SCIentific RESearch and Information Technology Ricerca Scientifica e Tecnologie dell'Informazione
Vol 6, Issue 1 (2016), 95-106
e-ISSN 2239-4303, DOI 10.2423/i22394303v6n1p95
© CASPUR-CIBER Publishing, http://caspur-ciberpublishing.it

SPACE SYNTAX ANALYSIS IN THE ALBANIAN DWELLINGS

Boriana Vrusho*, Anna Yunnitsyna *

* Epoka University, Department of Architecture - Tirana, Albania.

Abstract

This study analyses spatial relations of cultural identity and traditional Albanian dwellings of 19th century. There are many studies regarding architectural and urban analysis of these traditional dwelling. However, in this research we propose the space syntax method to interpret interior spatial configurations. Various houses were taken as samples located in five important cities in Albania and their dwelling structure was analyzed, as referred to spatial organization and culture impact. For this purpose, we used the software AGRAPH, which produces matrix results of internal spatial correlations. Results of the analysis imply that Albanian dwellings are organized under social hierarchy and context, mechanical reasons and practical use of space. Furthermore, there can be implications in some regional tendencies of dwellings through the country.

Keywords

Space syntax analysis, Albanian traditional dwellings, Regional tendency

Introduction

A house is the place of living, cooking, eating, sleeping, etc. but also, from the architectural point of view, it is an expression of how householders have accommodated their everyday activities through time. The house is a pattern or an arrangement of space, that shows how its spaces are connected to each other, which activities are grouped together and which are separated.

In this concept, this paper is based on the knowledge of connection between culture identity and traditional dwellings in Albania. Physical analysis of some houses in different Albanian cities are studied in order to evaluate their spatial organization depending on local identity. To support this analysis, we have used the space syntax method, to interpret interior spatial configuration of buildings.

1. Study approach and methodology

Our surrounding environment is a product of many factors, as geography, culture, time and social conditions. This paper studies the connection between cultural identity and its representation in physical space.

It is based on the analysis of traditional Albanian dwellings located in different cities through the country. In practice we have taken in consideration five types of houses in five important cities and have analysed their shapes of spatial organization and culture impact on the dwelling structure.

Researches from the last century have used the space syntax theory to describe interactions of culture and spatial environment. Main authors (Hillier & Hanson, 1984; Hillier, Hanson & Graham, 1987; Hanson, 1998) have taken into consideration houses from primitive configuration to compound most Furthermore, the use of computational aid, is a relevant choice to give an understanding to these schemes. It would be of great interest to conduct the similar analysis of the traditional Albanian dwellings of 19th century, as they represent significant cultural heritage.

Qualitative data collection was based on desk research. The review of documents, scientific periodic, articles and books was focused on twenty-four dwellings located in five Albanian cities in Albania. As the study samples are limited to obtain a substantial result, we consider these as an initial set that could be further processed to test the theory.

On the other hand, quantitative data are drawn by using specific software. Among the different spatial analysis software available, such as DepthmapX, Omnivista, Qgis Space Syntax Toolkit (most used by urban planners), Confeego and Axman (most used by researchers), we have chosen to use AGRAPH software, as it is a simpler tool to make axial-line analysis¹. The program was developed by Bendik Manum, Espen Rusten and Paul Benze; and can be downloaded online from https://www.ntnu.no/ab/spacesyntax. The output of this software is a matrix of interconnections of inner spaces and their integration to outer space, shown in a "tree" matrix.

Within the last part of the research is presented the analysis from the above graphs in order to understand how cultural identity have shaped traditional Albanian houses of the time. At the end, regional tendencies could be pointed out to highlight locality as a conditional factor of space conditions.

The aim of this paper is to identify relation between culture and physical representations in traditional Albanian dwellings, reflecting on:

- Theories on connections between culture, tradition and built environment.
- How cultural identity is expressed in dwellings.
- The importance of cultural background on planning house environment. Understand regional tendencies in Albanian dwellings.

2. Literature review

International literature about space syntax analysis of dwellings, is quite new, dating back around the 80s. Nowadays, many researchers (Dawson, 2003; Dursun, Saglamer, 2003) are making deep analyzes on the importance of space related to social relations. Some researches (Hanson, 1998) have shown that there is a direct relation between the integration or disintegration of a spatial structure in space and the tranquillity of those areas. By integration we mean the "social content of architecture"².

From a sociological point of view "human societies are spatial phenomena"³. A society exists in space by materialization of a place: the dwelling. Spatial form defines the relations among various inner areas, connects and

separates them, creates imaginary movement patterns and defines inside and outside meaning. This spatial order is the way how we distinguish different cultural societies, expressed in how their members lived and formulated their houses. Special spatial formation and behaviour create repetitive characteristics, recognized as ethnicity.

An important contribution in this field have been given by the paper "Architectural Space and Awareness" (Tuan, 1977), which was part of the book "Housing and Dwelling", and that analyzed modern perspectives about human dwellings. The builder, by creating a new place of living, modifies his own body, but also the surrounding environment. This building creates its own environment and has direct influence on its inhabitants; it also cultivates human perception. The architectural space (inner and outer, private and public, closed and opened) advocated human sensations by generating active lively places. Because of human living social organization, the built environment is an expression of social relations and imposes different role for different levels. Furthermore, people tend to behave differently in a built area from a natural environment. Hence, by understanding language of architectural space, understand the phenomenon and symbols embodied in human buildings.

Constructing activity needs organization, in term of spatial consciousness. Elaborated plans and drawings are essential to clarify the architect's ideas and to design a detailed plan, so that other people can understand and execute it correctly. Building is a complex activity which requires a level of consciousness to make decisions, keeping in mind architectural space and dimensions, which affect the built environment. The building influences human consciousness, like language affects feelings. Building environment has a positive effect in human consciousness enlargement. Since Neolithic times. the human shelter was represented by round huts. With time passing, they begun to be more elaborated in space, always expressing contrast between inner and outer space. During the urbanization of cities, the rectangular courtyard became characteristic. Rooms had access to this private space, but were mostly closed to the outer facades.

At the first sight, a dwelling can represent an object whose shape is defined by the inner and outside boundary. The series of events that form

¹ Manum, B. (2009). AGRAPH; Complementary Software for Axial-Line Analysis. In *Proceedings of the 7th International Space Syntax Symposium*, Stockholm, Sweeden, 070, 1–9.

² Hillier, B., & Hanson, J. (1984). The Social Logic of Space. Cambridge: Cambridge University Press. p.1.

³ Idem. p.26.

the internal spaces are "a series of discrete events, expressly and explicitly disconnected from the global system"4. Hence, living categories are put into order in a controlled system, expressing social knowledge of interactions between inhabitants and visitors in relation to the building structure. This disconnection of inner space from the outside global system, creates a spatial representation of cultural identity. As Hillier says: "domestic space reflects cultural codes, in which activity patterns, styles of decor and spatial layout seems to be interrelated"5. These cultural habits are reflected in life-style, guiding behaviour, roles and manners as well as built forms⁶. Most of dwelling's architectural expressions are a result of householders working conditions, welfare, but also of their culture and style of living preferences. A house is, from the architectural point of view, an expression of how householders have accommodated their everyday activities through time passing. According to Hillier, "the creation of order in space depends almost entirely on how we deploy physical elements, such as boundaries and walls"7. Dwelling is a pattern or an arrangement of space. which shows how its rooms are connected to each other, which activities are grouped together and which are separated. In general, dwellings are representations of cultural rules transmitted and repeated through time.

3. Case study selection

Spatial organization of dwellings reflects inhabitants everyday activities, the indoor paths followed, the concretization of each activity in indoor environment (space and rooms), the typology of rooms, their size and how the connection between each of these spaces is expressed, in relation to each person. This research attempts to understand the impact of tradition on spatial organization of Albanian dwellings.

⁴ Hillier, B., & Hanson, J. (1984). *The Social Logic of Space*. Cambridge: Cambridge University Press. p.144.

Albanian traditional dwellings are spread out all over the country. Indeed, nowadays most of them are destroyed or deteriorated, therefore a long and peculiar tradition will soon disappear. Although Albania is a small country, in geographic terms, the presence of rich relief and climatic changes from one side to another, the influence from the neighbouring countries and presence of different regional cultural traditions, offers a wide variety of dwelling typologies.

As Muka says, the dwelling is the most visible manifestation of the personal and ethnic attributes, at the same time⁸. Hence, Albanian houses are expressions of many cultural and economic factors.

Firstly, most of the survived traditional Albanian houses, have been constructed during the 19th century. At the transition from the feudal to capitalist system, dwellings in Albanian cities express economic changes of the times. Unifying characteristics can be distinguished due to family structure simplification and establishment of international economic relationships.

Secondly, the social structure of Albanian family is patriarchically oriented. In many cases, the family consists of a married couple with children and the grandparents, under the same roof. However, in some cases, mostly in central Albania⁹, it is possible to find examples of many brothers living in the same house, with their families. In this case, the house has many rooms, organized in two or three floors.

Thirdly, considering spatial organization of Albanian dwelling, one can notice the involvement of urban and rural economy, the lack of public places and lack of social life which produced multifunctional rooms¹⁰. In general, the same activities can be found in all Albanian dwellings, as the "service rooms" located in the ground floor or other characteristic rooms which can be found in many Albanian houses, such as "fire room" and "visitor's room".

Focusing on Albanian dwelling during 19th century, local authors as Baçe, Meksi, Riza,

⁵ Hillier, B.; Burdett, R.; Peponis, J. & Penn. A (1987). Creating life: or, does architecture determine anything? *Arch. & Comport/Arch. Behav.*, Vol. 3, n. 3, p. 233-250. p.1.

⁶ Dursun, P. & Saglamer, G. (2003). Spatial analysis of different home environments in the city of Trabzon, Turkey. In *Proceedigs of the 4th International Syntax Symposium*. London: University College London. p. 2.

⁷ Hillier, B. (2005a). The art of space and the science of space. *World Architecture, Special Issue of Space Syntax*, 96-102 in English. p.2.

⁸ Muka, A. (2009). Traditional Albanian buildings as ethnological object of study. *Journal of Insitute Alb-Shkenca*, Vol. 3, n.4. p. 4.

 ⁹ Baçe, A., Meksi, A., Riza, E., Karaiskaj, Gj., & Thomo, P. (1980). *The history of Albanian Architecture, from the beginning until year 1912*. Maket. Tirana. p. 440.
 ¹⁰ Pashako, F. (2012). Knowing in order to preserve and

enhance historic architectures: the case study of Berat. In *Proceedings of First International Conference on Architecture and Urban Design* (1-ICAUD), Tirana. p. 1.

Karaiskaj and Thomo (1980), have classified traditional houses taking into consideration the typology of their construction. Hence, five type of traditional houses are known: 1) the house with "çardak" (mostly in Berat and Scutari), 2) the house with "hajat" (mostly in Kavaja, Elbasan and Scutari), 3) the fire house (known as "Tirana" house), 4) the "kulla" (mostly in Gjirokastram, Berat, Kruja and Scutari) and 5) the house with "qoshku" (mostly in Korça).

The "dwelling with garret" (1. çardak) is a two floors house, generally built in flat ground and surrounded by large yard. The ground floor is not occupied, while in the first floors there are the living areas.

The "dwelling with porch" (2. hajat) is organized on a large surface and on one floor and it is surrounded by dense greenery.

The "fire house" (3. shtepi zjarri) is organized around a high central space with smaller rooms, on the floors, accessible through an inner balcony (mafil) and wooden ladders. The most important space of the house is the fireplace where people were gathering.

The "tower house" (4. kulla) is organized mostly on three floors, on a sloping terrain and generally with very small windows on the facade.

The "corner house" (5. qoshk) was the expression of the economic prosperity of the family. It is the latest version of traditional houses in Albania. It was organized as a structure with two or three floors, a central corridor and rooms in row. The distinctive element was the "erker", which is a volume that comes out from the building, as a console or stands on columns, at the second or third floor, with the function of relax area in hot season.

For this study, various traditional houses have been selected from five Albanian regions: Tirana, Shkodra, Korça, Gjirokastra and Berat. Most of these dwelling is now considered as cultural monuments. Similar case studies, in size and inhabitants, have also mostly a similar status. Through the paper should be evidenced regional and cultural influence to spatial organization of dwelling, and also common characteristics that unify Albanian culture. Plans of dwellings were taken from the book "The history of Albanian Architecture" (Baçe et al., 1980).

4. Case study description

For this study, we have selected 24 traditional dwellings: four located in Tirana, four in Shkodra,

seven in Korça, five in Gjirokastra and four in Berat. The chosen cities are located along the entire country, from north to south (Fig. 1). Most of dwellings have two floors (as in Tirana, Shkodra and Berat), while others are with three floors (as in Gjirokaster and Korça).



Fig. 1: Map of Albania with cities of case studies location

4.1 Space syntax analysis

Space Syntax theory is an elaborated way to look at the complexity of a house, that can be seen as integration of different purposes and properties, a way to read the living style of a society as reflected into space and time. Space Syntax is "a set of techniques of representation, quantification and interpretation of spatial configuration in buildings and settlements" 11. By looking at the ethnographic records, it is possible to study and highlight the evolution of traditional houses and their family structures. Space is the key aspect of how our social and cultural world is materialized into the physical world, and

¹¹ Hillier, B., Hanson, J., & Graham, H. (1987). Ideas are in things: an application of the space syntax method to discovering house genotypes. *Environment and Planning B: Planning and Design*, 14(4), 363-385. p.1.

structured for us, as objective realities¹². In Space Syntax theory, residential and cultural factors, which are variants, dominate the local scale, while commercial and micro-economic factors, the global scale¹³.

Spaces are usually connected together in ways that affect how integration is distributed throughout the structure, making some areas of a dwelling more accessible and/or visible than others¹⁴. This sequence regulates the interaction among inhabitants and spatially divides areas in which are located activities, that should not be for public use. For example, rooms that tent to be quiet or messy are located not in first view. Otherwise, common activities tend to be grouped in the same location. As a result, the dwellings households occupied by such are characterized by more open and accessible floor plans with integration values, that are roughly equivalent¹⁵. Logically, the distribution dwellings, reflects integration in expression in an architectural form. In addition to its function as a physical shelter for the various activities of people and societies, space is also a meaningful and informative formation. expression of the culture and life-style of different societies and of the transformations that the social structure has experienced¹⁶.

The most important rooms in these houses are the fire room ("shtepia ose oda e zjarrit"), the porch ("hajat") as entrance hallway located in the ground floor, the garret ("çardak") as a semi-opened loggia located in the first floor, the visitor's room, the summer room (located in the third floor, in Gjirokastra's dwellings) and other bedrooms. It is very important the connection of

¹² Hillier, B. (1993). Specifically Architectural Theory: A partial Account of the Ascent from Building as Cultural Transmission. *Harvard review, The Journal of Architectural research*, 9-17. p.11.

the cult of hospitality in traditional culture, embodied in the visitor's room.

Using AGRAPH software, main parameters taken into account for this analysis have been: CV = Control Value, TDn = Total Depth (TD) for actual node and i = integration value:

Control Value (CV) is the value which each nodes receive when connected.

Total Depth (TDn) is the total of the shortest distances from node n to the other nodes in the systems¹⁷.

Integration (i) is a normalized measure to the shortest path from one point to all other points in a building¹⁸ (the highest the number, the more integrated is a node).

We have also considered parameters such as *Mean Depth (MD)* and *Relative Asymmetry (RA)*, nevertheless, we will focus on *CV*, *i* and *TD* as the most representatives.

Through these parameters, we aimed to understand the intern organization of traditional dwellings and see if cultural characteristics have affected the formation of these spaces.

Rooms are interrelated with each other, affecting their integration in dwelling, making some spaces more accessible (high integration value, low depth of node) and some others less accessible (low integration value, high depth of node). Justified graphs are expressed in tree shapes. Bringing to attention Hanson's definitions: shallow graphs tend to be more integrated, in terms of configuration; deep graphs more segregated¹⁹.

The following images show each of the dwelling taken into consideration, in accordance with its their location (Fig 2-6). Connectivity matrix (or justified graphs as called by Hanson, 1998) is designed to explain each node of the dwelling with number, name of space and colour. Rooms are identified by circles and spatial linkages by lines. The fire house is drawn in red, the bedrooms in yellow, the visitor room in pink,

¹³ Tang, X., Liu, Y., Zh, J., & Kainz, W. (2007). *Advances in Spatio-Temporal Analysis*. Volume 5 of ISPRS Book Series. London, UK: CRC Press.

 ¹⁴ Dawson, C. P. (2003). Examining the impact of Euro-Canadian architecture on Inuit families living in Arctic Canada. In J. Hanson (Ed.) *Proceedings: Space Syntax: 4th International Symposium*, pp. 21.1–21.16. Volume 1 of 2. p.4.
 ¹⁵ Dawson, C. P. (2003). Examining the impact of Euro-Canadian architecture on Inuit families living in Arctic Canada. In J. Hanson (Ed.) *Proceedings: Space Syntax: 4th International Symposium*, pp. 21.1–21.16. Volume 1 of 2. p.4.
 ¹⁶ Dursun, P. & Saglamer, G. (2003). Spatial analysis of different home environments in the city of Trabzon, Turkey. In *Proceedigs of the 4th International Syntax Symposium*. London: University College London. p. 1.

¹⁷ Manum, B., Rusten, E., & Benze, P. (2005). AGRAPH, Software for Drawing and Calculating Space Syntax Graphs. *Proceedings: 5th International Space Syntax Symposium*, Delft 2005. pp. 98.

 ¹⁸ Dawson, C. P. (2003). Examining the impact of Euro-Canadian architecture on Inuit families living in Arctic Canada. In J. Hanson (Ed.) *Proceedings: Space Syntax: 4th International Symposium*, pp. 21.1–21.16. Volume 1 of 2. p.4.
 ¹⁹ Hillier, B., & Hanson, J. (1984). *The Social Logic of Space*. Cambridge: Cambridge University Press. p.27.

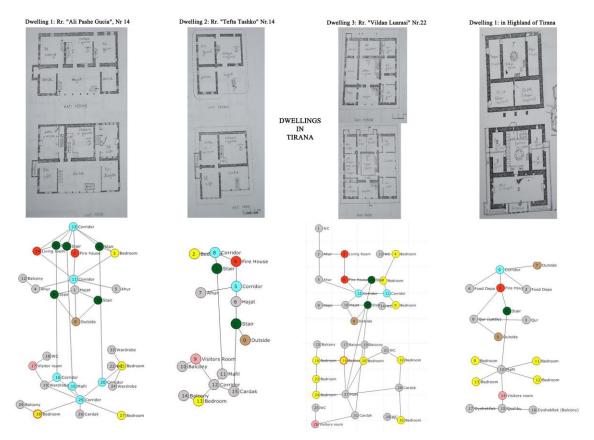


Fig. 2: Space syntax analysis of dwellings in Tirana

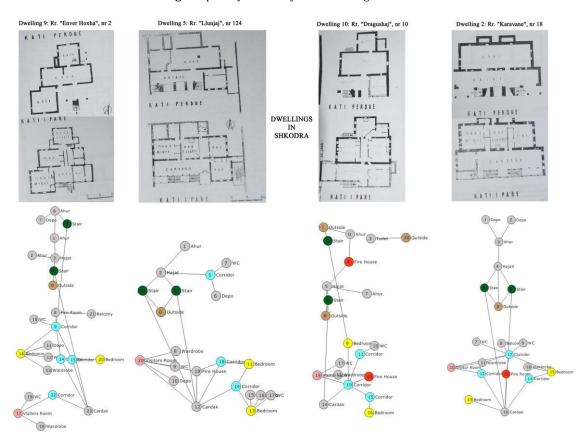


Fig. 3: Space syntax analysis of dwellings in Shkodra

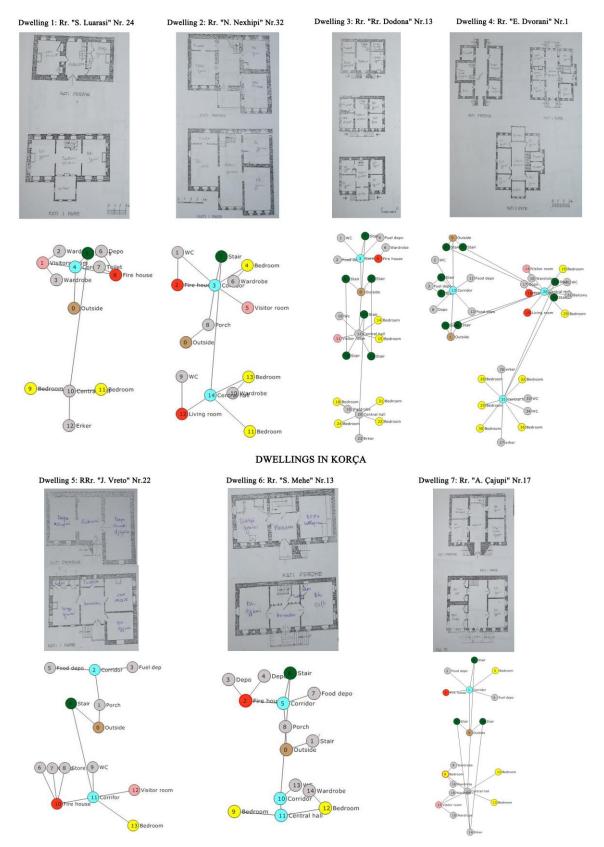


Fig. 4: Space syntax analysis of dwellings in Korça+

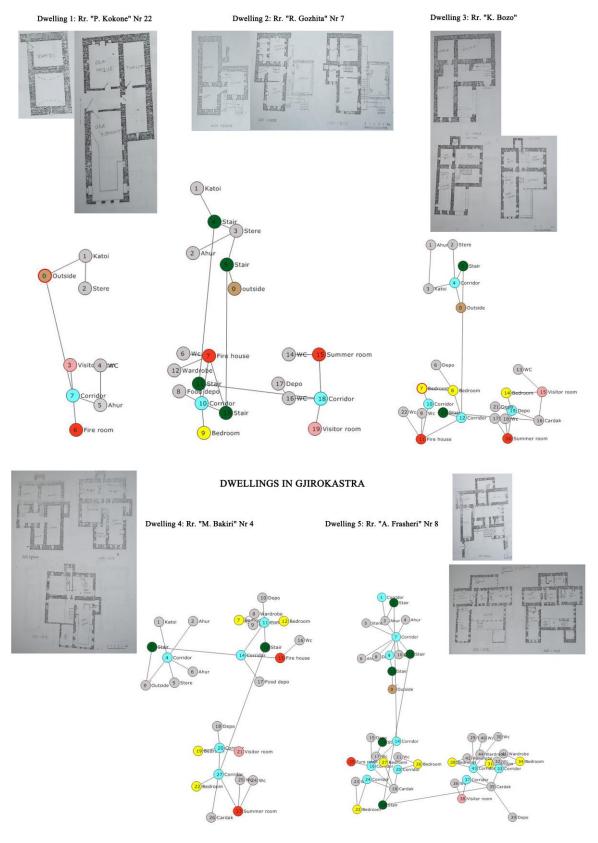


Fig. 5: Space syntax analysis of dwellings in Gjirokastra

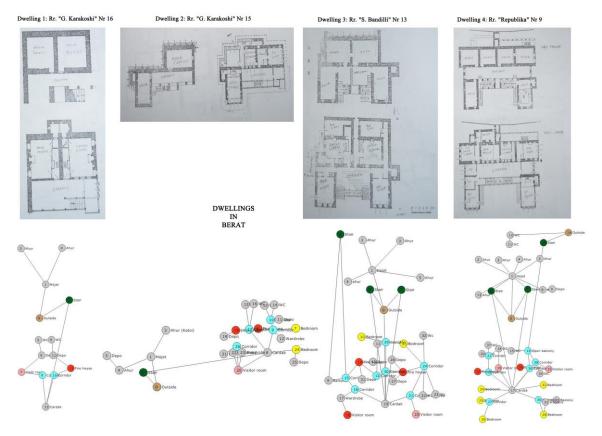


Fig. 6: Space syntax analysis of dwellings in Berat

cardak and hajat in grey and stairs in green. Interaction of rooms with each other are expressed by connectivity lines. The graphs provide visual explanation of different house models, highlighting the variation of how spaces are connected, in specific Albanian cities

4.2 Specific characteristics of Albanian dwellings

Albanian dwellings are mostly organized in accordance with: a) hierarchic practices, b) practical use of spaces, c) social context (public vs. private spaces) and d) mechanical characteristics (clean, noise, quiet).

From the hierarchical point of view (a), common used rooms are located in the ground floor (the fire house) while bedrooms are in the upper floors (with females rooms separated from males and placed in more discrete part of house).

From the practical point of view (b), functions like "ahur" or "katua" (meaning storeroom or cot), are always located in the ground floor. Hajat and çardak are open areas, the first one is like an entrance hall in the ground floor and the second one like a loggia in the first floor, are always spatially positioned one over the other. Also, in Gjirokastra's dwellings are always found water mainland at the ground floor, due to the fact that

households collect rain water to reuse later to water plants.

From the social point of view (c), public spaces like halls and fire rooms are located in the ground floor, more accessible by all people (in Tirana and Korça). In other cities, like Shkodra, Gjirokastra and Berat, due to the positioning of house in sloping terrain, in the ground floor are service mostly located and storerooms. meanwhile the fire rooms are located at the first floor. A specific characteristic of Albanian dwellings is the presence of stairs. Dwellings in Tirana have minimum two inner stairs, one or two connect the hajat with the çardak, one connects the fire house from the ground floor to a corridor named "mafil" at the first floor and there may be another stair which connects the living room in the ground floor with the visitor's room at the first floor through a corridor (like the first example in Tirana dwelling).

Dwellings in Berat always connect the ground floor with the first floor through outer stairs. The stair may be single or double.

Dwellings in Gjirokastra have minimum one inner stair that goes from the ground to the third floor and another outside stair, that connects the ground floor to the first one.

the corridor to the first floor.

Dwellings in Shkodra, mostly have an outer stair which links the hajat with the çardak and on some times, where the house have many rooms, another inner stair connects the fire room with

Dwellings in Korça have an interesting composition regarding stairs. They always have an inner stair which connect the central hall of the ground floor (as called by them the basement) to the central halls of the first and second floors. The entryway to the house corresponds to a closed balcony (at the first and second floor) called "erker", reinforced by two slabs that go to the ground floor. Most of houses have entrance stairs from the outside, at the front and back façade (as the third and fourth example at Korça's dwellings). Sometimes the stairs of the front façade connect the ground and the first floor (the fifth to seventh example).

The visitors' room, as one of the most representative spaces in Albanian houses, may be located on the first floor with direct access from the stairs that connect the fire house of the ground floor with the corridor at the second floor, only directly to the visitor's room (as in Shkodra, Tirana, Korça, Berat), or sometimes in the third floor, near the summer room (in Gjirokastra).

Bedrooms are always located at the first or second floors, divided by a corridor leading to the çardak (as a common space) or to the visitor's room, which has a separate corridor).

Mechanical characteristics (d) affect the position of corridors and loggias on the façade, relatively to the road or garden, and bedrooms to the sides with less noise.

On the overall, from the above mentioned Space Syntax analyses, it is possible to argue the important role of open and common spaces, like the hajat and çardak, which have the highest integration values in most dwellings taken into consideration. Following, another room with high integration values and more connection points is the fire house, as a representation of an area of common activities. Meanwhile, single use rooms, such as bedrooms, are more segregated than the above mentioned spaces, positioned deeper in house and connected with secondary corridors to the central hall.

4.3 Regional tendencies in Albanian dwellings

Albanian dwellings can be explained by cultural regional division, through the country. In general, it is possible to point out that houses are

developed not very differently from neighbour regions, giving a logic continuity in the transition from one to another²⁰.

Taking into consideration TDn, i and CV from AGRAPH modulations, the following evidences can be raised: the fire house had the higher integration value at 13 %, on 24 cases analysed; the stairs had most of "i" value at 34 %, the cardak at 38 % and the central hall of the second floor at 15 % of cases. From a regional perspective, traditional dwellings in Tirana show the fire house and the stairs having the most integrated values; 75 % of houses in Shkodra have the cardak as the most integrated space; houses in Korça are constructed in more eloquent modules making the most integrated areas the stair, the central hall of the second floor and the fire house; the most integrated space for dwellings in Gjirokastra are the stair and the cardak; and, at the end, the cardak have the highest integration values in all traditional dwellings in Berat.

In 46 % of all considered traditional dwellings, the least integrated space were the bedrooms at the second floor, and, in 21 %, the visitor room.

The final graph reveals that the most integrated rooms in different dwellings are the fire house (in Tirana), the garret (in Shkodra, Berat and some in Gjirokastra), the central hall and stairs (in Korça and partially in Gjirokastra).

From the above evidences, it is possible to regional tendencies in Albanian traditional dwellings. The most integrated areas, with the least depth values, are common spaces used by most of the inhabitants of the house. The stairs are important elements of vertical connection and differentiation of spaces by their individual corridors. The cardak is the loggia of the first floor, used in all seasons, a pleasurable space for gathering, talking and passing time with each other, enjoying the green yards that are characteristic of all Albanian houses. The central hall of the second floor can be found in dwellings in Korça. The house is organized in two parts, linked by this central hall, with rooms located at the right and left of this space. Hence, it can be considered as a gathering point for all inhabitants coming out from the rooms.

It is very interesting that the least integrated rooms are the bedrooms at the upper floors and

²⁰ Muka, A. (2009). Traditional Albanian buildings as ethnological object of study. *Journal of Insitute Alb-Shkenca*, Vol. 3, n.4. p. 4.

the visitor rooms. This organization is an expression of local cultural mentality. As areas considered to need more privacy, the rooms of the first floor can be accessed through a corridor from the stairs. The stairs which lead to the bedrooms are always separated and located far from to the ones that lead to visitor rooms. In most cases, stairs coming from the fire room at the ground floor, take to the visitor rooms, whose corridor is near to çardak. The idea is to totally separate the rooms of the inhabitants with those of the visitors, by creating additional corridors.

5. Conclusions

Looking at Space Syntax analysis conclusions of traditional Albanian dwellings, one can understand the importance of interactions among inhabitants and those between inhabitants and visitors, expressed in spatial organization of house. Several entrances of the house, from the outside, show how the dwelling is connected with the surrounding environment. Furthermore, a house epitomizes social and configurational aims of its inhabitants. Differentiations in spatial organization of rooms give information on everyday life of people, that varies from one city to another.

This paper proposes a general approach on how traditional houses in Albania can be analyzed, in terms of spatial configurations. Direct conclusions can be drawn to understand the impact of local and regional culture into housing construction. The conceptualization of these dwellings, repeated through time, represents a great cultural asset for country, expressing their uniqueness.

Space Syntax analysis is an innovative method for Albanian houses analysis. Most of them have been classified by the architectural characteristics. This work proposes therefore a new perspective of labelling important elements in traditional Albanian dwellings.

Regarding next steps, in order to obtain more substantial results, a larger number of dwellings should be tested further. In this way, more complex house compositions could be analysed to complete the classification approach and widen the variety of test cases. Young architects can use the results of these analysis in future planning of new houses, thus connecting contemporaneous architecture with local traditional house architecture and its diversities.

Another possible future and interesting development would be to apply Space Syntax analysis to the study of various houses built in different historical periods (i.e. from ancient Illyrian settlements up to nowadays).

REFERENCES

Baçe, A., Meksi, A., Riza, E., Karaiskaj, G., & Thomo, P. (1980). *The history of Albanian Architecture, from the beginning until year 1912*. Maket. Tirana.

Dawson, C. P. (2003). Examining the impact of Euro-Canadian architecture on Inuit families living in Arctic Canada. In J. Hanson (Ed.) *Proceedings of Space Syntax: 4th International Symposium*, (pp. 21.1-21.16), Volume 1 of 2. London, UK: University College London.

Dursun, P. & Saglamer, G. (2003). Spatial analysis of different home environments in the city of Trabzon, Turkey. In *Proceedigs of the 4th International Syntax Symposium*. London, UK: University College London.

Hanson, J., (1998). The social logic of space. Cambridge, MA, USA: Cambridge University Press.

Hillier, B. (1993). Specifically Architectural Theory: A partial Account of the Ascent from Building as Cultural Transmission. *Harvard review, The Journal of Architectural research*, 9-17.

Hillier, B. (2005). The art of space and the science of space. *World Architecture, Special Issue of Space Syntax*, 96-102 in English.

Hillier, B., & Hanson, J. (1984). *The Social Logic of Space*. Cambridge, MA, USA: Cambridge University Press.

Hillier, B., Hanson, J., & Graham, H. (1987). Ideas are in things: an application of the space syntax method to discovering house genotypes. *Environment and Planning B: Planning and Design*, 14(4), 363-385.

Hillier, B.; Burdett, R.; Peponis, J. & Penn. A (1987). Creating life: or, does architecture determine anything? *Arch. & Comport/Arch. Behav.*, 3(3), 233-250.

Manum, B., Rusten, E., & Benze, P. (2005). AGRAPH, Software for Drawing and Calculating Space Syntax Graphs. In *Proceedings: 5th International Space Syntax Symposium*, (pp. 97-101), Delft, Netherlands.

Manum, B. (2009). AGRAPH; Complementary Software for Axial-Line Analysis. In *Proceedings: 7th International Space Syntax Symposium*, (pp. 1-9), Stockholm, Sweeden.

Muka, A. (2009). Traditional Albanian buildings as ethnological object of study. *Journal of Insitute Alb-Shkenca*, 3(4).

Pashako, F. (2012). Knowing in order to preserve and enhance historic architectures: the case study of Berat. In *Proceedings of First International Conference on Architecture and Urban Design (1-ICAUD)*, Tirana, Albania.

Tang, X., Liu, Y., Zh, J., & Kainz, W. (2007). Advances in Spatio-Temporal Analysis. *Volume 5 of ISPRS Book Series*. London, UK: CRC Press.

Tuan, Y.-F. (1977). *Space and Place: The Perspective of Experience*. Minneapolis:MN, USA: University of Minnesota Press.