

An Introduction to Giulia Annalinda Neglia Viewpoint on Morphology of the Islamic City Using Written Content Analysis Approach

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Abstract—Morphology of Islamic cities has been extensively studied by researchers. In this regard, there exist much difference in method of analysis, classification, recognition, confrontation and comparative method of urban morphology. The present paper aims to examine the previous methods, approaches and insights and how Dr. Giulia Annalinda Neglia dealt with the analysis of morphology of Islamic cities. Neglia is assistant professor in University of Bari, Italy (UNIBA) who has published numerous papers and books on Islamic cities. We introduce the works in the field of morphology of Islamic cities and then, her thoughts, insights and research methodologies are presented and analyzed in critical perspective. This is a qualitative research on her written works, which have been classified in three major categories. The present paper focuses mainly on her works regarding morphology and physical shape of Islamic cities. The results of her works' review suggest that she has used Moratoria typology in investigating morphology of Islamic cities. Moreover, overall structure of the cities under investigation is often described linear; however, she is against to define a single framework for the recognition of morphology in Islamic cities. She believes that fabric of each region in the city follows from the principles of a specific period or urban pattern, in particular, Hellenistic and Roman structures. Furthermore, she believes that it is impossible to understand the morphology of a city without taking into account the obvious and hidden developments associated with it, because form of building and their surrounding open spaces are written history of the city.

Keywords—City, Islamic city, morphology of city, Giulia Annalinda Neglia.

I. INTRODUCTION

STUDY of Islamic city morphology is an interdisciplinary field that involves different scientific systems. Although expansion of studies has improved our understanding of complexities in morphology of Islamic cities, the diversity in traditions, research objectives and scientific systems made a kind of ambiguity and confusion in this field. In general, urban morphology refers to the concept of "spatial pattern of urban physical elements which are huge, static and permanent, including buildings, streets, utilities, valleys, rivers, even trees; other morphemes signifying the diversity and implying type of use, quality or way of ownership are added to the above list" [1]. Urban morphology is a well-known concept among authors and researchers of the related scientific fields,

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and in a general way, it involves form and physical structure of a city. Even considered an obvious thing that the need to define it explicitly is not seen [2], [3]. However, there are considerable discussions and differences on how to study urban morphology, the way of dealing with it, and the interplay between it and the related concepts. A great deal of these methodological differences results from the fact that the researchers are from diverse scientific fields, applying different theories and methods in their studies. Then, in the present study, we try to explore the theories, research works and analytical methods of Giulia Annalinda Neglia on Islamic cities. In the recent two decades, she has extensively worked on Islamic cities. Subject of her masters' thesis indicates that she has started research on Islamic cities since 1999 and continued the theme to doctoral and post-doc levels [27]. Moreover, she has written a book on fabric of Islamic cities [28]. Then, the present study explores her ideas and works in the field of fabric and morphology of Islamic cities. As mentioned so far, the main questions of this study are presented: What is attitude of Giulia Annalinda Neglia on Islamic cities? What method did she use to study and interpret these cities? What criticisms are made to her interpretations and thoughts?

II. METHODOLOGY

The present study is a descriptive content analysis. Content analysis is used to describe contents of texts qualitatively and objectively in a systematic way, and includes a vast continuum of written, oral, visual and spatial texts on a particular subject, such as books, papers, lectures, and satellite images. In content analysis, the materials and data are gathered, classified and analyzed. These data may be words, sentences, paragraphs, or complete texts in written or oral forms [4]. In this study, at first the biography and works of Giulia Annalinda Neglia are introduced, then, her works are prioritized in three groups. The first group is mainly her works on morphology and form of Islamic cities. Consistent with purpose of the present study, i.e. investigating attitudes and approaches of Neglia on morphology of Islamic city, the first priority research are studied and investigated, some of them are discussed in details in the following. Then, they are analyzed critically and thoughts, attitudes, ideas, methods and how Neglia encounters with morphology of Islamic city are criticized.

III. BIOGRAPHY AND WORKS OF GIULIA ANNALINDA NEGLIA

A. Biography

Giulia Annalinda Neglia was born on September 11, 1973, in Bari, Italy. She graduated from Enric Fermi high school in Bari during 1987-1992. She received her Master's Degree in architecture on 1999 from Max van Berchem Foundation, with a thesis on "Morphology and typology in renovation process of Islamic architecture: urban fabric and courtyard houses in Jerusalem". Later this year, she became member of Bari Architecture Association. In 2003, she received her PhD in Architectural Design for Mediterranean Countries under supervision of Professor Attilio Petruccioli (former Aga Khan Professor); her dissertation was titled "Mediterranean countries: Aleppo, forms and types of Intramoenia cities". During 2000-2001, she attended l'Eberhard Karls University in Tuëbingen, Germany, for her scholarship and got her post-Doc degree in Politecnico di Bari during 2003-2005. In addition, in 2004, she got post-doc degree in Islamic Architecture Center of MIT University. She got scholarship and grant of Max van Berchem Foundation in Geneva from 2005 to 2006. She taught as an adjunct professor in the fields of architecture and industrial design at Politecnico di Bari during 2005-2011 and in 2011 she became assistant professor of the Polytechnic University of Bari. Moreover, she has been member of different associations from 2000, including Historians of Islamic Art Association, the International Association for the Exchange of Students for Technical Experience, International Seminar on Urban Form, Association of Friends of the Old City of Aleppo and Commonwealth countries.

B. Works

So far, 43 compilations have been published by Neglia. Her works include writing two books, being co-author of two books, presentation of 13 articles for conferences, 13 articles published in different books, 8 articles in journals, 2 essays published in websites, and publishing her designs in 3 books. In the field of professional works, she has performed 15 designs, including interior architecture for gardens and farms.

C. Books

- 1- Aleppo: processes of formation of the medieval Islamic city [7]-[9].
- 2- Some historiographical notes on the Islamic city with

particular reference to the visual representation of the built city [5], [6].

D. Articles

- 1- An interpretation of the urban fabric: the structure of pre-Islamic Aleppo [10].
- 2- Processes of formation of Ottoman Damascus [11].
- 3- Ideal model in formation of Kashan in Iran [12].
- 4- Urban recovery processes in fabric of Mediterranean city: Case study of Jerusalem [13].
- 5- Process of typology and formative processes of Middle Eastern urban open spaces [14].
- 6- Some hypotheses toward development of Kairouan with morphological approach
- 7- Form of Aleppo (Syria) during the Middle Ages [15].
- 8- Note of the urban landscapes of south-eastern Mediterranean cities [7], [8].
- 9- Courtyard houses in Kairoun [9].
- 10- Process of formation of the Medieval Islamic city
- 11- Salento landscape in Lecce: Natural structure and forms of human dwellings [16].
- 12- Interpreting the urban structures underlying the Hama Medina: Archaeology without excavation
- 13- Interpreting the urban fabric of Jerusalem, Aleppo and Hama at the dawn of Islam [5].
- 14- The multicultural fabric of the crusader citadel of Tartous in Syria
- 15- The garden of Taranto: The gate to the sea, as tool for internal and urban regeneration [16].

E. Classification of Publications

For purpose of analysis, Neglia's publications can be classified and prioritized into three broad groups:

- i. Form of city and related cultural heritage
- ii. Architecture, landscape architecture and cultural heritage
- iii. Sustainable development and urban planning

The analysis of publications indicates that most of them are placed in the first group, and it paves the way for in-depth analysis on form of Islamic city. Even, for purpose of studying architecture, landscape architecture and cultural heritage, as well as sustainable development and urban planning, it is better to choose more prominent authors in those fields. At the following, the articles of each group are presented based on the above classification.

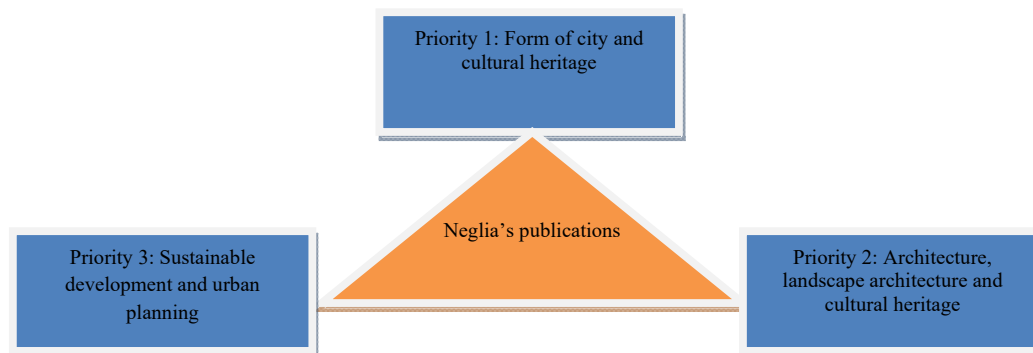


Fig. 1 Prioritization in publications of Annalinda Neglia



Fig. 2 Spatial distribution of regions studied in the articles of priority 1

- i. Form of city and related cultural heritage
 - 1. An interpretation of the urban fabric: The structure of pre-Islamic Aleppo
 - 2. Processes of formation of ottoman Damascus
 - 3. Urban recovery processes in fabric of Mediterranean city: Case study of Jerusalem
 - 4. Note of the urban landscapes of south-eastern Mediterranean cities
 - 5. Process of typology and formative processes of Middle Eastern urban open spaces
 - 6. Some hypotheses toward development of Kairouan with morphological approach
 - 7. Form of Aleppo (Syria) during the Middle Ages
 - 8. Process of formation of the Medieval Islamic city
 - 9. Some historiographical notes on the Islamic city with particular reference to the visual representation of the built city
 - 10. Aleppo: Processes of formation of the medieval Islamic city
 - 11. Interpreting the urban fabric of Jerusalem, Aleppo and Hama at the dawn of Islam
- ii. Architecture, landscape architecture and cultural heritage
 - 1. Salento landscape in Lecce: Natural structure and forms of human dwellings
 - 2. The multicultural fabric of the crusader citadel of Tartous in Syria
 - 3. Interpreting the urban structures underlying the Hama Medina: Archaeology without excavation
 - 4. Courtyard houses in Kairouan
- iii. Sustainable development and urban planning

- 1. The garden of Taranto: The gate to the sea, as tool for internal and urban regeneration
- 2. Ideal model in formation of Kashan in Iran

IV. SCHOOLS OF URBAN MORPHOLOGY

Urban morphology is a basically physical approach in study of cities. In the end of nineteenth century, “urban morphology” emerged as a systematic knowledge. Given the different forces involved in shaping a city, it is not surprising that this realm of knowledge is considered an interdisciplinary field, made up from professionals of different scientific fields, including architects, urban planners, urban geographers and urban designers. Urban morphology, in a simple term, is the study of form of cities, and urban morphologists do agree about what this field is, however, there are disagreements on how to study the form of cities [17].

As it was discussed in research works of Anne Vernez Moudon (1994, 1997, 1998) [18]-[20], Peter Larkham (1998) [21] and Withehand [22], there are three main schools of urban morphology which do not necessarily correspond to urbanization, architecture and urban geography schools in terms of time or philosophical thoughts behind them. Those scholars explored the beliefs of founders and advocates of these schools: England, Italy and France schools [23]. In this paper, at first the Neglia’s works and her approach in interpreting form of Islamic city are explored, and then the relationship between her ideas and urban morphology schools are presented.

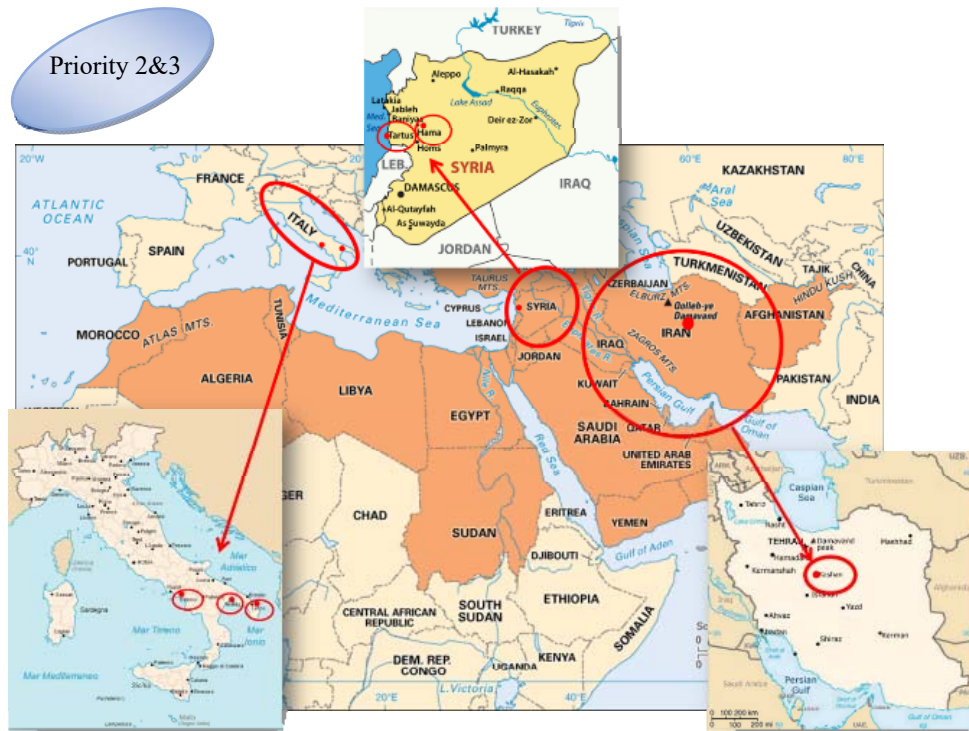


Fig. 3 Spatial distribution of regions studied in the articles of priority 2 and 3

V. ISLAMIC CITY IN WORKS OF GIULIA ANNALINDA NEGLIA

A. Interpretation of the Urban Fabric: The Structure of Pre-Islamic Aleppo

In this article Neglia interprets urban morphology of Aleppo through methodology of Saverio Muratori (1910-1973), considering tangible and intangible heritage of this city. The results suggest that fabric of Aleppo has not been formed in a single period of time; as such, part of it conditioned by nature, a part formed by imperial urban standards (Hellenistic and Roman), and finally, a part formed as result of destruction and regeneration of Arabs when they conquered Syria. In Aleppo, understanding the structure of urban fabric of medieval Islamic and Ottoman city, without taking into account the fundamentals of Hellenistic- Roman- Byzantine city and their harmony, is not possible. In general, she describes the fabric of Aleppo as a linear model, resulting from different geometric concepts, superimposed together and mostly inspired by Roman period. In her view, the complexity, stratification and apparently chaotic form of the urban fabric of Aleppo is the result of different urban programs with Roman origins. Aleppo is considered a walled city in which Bab al-Nasr and Bab Quinnesrin axes are introduced as the main axes shaping the urban personality of border and area of the city. Neglia believes that the current situation of Aleppo is different from French cadastral maps during 1930s, claiming that for the study of urban morphology of Aleppo, in addition to cadastral maps, she has utilized Aleppo maps in different scales and periods, review of documents and evidence in urban, regional and local scales, thematic maps, historical maps of Aleppo, photographs and images in different scales

and the study of urban fabric of Syria with similar structure to Aleppo.

B. Processes of Formation of Ottoman Damascus

In this article, Neglia interprets the urban fabric of Damascus at the end of Ottoman era (right before the fundamental changes went through the modern city), using the French cadastral maps which gives the detailed specifications. She argues that “history of a town is written within its built fabric” and acknowledges that the studies of these cities have focused mainly on the history of public monuments, rather than on process of forming the urban fabric, and particularly on intensity, aggregates and buildings layouts. Therefore, she tries to reconstruct different phases in shaping Damascus urban landscape from the Medieval to Ottoman era, referring to it as an attempt to fill the gap in studies on this topic.

At the end, based on the analyses and interpretations from Damascus urban fabric through time, she concludes that the best thing to understand formation process of Ottoman intensity, from residential to religious buildings, is the term “continuity”, i.e. the continuity of changes and developments from pre-Islamic to Ottoman period. Moreover, she notes that complexity of a large number of aggregates has rooted in Medieval underlying structures. In her view, orientation of buildings, different plans, units and characteristics of structures at the base of formation of Ottoman Damascus represent its apparent complexity; something that is a chaos in Orientalist viewpoint. Finally, Neglia divides this complexity into homogenous shapes and simple forms.

C. Process of Typology and Formative Processes of Middle Eastern Urban Open Spaces

Neglia begins this article with this discussion that there are different ways for speaking about urban fabric and open spaces. One way is through concentration on aesthetic considerations, investigating urban fabric, infrastructure and networks, evaluating sites geometry or building characteristics which shape the urban spaces. Of course, it works as far as sociological and mental-cognitive analyses are not concerned. The other way is that the urban landscape is studied as history, as stratification of different formation stages of a cultural system influenced by different components (that can be very heterogeneous), or as a human-cultural heritage composed of the elements and symbols from the past, not necessarily by observing the sights and concepts. In this article, Neglia investigates and analyzes the fabric of open spaces in three eastern Mediterranean cities (Aleppo, Damascus, Jerusalem), with a highly anthropic approach, using the specific analytical tools which have been established for typology of urban fabric processes. She believes that these cities have an urban history and a geometric form inherited from sixteen century and later, in particular squares, open spaces, gardens and monuments. She describes structure of open spaces, including historic squares, in compliance with a hierarchical branch-like route networks, such as the system found in Islamic streets, traditional bazaar, commercial public streets or the dead-ends and entrance to courtyards. Moreover, to explain the complexity of urban structure of these open spaces, it is necessary to understand not only their current visible form, but also the process formation of these spaces which are mainly Ottomanic, but developed during the pre-Islamic or pre-Medieval periods. These complexities may seem unstructured and spontaneous at the first glance, but on the contrary, they are resulted from changes, transformations and re-use of existing structures and reorganization of urban fabric and open spaces. The complexity of Middle Eastern open spaces is characterized by the relationship between buildings intensity (residential, religious, public and commercial) and the connecting routes between them (streets, bazaars and dead-ends). It can be understood by Saverio Muratori approach on urban studies, because the buildings without connecting routes to open spaces, either public or private, are meaningless [29]. These interpretations have been developed by identifying the current structures of open spaces and their process of formation in neighborhood scale. The form of these routes derived from the transformations in Roman colonnaded streets, is shaped by medieval reuse. The urban fabric of these cities has been transformed from open spaces with large monuments in ancient world, into the forms with narrow alleys and high intensity of buildings in pre-Islam and Ottoman periods. Then, Neglia analyzes the formation process of three open spaces, as case studies [28]:

1. The formation process of traditional bazaars and streets (*Shara*) from the colonnaded streets: The main layout of bazaars and streets has shaped the structure of built urban spaces. Then, their origins date back to pre-development of urban fabric. They are connected to the main hubs or

urban centers (gate, bridge, and squares), prominent buildings (public or religious) or booth markets.

2. The formation process of streets in already existing urban spaces: These streets tend to shape structures of the buildings' fabric.
3. The formation process of dead-ends: These spaces are resulted from intensity of urban fabric in medieval cities.

At the end, Neglia acknowledges that her analysis on formative process of open urban spaces in the cities of Aleppo, Damascus and Jerusalem definitely does not reveal all processes of formation of open spaces in the Middle East. Nevertheless, it does point to the close relationship between formative process of buildings and open spaces fabric. This interpretation suggests that the most important routes resulted from transformation in ancient structure, due to their urban history and the role they played in urban organism and construction of prominent buildings within them. Moreover, process of formation of dead-ends and streets is not connected to a particular phase (e.g. early Islamic, Medieval or Ottoman) in history of Islamic squares, instead, it is related to formative process of intensity in urban fabric: this is the direct consequence of the gradual intensity in urban neighborhoods.

D. Form of Aleppo (Syria) during the Middle Ages (Similar to Article 1)

Like many other Syrian cities, Aleppo represents a gradual development from Hellenistic to medieval cities, influenced by Roman and Byzantine cities. It may explain structure and effects of each phase in urban development through interpretation of buildings fabric. It can happen by using the methodologies founded upon typological notions, derived from Muratori theories in his Italian school at 1960s. In order to figure out the urban fabric, the characteristics of forms, channels, even the rows of threes that still exist today as they existed in the past, are as important as the interpretation of urban form during different historical periods. The study of urban fabric of Aleppo divides into different phases. In this article, Neglia tries to discover the monuments which had been effective on urban fabric of Aleppo. This approach allows her to compensate for the lack of historical information on the structure of urban fabric of Aleppo in pre-medieval periods, and to integrate the fragmented data on structure of urban fabric over the time. This study reveals that the complex, stratified and apparently chaotic form of Aleppo in medieval period has originated from Roman urban plans.

In this article, Neglia has used the cadastral French maps from 1930s which depict form of Aleppo before regenerations, and compared the results with other documents, such as Aleppo maps in different scales, as evidence in urban, territorial and neighborhood level; thematic maps as evidence for previous studies on Aleppo; historical maps, and historical photographs and images in different levels. The data resulted from these analyses have been compared constantly with the existing data on the historical ancient nature, available in bibliographies, photographic surveys and metric analyses on urban fabric. At the end, the comparison is made with data on other urban fabrics of Syria with similar structure to Aleppo.

E. Some Historiographical Notes on the Islamic City with Particular Reference to the Visual Representation of the Built City

Neglia begins the article with a sentence about existence of two fundamental approaches on Islamic cities at the beginning of twentieth century in European scholarship. One approach was followed by those who attributed Islamic cities to the social and religious factors, and the other by those who described it with urban structure and physical features. The first approach was originated from English and German Orientalist studies to represent the real aspect of Islamic cities than the theoretical one. This type of urban system was founded by different western structures upon a different social organization. The second approach was derived from French Orientalist studies which represented a visible knowledge on Islamic cities, since they were emerged by real victories on vast Mediterranean territories. In fact, these approaches have never been independent; they are two different stances which were critically analyzed by modern historiography.

The Orientalist studies on Islamic cities date back to study of North African cities. After 1920s, the scholars like William and Marcias began to describe the prominent features of Islamic cities from different perspectives: architectural, urbanism, economic and social. They all emphasized on unity of Islamic cities. Their studies on North African Islamic cities led to formulation of a single model which was applied to all Arab-Islamic, Turkish, Iranian, and Berber-Andalusian cities. Influenced by works of Max Weber and Henry Pirenne, and on the contrary of European cities, the description of Islamic cities has a public universal base.

Having introduced primary approaches and scholars, historians and research teams of different countries, Neglia goes on with introduction of secondary approaches which are in fact, the revised primary approaches. In this regard, she argues that the primary Orientalist approaches on Islamic cities were criticized, mainly because in that period the social, economic, geographical and historical factors were under consideration. Finally, it was Aga Khan that held conferences on architecture of Islamic cities, leading to growth of fruitful studies rather than the mere abstract and theoretical research. In fact, Aga Khan developed a regional approach which is representative of urban physical studies relevant to morphological studies, type of building and construction techniques in different regions. In discussing this approach, Neglia refers to the 1980s, when there was significant knowledge on the Islamic cities, and then comprehensive series of historical works were developed. The pioneer series among the books on Islamic art and architecture were Encyclopedia of Islam and Encyclopedia Iranica. Then she introduces the books and the individuals who have been contributed in study of Islamic cities with regional approach, noting the numerous research works carried out onward that provide different perspectives from the Islamic cities. Finally, some Islamic cities at 1980s, located in different regions, are investigated as case studies, including Spain, North Africa, Middle East, Central Asia, and Anatolia.

F. Interpreting the Urban Fabric of Jerusalem, Aleppo and Hama at the Dawn of Islam

Neglia believes that in the texts that exploration is impossible, morphological research on structure of buildings can be a useful method to interpret and discuss the process of formation of urban fabric. In this article, she investigates urban fabric of Jerusalem, Aleppo and Hama as case studies and delineates the process of development of these cities at the dawn of Islam, during 12 to 17 centuries. It is found that complexity, stratification and apparently chaotic form of urban fabric in Jerusalem, Aleppo and Hama at the early of medieval period, is outcome of the overall urban plans with Hellenistic-Roman origins. Then, she argues that the pre-Islamic urban fabric of Jerusalem has originated from three urban Roman models and then directed into three different paths: one follows the Hellenistic urban structure and its traces is seen in south of Pompey Camp and west of The Temple Mount regions. The second model is imitated from the Tenth Roman Army Camp and is related to a neighborhood in today Armenian Quarter. And the third model is consistent with Aelia Capitolina Roman bazaar. The pre-Islamic Aleppo follows three Roman model in urban development as well: at the first phase, it follows a Hellenistic orientation by adding new blocks in east of the former settlements. At the second phase, due to the need to constructing new routes connecting Aleppo to other Syrian urban centers with Roman structure (e.g. Antioch, Chalcis), an 18-degree deviation from its original orientation is occurred. And at the third phase, the territory is split by Quweiq river valley and then kept along its main direction. Moreover, in Hama, the urban structure follows three phases: the first phase of development follows Roman model, with adding new blocks to the north of Hellenistic settlement, in addition to construction of colonnaded streets connecting to Roman or Greece towns. In the second phase, the orientation of these colonnaded streets, and as result, the orientation of urban fabric, was connected to the older part of the urban fabric. On the other hand, effect of Roman Camp and public buildings on the urban fabric of surrounding made a new phase in urban development of the pre-Islamic Hama.

VI. DISCUSSIONS

By review of Giulia Annalinda Neglia's articles, some common themes are found in her works. The most important points are her methodology in investigating Islamic cities, i.e. morphological studies of Saverio Muratori, known as Italian school, as well as analysis of urban fabric of Islamic cities based on typo-morphological processes. In this regard, these methodologies are explored and criticized in this section.

Experts and scholars of urban morphology criticize how urban analysis is dealt with in Italian school, because form of city is considered a typo-morphological process, meaning that form of city (i.e. morphology) is explained based on a detailed classification of buildings and open spaces with respect to "types" (i.e. typology). In a workshop on general principles of typological analysis, Neglia explained it through two case

studies. She argues that the research method of architecture, urban fabric and urban landscape developed by Saverio Muratori School, was indented for designers. In this regard, Samuels (1990) states that typology or typo-morphological analyses have been often limited to the historical cores of historical cities and towns [24]. In addition, Italian urban planners believe that morphologic analyses are applicable only on the field of historical protection, and their application in contemporary designs and constructions are limited, because disintegration of modern urban fabric requires a different approach on process of formation of the city. Critics of typology and urban morphology called this phenomenon 'typological crisis' [25]. For this, geographers criticize that lack of quantitative base in urban morphology will damage its applicability in predictions for future of cities. However, Neglia, pointing to typology of urban fabric, claims that the concept of "type-logy" is used in process of these analyses that could be defined as 'the organic sum of elements in a given time and in a limited area'. Then, "typology" does not mean an abstract of urban forms. She believes that in this method, in order to reconstruct phases and models of an urban fabric, the behaviors of buildings and urban fabric in a given time are examined through the signs which are present in the plan of city. In addition, Larkham (1998) notes that an optimal method can include the detailed studies of morphology on history, development and physical form, together with systematic estimations of the qualities related to these forms, and finding the expectations of users, before transition to designing solutions phase, that is, the method neglected by Neglia. Thus, typo-morphology will be an integral part of urban planning [21].

Others believes that urban morphology is so busy for finding an absolute polished theory and involved in concepts like typology of lands in medieval cities that ignores the present problems in urban development. They note that we do not need more theories for emphasis on some clear concepts such as cycle of changes in lands or demarcations, but we have to try to bring these concepts into the everyday literature of people who build form of our cities [26]. Therefore, it can be concluded that use of this approach by Neglia, without taking into account its weaknesses, justifies the criticisms to her thoughts. Another criticism to Neglia is related to her selected school of thought, known as Italian schools, founded upon thoughts of Saverio Muratori, without making any improvements in its principles. Neglia declares that our school encompasses principles of Muratori and intends to restore the important role of history. For interpretation of this claim, it is worthwhile to introduce the Italian School briefly.

During 1950s and onwards, typo-morphologic studies began in Italy by Saverio Muratori (1910-1973). Muratori was unhappy from effects of modern architecture on existing settlements and cities. He and his follower, Gian-Franco Caniggia (1987-1933), began to analyze the process of formation of city in the Italian old cities and based their own design theory on results of that analysis. Their methodology was founded on classification of buildings and their related open spaces, form the initial phase to the last transformations

occurred in them. Over the time, their works affect directly the theoretical and practical dimensions of architecture in Italy, and indirectly the application of building types in architectural design of North America. Muratori believed that roots of architecture should be traced back to a more coherent tradition of urbanism which had been governed from the ancient times to 1930s, rather than to imagery plans of modernists. He emphasized on understanding of urban structures only through study of historical evolution, relying upon typology of buildings for urban analyses. Urban forms are outcomes of different beliefs, preferences and actions, expressed through the buildings and their surrounding spaces (gardens, streets, etc.). These buildings and spaces – called "artificial landscape" – can be categorized into different types, each representing the character of respective structure. These different types create typology of buildings and their open spaces, which in turn, define the nature of urban fabric [18].

Neglia founded her analyses regarding form of the Islamic city on principles of Muratori School, without making any change in the principles. In this regard, the scholars of Italian school, including Neglia, discuss on the relation between typological analysis and design theory, while another school on morphology of cities has attracted the attentions, i.e. French School. At the late of 1811, The Versailles School of architecture was founded in France by architects, Philippe Panerai and Jean Castex, with collaboration of sociologist, Jean-Charles DePaule, as part of the dissolution of the Beaux-art school. The French had a critical view to history of design theory. In France, sociologists, historians, geographers and planners were collaborating with architects to achieve a deeper conception of the city. This approach of typology is not only limited to the fields of design and geography, but also it can encompass the insights on literature and social sciences; while in Italy, urban morphology was a subject which engaged the architects and geographers. Then, lack of an inclusive insight in Italian school is the reason why Neglia thoughts are being criticized, as many times she has declared in articles that she is following teachings of the Italian school.

The third school of urban morphology is the English School. Contrary to Italian school, this school of thought does not elaborate types of individual building in details, and the geographic dimension is predominated over the architectural one. In Britain, the research on historical process of typology and its interconnection with planning and architecture, similar to what had been conducted in Italy, is not seen. Even, the studies conducted on recognition of building types are primarily dealt with historical-geographical processes in urban scale, rather than building typology [23]. This is while that Neglia has stressed several times on types of buildings, streets, even dead-ends.

According to the above-mentioned explanations on Muratori School, and the methodology used in Neglia papers for study of urban fabric, it turns out that she has directly applied Muratori method on study of urban fabric of Islamic cities. In fact, she has explored fabric and form of buildings, streets and open spaces, even the layout of trees and columns, emphasizing that they are artificial landscape of the written

history of city.

Furthermore, the analyses suggest that she has stressed on “continuity”, referring to the changes and developments in form of urban spaces over the time. It means that she thinks of the formation of Islamic cities over the time, not related to a specific period. She acknowledges that structure of urban fabric in Islamic cities inherited from Medieval-Ottoman periods, on the basis of Roman-Hellenistic-Byzantine models. She declares that ‘Islamic cities are resulted from the gradual continuous transformations from the pre-Hellenistic to Ottoman and Medieval cities, even in some cases, traces of Hellenistic-Roman-Byzantine cities are clear today, such as Roman columns in the streets, Hellenistic directional settlements along the routes and connecting to the strategic nodes of city, even the imperial urban standards related to Hellenistic-Roman periods. Of course, these traces are not readable directly, and in some places, even they are renovated or reconstructed’. She thinks of the streets and dead-ends in these cities as result of density in urban fabric and existence of compact buildings, and not influenced by Islamic forms. In her research, she describes the overall structure of Islamic cities as a linear model, and at the same time, insisting that forms of Islamic cities are very complex. The complexity, stratification and apparently chaotic form of Islamic urban fabric are derived from the urban plans with Hellenistic – Roman origins, and she believes that recognition of these forms needs the typological analysis on form of buildings and open spaces. Neglia has prepared a classification of urban fabric of the Islamic cities, concluding that fabric of each city is influenced by its own period. She further specifies the urban model and the respective period of the fabric in each district of a city, and is strongly opposed to developing a single framework for all the Islamic cities.

VII. CONCLUSION

Urban morphology has been studied under different approaches and scientific systems. A wide range of scholars, including historians, architects, geographers, linguists, Orientalists, urban planners and Islamic scholars have long worked on study of Islamic cities, their characteristics and morphology of Islamic city. Urban morphology is the study of structure and shape of city, consisting of all permanent, fixed, huge and human-built physical elements, like buildings, streets, routes, open spaces, and natural landscape such as rivers, mountains, valleys etc. Giulia Annalinda Neglia is among the scholars of Islamic morphology. She is associate professor at University of Bari and active member of Aga Khan, who began her research on urban morphology of Islamic cities at postgraduate course with conducting a thesis on “Morphology and typology in renovation process of Islamic architecture: urban fabric and courtyard houses in Jerusalem” in 1999. Then to receive PhD on Architectural Design for Mediterranean Countries, she expanded the research and got her post-doctoral degree from Islamic Architecture Center. In the last two decades, she has published several books and articles on Islamic cities. So, this study took a critical approach in analyzing her thoughts, approaches,

methodologies and the way of dealing with the Islamic cities. The findings of our review indicated Muratorian typological approach on urban morphology analyses conducted by Neglia, as stated before, many criticisms had directed at this approach. Neglia thinks of the morphology of most of the Islamic cities as linear, but she also believes that it entails complexities to recognize which an inclusive study on forms and fabric of buildings and open spaces, as the written history of city, are required. In doing so, a typological classification of the urban fabric should be prepared too. By insisting on “continuity”, she states that the current form of Islamic cities is outcome of urban programs over the Roman and Hellenistic era, and concludes that morphology of these cities is resulted from continuity of transformations over the time.

In summary, it can be concluded that Neglia methodology in dealing with interpretation of urban fabric of Islamic cities is Muratori typology, as opposed to developing a single framework for study of urban morphology. She believes that fabric of each district in a city following a distinct urban model, in particular, Hellenistic and Roman process, emphasizing that to understand the form of a city, the tangible and intangible transformations should be considered, because form of buildings and the surrounding open spaces act as written history of the city. Moreover, the apparently chaotic form of Islamic cities should be studied by typological approach, focusing on transformations in form of buildings and their surrounding open spaces.

REFERENCES

- [1] Lynch, Kevin, “A theory of good city form”, Bahraini, H, Tehran University publication, Tehran, 2005.
- [2] Chowdhury, T. A.; Scott, D. M., & Kanaroglou, P. S. Urban Form and Commuting Efficiency: A Comparative Analysis across Time and Space”. *Urban Studies*, 2012, 50(1). 191-207
- [3] Ceron Castano, I, & Wadley, D. Conceptualization and System Design in the Monitoring of Urban Form. *Planning Practice & Research*. 2012, 27(5). 295-511.
- [4] Hafeznia, M, “An Introduction to the Research Method in Humanities, Samt, Tehran, 2014.
- [5] Neglia, G. A. Some Historiographical Notes on the Islamic City with Particular Reference to the Visual Representation of the Built City. *The City in the Islamic World*. Jayyusi. S.K.; Holod, R.; Petruccioli, A.; Raymond, A (Ed.), 2008, 3-46: Brill.
- [6] Neglia, Giulia Annalinda. Interpretation of the urban fabric of Jerusalem, Aleppo and Hama at the dawn of Islam. The University of Pennsylvania, 2008.
- [7] Neglia, Giulia Annalinda. ALEPPO: Processes of Formation of the Medieval Islamic City. Politecnico di Bari. Dipartimento ICAR. via Orabona 4. 70125 Bari. Italy, 2009.
- [8] Neglia, Giulia Annalinda. (2009). Medina. Notes of the Urban Landscapes of South-Eastern Mediterranean Cities. Bari: Poliba Press.
- [9] Neglia, Giulia Annalinda., Moccia, Carlo. The Courtyard house in Kairoun. *The Mediterranean medina*. Ed. Ludovico Micara. Attilio Petruccioli. Ettore. Vadini. Rome: Gangemi, 2009, Pp. 173- 178.
- [10] Neglia, Giulia Annalinda. An interpretation of the urban fabric: the structure of pre-Islamic Aleppo. *Urban Morphology*, 2006, 11(1), 43-58.
- [11] Processes of formation of ottoman Damascus, The Transformation of a Medieval City. Neglia, Giulia Annalinda. *Bulletin d'etudes orientales*. 2012.
- [12] Neglia, Giulia Annalinda. Ideal models in the formation of Kashan, Iran. *Traditional dwellings and settlements review*, 2010.
- [13] Neglia, Giulia Annalinda, D’Amato, Cladio, Petruccioli, Attilio, Rociola, Giuseppe, Rubini, Claudio, Catania, Domenico. Interpreting of the Urban Structure of Old Al-Quds/Jerusalem. Organisation of the Islamic Conference (OIC). Research Centre for Islamic History, Art and

- Culture (IRCICA), 2015.
- [14] Neglia, Giulia Annalinda. Process Typology and Formative Processes of Middle Eastern Urban Open Spaces. International Conference on Architectural Research. Milano, 2014.
- [15] Neglia, Giulia Annalinda. The Fforma urbis of ALEPPO (Syria) during the middle ages. Firenze Architettura, 2000, 4–17.
- [16] Neglia, Giulia Annalinda. Il paesaggio del Salento leccese. Struttura naturale e forme di antropizzazione. geo-morfologica, 2011.
- [17] Gauthier, P, & Gilliland, J. Mapping urban morphology: a classification scheme for interpreting contributions to the study of urban form. Urban Morphology, 2006, 10.1. 41-50.
- [18] Moudon, Anne Vernez. Getting to know the built landscape: Typomorphology in Ordering Space: Types in architecture and design. Karen A.Franck and Lynda H. Schneckloth (eds.). New York. 1994, p.308.
- [19] Moudon, Anne Vernez. Urban morphology as an emerging interdisciplinary field. Urban Morphology, 1997, 1,3 10.
- [20] Moudon, Anne Vernez. The changing Morphology of suburban neighborhoods In: Attilio Petruccioli (ed.). Typological process and design theory. Agha Khan program for Islamic Architecture. Conference proceedings. Cambridge. Massachusetts, 1998.
- [21] Larkham, Peter J. Urban Morphology and Typology in the United Kingdom in Petruccioli. Attilio (ed). Typological Process and design theory. Agha Khan program for Islamic Architecture. Conference proceedings. Cambridge. Massachusetts, 1998.
- [22] Whitehand. Jeremy W.R. Conezenian Urban Morphology and Urban Landscapes in Proceedings. 6th International Space Syntax Symposium. Istanbul, 2007.
- [23] Pourmohammadi, M, Sadr Mousavi, M, Jameli, S, “A review on urban morphology schools”, Arid regions geographic studies, 2011, Volume 2, N. 5.
- [24] Samuels, Ivor. Architectural practice and urban morphology In The built form of western cities. T.R. Slater (ed.). London: Leicester University Press, 1990, pp.415435.
- [25] Aymonino, Carlo. (1976). Il significato della città. Bari. Laterza.
- [26] McGlyn, Sue., Samuels, Ivor. The funnel, the sieve and the template: towards an operational urban morphology. Urban Morphology, 2000, 4(2).7989.
- [27] Neglia, Giulia Annalinda. Curriculum vita et studiorum, 2021. Online: https://www.poliba.it/sites/default/files/cv_prof.ssa_giulia_annalinda_neglia.pdf
- [28] Neglia, Giulia Annalinda. The cultural meaning of Aleppo: A landscape recovery for the ancient city, part of: Critical studies in Architecture of the middle East, Chicago, USA, 2020.
- [29] Cataldi, Giancarlo., Maffei, Gian Luigi., Vaccaro, Paolo. Saverio Muratori and the Italian school of planning typology. Urban Morphology, 2002, 6(1), 3-14.