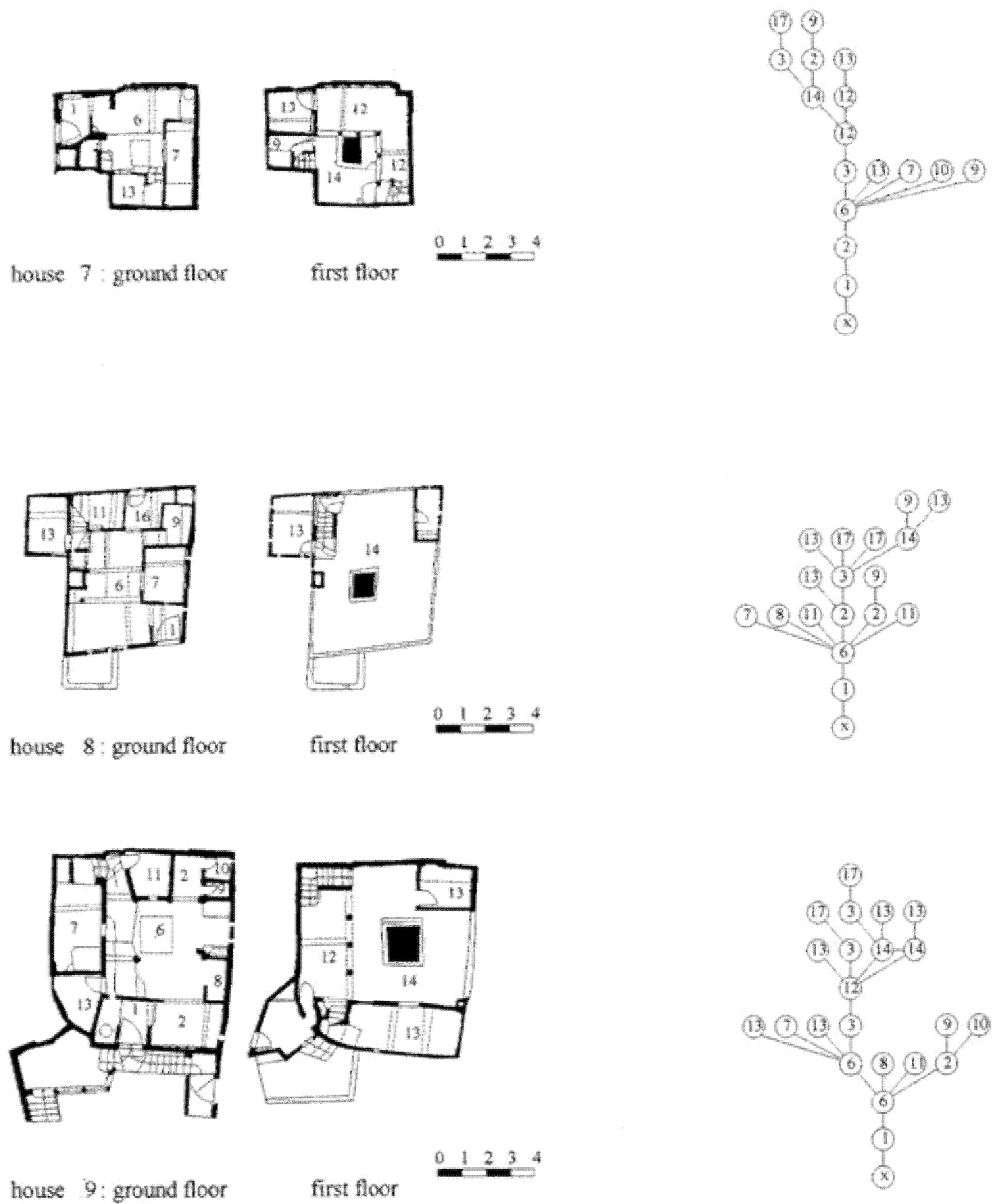


Fig 9: Houses 7-9 with their justified graphs

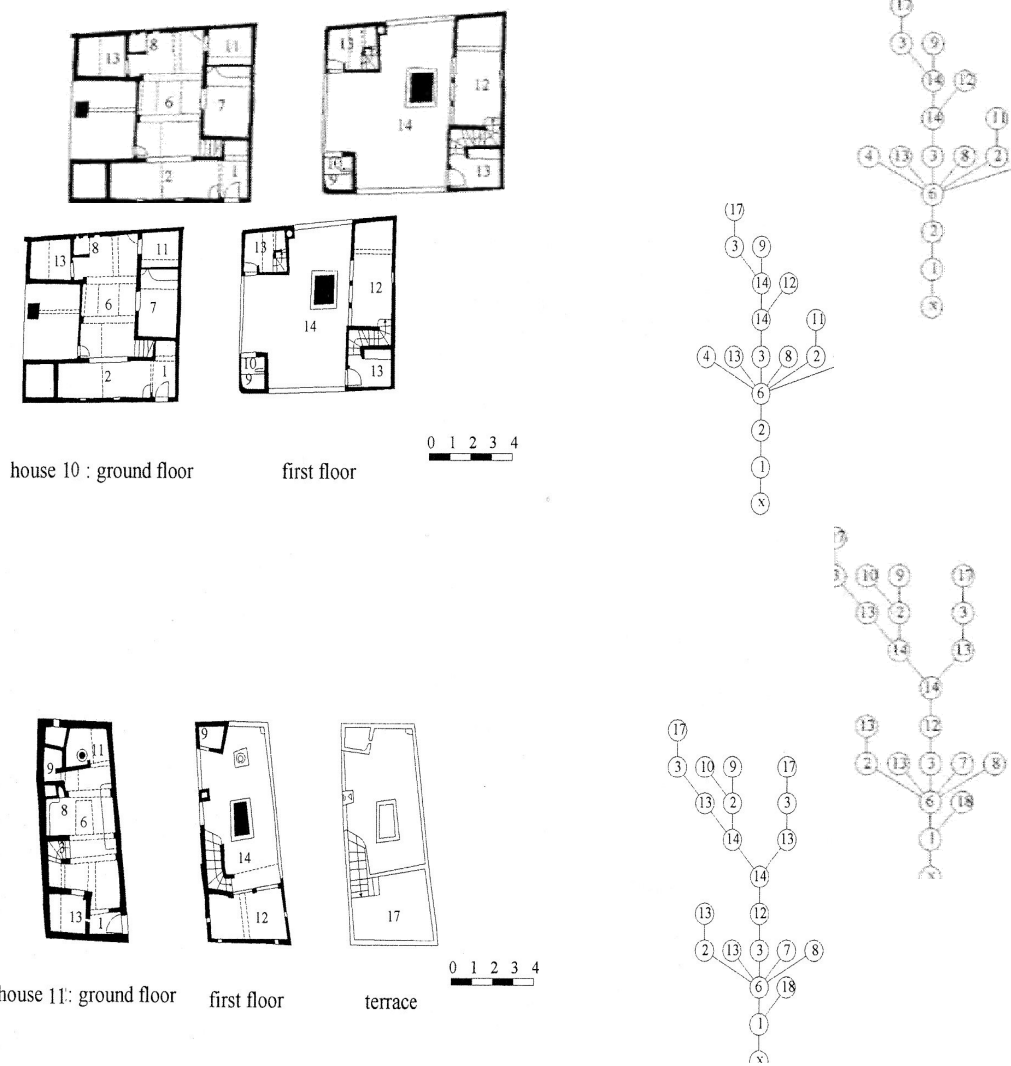


Fig 10: Houses 10-11 with their justified graphs