

# Interplay Between Design and Environment: The Historical Urban Form of Morella and the Dialogical Approach in the Contemporary Design.

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## Introduction

Urban Form's memory is a new tool for understanding the composite nature of Morella, in Spain, today. It means to explore the relationship between culture and city. It can be done through different critical and regional perspectives on use of public space. The purpose of this paper is to focus upon the relationship between memory, historic urban form and contemporary design.

The historic core of Morella is composed by an urban sequence of open spaces and pedestrian circulation layouts. Spiro Kostof already pointed out that in the history of cities, the organic fallacy cannot account for spontaneous urban growth, unconscious or unplanned urban design. As Aristotle recorded in his urban theories, Persian know-how was inherited in Ancient Greek town planning, and was carried through the rest of Europe through the ancient institution of the Roman cadaster, dividing private and public property. Originally the purpose was to collect taxes from agriculturally, zoned land. This ancient planning tax policy still exists in many countries (Saura, 2014). In Morella, ancient property lines still define today urban space and streets. Space flows between parts of the city through historical, agriculturally used plots of land, inside and outside the old fortification walls, completely conserved until today.

## Methodology

To clarify the types of memory that the architect can use to learn from the city, we use Paul Ricoeur's theory (Ricoeur 2010). He classifies the traces that feed the memory in three types: the first refers to those that are "written and archived", such as photographs, urban studies, master plans, books, drawings and engravings, which the architect can see. The second type of trace is the affectation that results from the clash of a "highlighted event". In the case of the architect, it would refer to other works that have affected him, architectures, projects, buildings, paintings, etc. Finally, the third type of trace is the one that belongs to the field of neuroscience, the "cortical-cerebral trace". These traces cannot be discovered from intuition. Working of memory recovery is necessary.

Post occupancy evaluation has been done through space syntax mapping and ethnographic data gathering. Space syntax is a set of theories and techniques for the analysis of spatial configurations (Hillier, 2014). In Morella, the urban form of the historic core has kept in his memory the existence of a gate in the old fortification walls, which currently does not exist and the inhabitants have forgotten. To explore this memory we have searched on historical drawings, plans, ethnographic reports, with archaeological exploration and on the current cartography with space syntax mapping. The methodology used includes therefore space syntax but with a certain digital vs analogic resistance; there are surveys and layers of meaning that can only be registered by hand drawings and by quick sketches that capture the moment; by video and by other media, e.g., to accurately record histories of urban form, observation of how people use public spaces. A digital v.s analogic resistance is also found among professionals involved in architectural and urban design practices in Morella. Enric Miralles used multiple data layers with his own "hand" drawings by consciously avoiding impressive, "new technology" graphics; for him they implied arbitrary decision-making.

The architect makes bridges between the new design and the history of profession, of place and of society. Based upon the analysis of the contemporary urban design practice of the architects and town planners Enric Miralles and Helio Piñón outside the old fortification walls of Morella, we are focused on analyzing architecture in relation to historic urban form, from the dialogical models defended by Mijaíl Bajtín (Bakhtin 1982).

## **The City is Memory and the City has Memory**

The past appears to memory as an image that has three characteristics: presence, absence and anteriority. The image is not a utopia, it's a temporary distance. From the point of view of remembrance, of recognition, survival of images from the past is "a small miracle" as Paul Ricoeur says. (Ricoeur 2006)

Metaphor has an important role in order to understand the enigma of absence and presence at the same time. This is illustrated in the metaphor used by San Agustín in *Confesiones*, where there is a "Palace of Memory" (*aula ingenti memoriae*) with a few deposits where memories are kept, which are taken to the square to bring them to the present. The engraved on wax is another interesting metaphor used by Plato, which illustrates that the things that someone wants to remember, what he saw, felt or thought, are engraved on the wax. Each one has waxes of different qualities and what is erased or not engraved is forgotten. (Rivera Rivero 2012)

On the one hand, iconographic heritage about the city that has remained, as paintings, engravings, frescoes, which have withstood all changes of power, are memory. The "portraits" of the city are the testimony of memory that someone wanted to project for those who will come after. And of course historical descriptions present in texts as old as the Old Testament or the Koran are memory. In all times and in all cultures people have conceived the city as an essential part of their identity. Also the archives and urban cadaster, that are its tax and topographic dimension, document the economic and patrimonial life of the city, but these documents do not have the capacity of synthesis and the fascination of the images. That's because in that time, social memory was based mainly on images, because very few people could read and write. Morella has preserved its old fortification walls, represented over time in numerous engravings, frescoes, battle pictures, and maps, as a symbol throughout centuries. The fortification walls have not been preserved exclusively for practical defense issues; much more important has been the image of the city, which has changed with culture and new knowledge.

On the other hand, the city, created by man during its millennial history, is petrified memory. As Cesare De Seta writes:

*"Architecture, the basic element of this complex system that is the city, is petrified memory" (De Seta 2002).*

Some memory traces exist at present time and are easy to detect with a little intuition or search, but there are others that require a remembrance work. These have not been erased, but have become inaccessible. There is a memory in built form, in built architecture, but the architect needs more tools to find it.

## **The Memory of the Urban Form: Space Syntax and Connectivity and Integration of Public Space Outdoors**

A definition of public space in Morella is a sequence of open space and pedestrian circulation layouts similarly found either in the architectural treatise of L.B. Alberti or in even more recent urban morphology theory. R. Amirante writes,

*[...] piú che all singolari forme del progetto, si guarda stavolta alla sua capacità di intervenire sulla anonima morfologia di un "piazzale" per trasformarlo in un insieme "composto" di piccole piazza differenti per dimensione e carattere. (Amirante, 2012).*

In GIRAS research group at the School of Architecture of Barcelona, the morphology of urban settlements, and its dynamics, is focused on how the discipline of history of architecture and town planning conceptualize cities at several scales. For example, circulation layouts are studied not only by a hierarchy of car traffic at a large scale but also at the smaller, community pedestrian scale. Post-occupancy has namely dealt on how people move about urban space. This kind of movement becomes in turn a "mental map" or diagram, a new significant layer to evaluate social integration and connectivity levels. As Bill Hillier writes,

*[Social integration and connectivity] oriented to the variables that designers and developers could manipulate, namely the physical and spatial variables of the built environment itself. (Millán, 2012).*

The architect needs analytical tools, which incorporate geographical, historical, aesthetic, psychological and social knowledge, of an interdisciplinary nature, that help him to understand the vestiges of the past in the present, to anticipate local and global impacts of any urban or architectural change. Space Syntax arises from the interaction between mathematics, architecture, computing and social sciences, as a theoretical and practical tool, which can be used to systematize millions of data and to help us to detect results of negative impacts. However, concepts of social integration and connectivity only prove useful when they are considered at the programming, early stages of the design process, only with accurate, historic mapping sources. If we use this tool in post-occupancy studies, maybe we will find some historical mistakes on urban planning, but it may be too late to rectify.

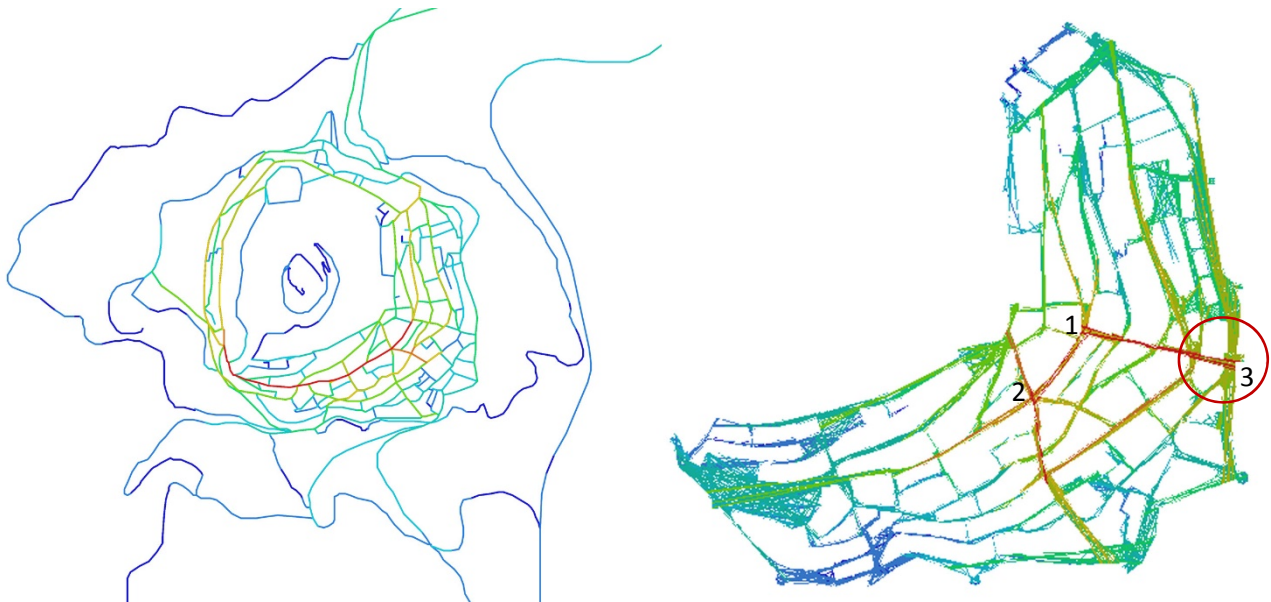


FIGURE 1a. Map of the road structure of Morella with the syntax depthmap model, analyzing the connection in and around the city. FIGURE 1b. Map of visual integration in public space outdoors inside the old fortification walls in Morella.

In FIGURE 1a, the map was made with the help of information from computer programs about the probability that pedestrians and drivers would choose one way or another, and which public spaces and parks have the greatest and least provability of being used. The color scale illustrates the results, with blue the least likely and red the most likely. This map captures the essence of Morella: people moving and interacting in space, sharing, creating and innovating; a social and economic network, played out in streets and public spaces. The map illustrates how the starting point for Spaces Syntax's studies is the interaction between public space and public life. However, the way information is presented is not city life and situation at eye level, which is typically the case for public life studies. Rather space syntax represents a more technical, logical and abstract version of public life studies.

In FIGURE 1b, the color scale illustrates a degree of visual integration. In the red area in common in these two maps, there are the town hall's square (1) and the meeting point popularly known as "The five corners"(2), both of them in the main street. These two places have a good visibility regarding the whole core of the city and full occupation in lower floors, with commercial activities and public uses. Nevertheless, in the FIGURE 1b an important red line goes from the Town Hall to the perimeter area (3). Here there is no public life; everybody has forgotten this place because there is nothing to do. It is a priority car street. On one side of the street there is the fortification walls and on the other side, the back of new housing building. From the depthmap graphics, we can conclude that in the past there was something important there. The red line indicates the best visual integration, therefore, a good visual control from far away to this point. The urban planners in the past did not thought the city to give maximum accessibility to a point where there is nothing. In historical documents, military maps and engravings, there was a gate of the fortification walls that has disappeared and an important road outside. This was the nearest gate to the town hall, where there was also the prison and the judicial power of the city.



FIGURE 2a. The lost road. Morella 1730.

FIGURE 2b. The lost gate. Engraving from Morella by Tomas de Rocafort, 19<sup>th</sup> century beginnings.

In addition to the historical images and plans, archeological exploration is essential in locating the gate. In the place where we are focused, there is a tower with a gate that is five meters below the street and in order to allow the access there are a wall and stairs (see Figure 3). If we look at the old fortification walls next to the Tower, called *Alòs*, we can find some of the stones of the destroyed arch of the city gate. This arch is five meters below street too. The remains can also be seen from outside the fortification walls. Nevertheless, the road outside has disappeared, and the terrain has a steep slope.

Ethnographic reports, give us more information. We know that when crossing the lost gate to enter in Morella, there was a square with a cistern that was covered in 1968, and we can still see a water source outside the old fortification walls. This is a very common case in medieval cities. Gamundí, an inhabitant of Morella writed a book, *Our Streets*, he said:

*“Antiguamente esta calle era una plaza con la misma denominación actual (...) la plaza del Aljibe perdió el tramo que estaba insertado en la calle de Rosario, quedando la parte restante con el nombre de calle en vez de plaza del Aljibe(...) Delante de la casa nº41 de la calle Virgen del Rosario había un aljibe, de ahí el nombre de Plaza del Aljibe, que se cegó en 1968”.* pp.6 (Gamundí Carceller 2007)

During war periods it was common to cover the gates to have greater military control. In the *History of Morella and its Villages* (Segura Barreda 1868) it is explained that the gate *Ferrisa* was blocked in the Civil War, but it was opened again in 1649, and that the gate *La Nevera* was blocked at the beginning of the Carlist wars, but it was opened in 1868. The gate *Els Estudis* was the only one left open in both wars. But the gate *Alòs* never opened again because an embankment was built that raised the street five meters above.



FIGURE 3 The remains of the missing gate; View of the street that goes from the City Hall to the Tower *Alòs*, currently hidden by the street that is five meters above; View of what was the *Aljibe* Square;

There is something in the immediate environment to the Tower *Alòs* that does not work. It is an accumulation of problems that have been created by ignoring history and memory of this place. In this place, we have never seen children playing, people talking, etc., pedestrians have no space because it is a road for cars. Furthermore, the housing building has the parking door in front of the Tower *Alòs*.

## **The Dialogical-Historical Approach in the Contemporary Design: Two Public Building Outside the Old Fortification Walls of Morella**

From the dialogical models defended by Mijaíl Bajtín (Bakhtin 1982), GIRAS Research Group has analyzed for years the historic urban form and architecture, trying to clarify how the architect can at the same time, innovate and preserve, understanding that in the specific of each place are the seeds for a good modernization. (Muntañola 2016)

The relations between project and history are reciprocal; history "feeds" the project, and the project "feeds" history. Only from the knowledge of history the architect makes a new project and only from the renewed look of the project the history is enriched and valued.

*"Human constructions also have a duty to preserve the past and give us the possibility of experiencing and glimpsing the continuum of culture and tradition."* J. Pallasmaa, pp. 151 (Pallasmaa i Fuentes 2010)

The primary school of Enric Miralles and Carme Pinós (1986-1995) and the secondary school of Helio Piñón and Nicanor García (2001-2007) are two important public buildings located in Morella. In the primary school, the architects had the difficult task of design a building outside the fortification walls that envelop the city, in front of the landscape, the topography of steep slope and the castle, when the Valencian heritage administration had already ruled out a project because it was considered that it did not respect the historical value of the city. After few years, the Secondary School had the same conditions and one added, the School already built in the neighboring lot.

They are two important buildings for the city that write a new stage in its history and for its inhabitants. They revive with their differences an architectural debate on the relevance of different ideas in the design such as: the historical and social context and the commitment with the International Style; about starting each project from the place and using criteria of economy, means and resources; on memory and logic; about the work that is lived and the work that is explained by itself; about the perception with all the senses and the importance of the visuality, etc. They are two very published works that once again place Morella in present, opening the debate between architects, users and the general public about the good architecture and the relationships that it establishes. The relevance to compare these two buildings of Morella, as two archetypes, is not the objective of this communication, but this work has been published recently (Beltran, 2015).

We are focused on the relationship between the shape of these buildings and the shape of the city. The primary school designed by Miralles has triangular shapes that reminds the square of the Church *Santa Maria* of Morella, situated at the top of the city (See the yellow marks in Figure 4). From a corner of the square there is a great staircase that come across all the main streets and communicates the square with the lower part of the urban form. At the school, there is a ramp that goes through the entire project from the highest part where there is the main triangular room, considered the most public space in the school, to the lowest level establishing a relationship between all the parts of the project.

The architecture of Miralles is made to emphasize the actions of the man; to enjoy the light, the space, the views, and to attract the physical sense of the movement. The detail scale is a smaller representation of the general conception of the building that reminds to the specific place. Some details of the school remind rocks in the castle, with its cracks, the balconies allow looking the movement of people above, as in the city, etc. The relation with the history of place is an assimilation of abstract and vernacular.

On the other hand, Helio Piñón saw that the logic of the city was given by two directions, one that follows the contour lines and another that follows the slope. Thus solved the program with horizontal corridors and vertical stairs. H. Piñón explains in an interview about this project:

*"When communicating these planes in a transverse direction with stairs, spaced regularly, we arrive at the same solution that the first neighbors of Morella adopted when they decided to settle in the southeast slope of the hill that they had decided to crown with the castle"*

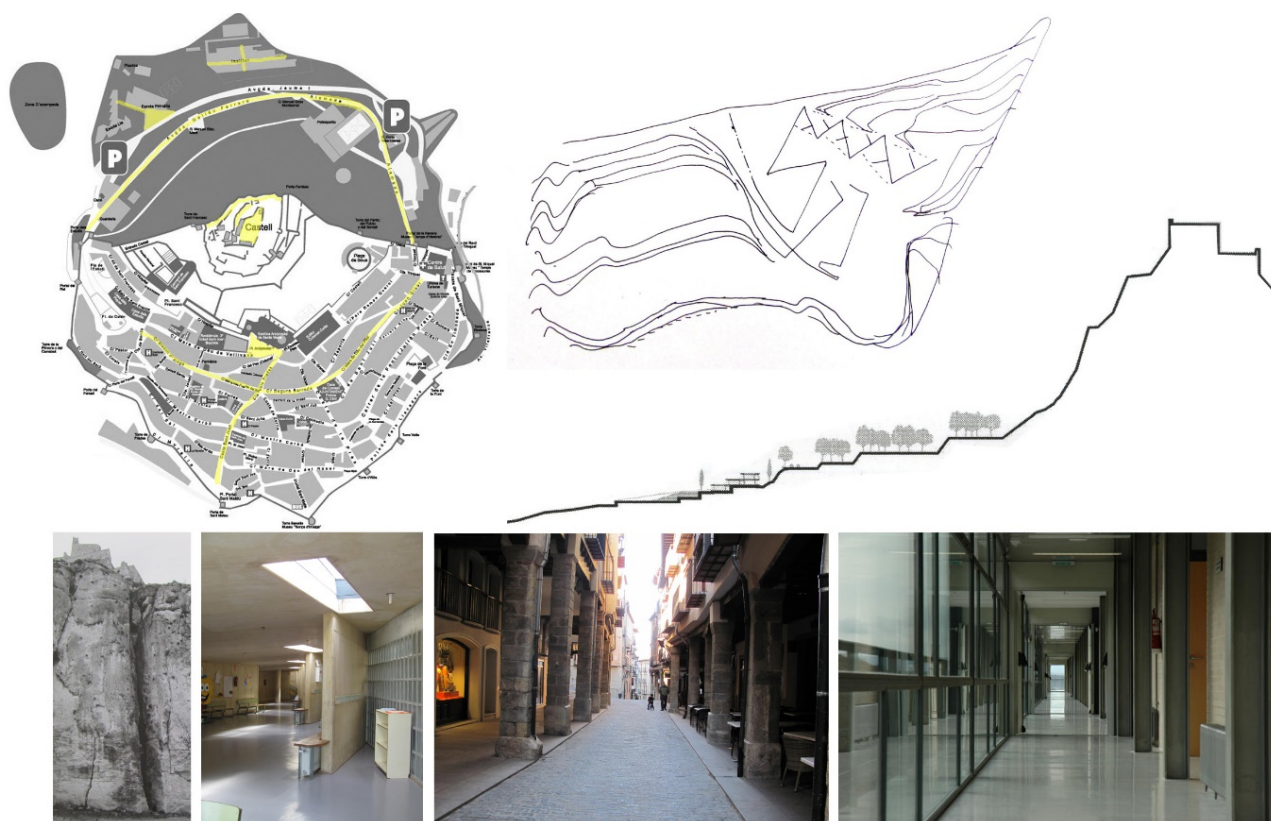


FIGURE 4. We can see in the figure two drawings of the architects, the first from Enric Miralles and the second one from Helio Piñón, in relationship with the castle of Morella. The first picture is a photo of the rocks of the castle of Morella, the second picture a corridor in the Primary School, the third picture the main street of Morella, and the last picture is a corridor of the Secondary School.

The references between Miralles' architecture and the configured form of the city are not obvious. The relationship between the square of the Church *Santa Maria* and the triangular polyvalent hall of the school, between the staircase San Juan and the ramp that divides and organizes the School, etc. The new design establishes relationships with the physical memory and social memory of people, between what they already know and what is new. In the secondary school this relation is not physical or social. It is a result of the logical organization of the historic streets. These streets were designed following the contour lines of the topography and were communicated by vertical staircases that came across them. In the case of Piñón's design, the main conscious relationship is with the history of the profession, with the International Style, and this school is possibly one of the last works that represents it with great fidelity.

According to P. Ricoeur, each architect is determined in his relationship with an established tradition. Insofar as the context keeps within him the trace of all the life histories of the citizens of before, the new design will project the new ways of inhabit that will be integrated into the mess of already outdated life histories.

## Conclusion

Space syntax adds to traditional urban morphology methodology and proves to be extremely useful to study the programming and evaluation stages of urban design. A prerequisite shown in this paper claims the need for an accurate choice of historic maps and ethnographic reports, data previously gathered at a qualitative, interdisciplinary level.

In the study about the missing gate *Alòs* in the old fortification walls of Morella, we have detected a negative impact. But, the traces of the gate *Alòs* have not been erased, they have become inaccessible. Urban form is studied with this methodology in order to locate unconscious conflicts and demonstrate that the urban form has memory. Recovering the memory that has been forgotten is a tool to understand, discuss and make

controversy. Only from research, we can configure a critical point of view. At the end, those who will decide the history will be the inhabitants of Morella.

The purpose of this communication is not a police research, we do not have to look for guilty for what it was done wrong, we want to look back to understand the present. The “duty of memory” in the case of historical heritage is often not a citizens claim, but the architect has the opportunity to remake history with the project.

One of the lessons of Freud's Psychoanalysis is that we forget less than we think and this idea can be used in urban form studies; we can find a traumatic experience of childhood with the help of specific processes, what is called “talking cure”. Nowadays medicine proves how we can recover the mobility of an arm from the recovery of the feelings of moving it, which are in the past, but can be brought to the present and change the future. Happy memory is a balance between remember too much and forget too much.

Future, studies are needed to fatherly predict the impact of new infrastructure and the contemporary design upon cultural heritage and upon the social life. The memory of urban form and the dialogical-historical approach in design can help to evaluate this impact.

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