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Urban Morphology Repertoire for the Good Living

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Abstract

Cities face social, environmental and infrastructure challenges that interfere with their ability to provide Good Living for the citizens. The Good Living concept originated from the original Andean and Amazonian peoples' Dear Life idea, which holistically establishes the relationship of communities with their territory. Therefore, it is possible to promote more sustainable and healthy management for the city. The present paper discusses the perception categories of physical attributes in the urban public spaces through the Good Living perspective. The analysis was based on the urban elements proposed by Gordon Cullen, Kevin Lynch and Christopher Alexander. Cullen's elements allow the understanding of landscape qualities. Lynch's elements structure spatial legibility. Alexander's elements point to positive patterns of spatial configuration. The analysis considered attributes and relationships among the elements in order to build a matrix arrangement of environment physical scales – building, street, block, neighbourhood, city and region – and the Good Living qualities. The resulting matrix pointed out overlapping and interdependent clusters. The identified clusters were 1. Territory Discontinuous Elements; 2. Territory Continuous Elements; 3. Territory Properties; 4. Personal Recognition Elements; and 5. Social Elements. The clusters seem to tend towards Good Living status, moving from static spatial elements to the collectively used territory. The structured outcome of the morphological references contributes to developing a repertoire for urban public spaces design oriented to Good Living. Urban design projects based on this structure bring about more solidary, inclusive, healthy and social relations delivering a relevant tool for the sustainable urban planning process.

Keyword: *environmental urban planning, design elements, well-being.*

Introduction

How to get technical answers to subjective questions such as improving the well-being in cities nowadays? Which elements of urban morphology could stimulate more solidary, inclusive, healthy and sustainable social relations in public spaces? In the face of multiple crises within the urban environment, cities need sustainable urban planning, which demands compatible urban designs for diverse public space situations. Therefore, designers must build up suitable repertoires. Perception categories of physical attributes in the urban public spaces are useful tools for morphological analysis and urban design. In order to promote more sustainable and healthy management for the city, this paper aims to introduce a repertoire for urban public spaces design oriented to Good Living based on the urban elements proposed by Gordon Cullen (1961), Kevin Lynch (1999) and Christopher Alexander (1977).

The next two sections clarify the guide concept of the Good Living and the three morphological references combined to approach urban public space forms by means of this concept. Methodology describes the data

and procedures used to obtain the results and how to replicate them. It shows how the research was designed, its assumptions, the conceptual framework on which it relies on and the assessment process. Then, graphic results are presented to substantiate a discussion on the perception of categories of physical attributes in the urban public spaces through the Good Living perspective. In the end, the research goal was achieved by delivering a tool for the sustainable urban planning process to be tested in future urban design projects to bring about more solidary, inclusive, healthy and social relations in cities.

The Good Living

In the last fifty years, awareness of the finite nature of resources and the degradation of the environment has led to the need to review the forms of human use and occupation of geographic space. In this path, it is noted that the anthropocentric view prevails, that is, the human being remains apart from his environment, not being understood as a part of it. In a deeper perspective on this relationship, the Good Living (Mamani, 2010) presents itself as a concept that simultaneously encompasses environmental preservation and local immaterial heritage, in order to go beyond the sphere of individual well-being, which is considered, but as part of the totality represented by the common good, which includes the right to a healthy and sustainable ecosystem (Sampaio et. al., 2017). It is about the valorisation of human interactions with the environment through ancestral cultural practices, having its origin, greater diffusion and recognition in Bolivia and Ecuador, countries in which it has even been legally incorporated (Röthlisberger; Fajardo, 2019) . Such legislative precedent concretizes the combination of knowledge based both on science and on collective ancestral knowledge. Therefore, the understanding of the role of human beings in the environment and the perspectives of innovative intervention in public policies aimed not only at the necessary adaptation of cities to the context of environmental challenges of the 21st century, but also to the needs of communities that they conform and give them life (Röthlisberger; Fajardo, 2019).

The interaction Observer-Constructed Environment

Observer-Constructed Environment Interaction, in which "interaction" refers to active observation, as it follows by looking at the spatial interpretation and reflection by a defined observer. However, the standard obtained is not always universal, nor is it suitable for all cities. Auxiliary parameters that determine the objectives of urban intervention, such as improving the well-being in each place, are necessary for an adequate filtering of the standards to be used in the reading of the space and in the initial plan of purposeful action.

Classical urban morphology authors

Cullen (1961) proposed the reading of the space/environment at street level, understood as a place that provokes emotional reactions and physical sensations, both influential aspects in the human being's perception of the space in which one transits, contemplates, occupies and uses. Cullen's analysis is both

dynamic (1) and static (2, 3). Dynamic because the observer (1) optically identifies the movement of people in space using the serial view technique. Static as a result from identifying concrete things present in the space through (2) their location and (3) their architectural content.

Later, Alexander et. al (1977) established a static language, with defined designs, which systematized dozens of precise architectural and urban patterns. In addition, many of these elements were arranged in associative clusters, in which patterns work together to define more complex functions and uses of urban space.

Alternatively, Lynch (1999) started from a notion about the collective image of the city to develop objective processes to deal with subjective issues. Five fundamental elements (paths, edges, districts, nodes and landmarks) were introduced to draw cognitive maps (drawings made by users of urban space). It is a classical method widely used in urban morphology studies to bring the designer closer to the peculiar characteristics of the place where the intervention will take place, and for participatory planning.

Methodology

This work relied on Lynch (1999), Cullen (1961) and Alexander et. al. (1977) to arrange static and dynamic physical attributes found in a variety of urban spaces along a scale of city environment perception, taking Good Living as a guiding parameter for the well-being in cities. Why these authors? Gordon Cullen brings concepts grouped into large chapters, full of images and sketches, but he does not intend to systematize and order them in any way. Lynch and Alexander are perhaps the ones who most aim to constitute themselves as methods, and in this sense, they are the ones most easily absorbed in practical activities (Monteiro; Bernardini, 2018). These three references combined offer an overview of possibilities to intentionally input or enhance Good Living in public urban spaces.

From this joint analysis, a list of elements was made for the composition of a mental map with the objective of sharpening the senses and the systematic perception of patterns, in order to expand the urban morphology repertoire of the urban designer on a range of space forms less and more compatible with Good Living. In this process, it was questioned which groups of elements would be characteristic of what sort of places and which clusters could be formed to interpret the absence or presence of Good Living in the different scales of analysis, from the building to the region.

In order to compose a mental map compatible with Good Living, the elements were first extracted from the reading of the three selected authors chosen for the theoretical foundation of urban morphology. This study filtered the attributes and observed the existing relationships between the components of the categories of analysis brought by each author, in order to obtain a synthesis between the scale of observation of the urban environment and the guiding concept of Good Living. This qualitative approach stands on understanding that the correct interpretation of existing urban situations will be possible from the morphological dimensions that not only define urban taxonomies, but also enable the analysis of the spatial elements that make up the

city. By adding this analysis to the ethnographic aspect, which animates the space, this research feeds Lynch's methodology by adding tactile means from the other authors. It helps to fill the persistent gap in operationalizing Cullen's findings too. It attains to substantiate designer space reading, assuming this professional as an observer who holds a vision of the existing city space as a consequence of urban life due to the people who circulate through the spaces, use it and imprint transformations on it over time.

Results and Discussions

Elements related to situations indicative of Good Living identified in Lynch (1999), Cullen (1961) and Alexander et. al. (1977) are shown in Table 1.

Table 1. Authors and categories used to assemble the matrix framework of urban morphological references from the perspective of the Good Living.

Lynch Structuring Elements of Spatial Legibility	Cullen Static and Dynamic Landscape Qualities	Alexander Positive Patterns of Spatial Configuration
edges (2)	occupied territory (1)	mosaic of subcultures (8)
districts (3)	possession in movement (2)	identifiable neighbourhood (14)
landmarks (5)	viscosity (4)	web of public transportation (16)
	enclaves (5)	network of learning (18)
	enclosures (6)	access to water (25)
	focal point (7)	life cycle (26)
	multiple enclosures (11)	work community (41)
	defining space (14)	university as a marketplace (43)
	pinpointing (19)	necklace of community projects (45)
	truncation (20)	accessible green (60)
	netting (22)	common land (67)
	grandiose vista (24)	public outdoor room (69)
	division of space (25)	sleeping in public (94)
	screened vista (26)	intimacy gradient (127)
	handsome gesture (27)	zen view (134)
	infinity (39)	
	mystery (40)	
	continuity (44)	
	hazards (45)	

Table 1 conveniently lists the elements sequentially, as they appear in the consulted sources, so they can be more easily found by designers and planners interested in accessing them. Establishing a clear spectrum

about what is less desirable, dispensable or important to avoid was only possible with the explanation by opposition established in the form of a matrix that accommodates the distance between elements that on one side are far from the precepts of Good Living, while its opposite side gathers the most convergent ones.

To build a matrix arrangement between the physical scales of the environment — building, street, block, district (neighbourhood scale), city and region — and the qualitative scale of well-being, the analysis reflected on the attributes and relationships between the elements presented by each author (Figure 1).

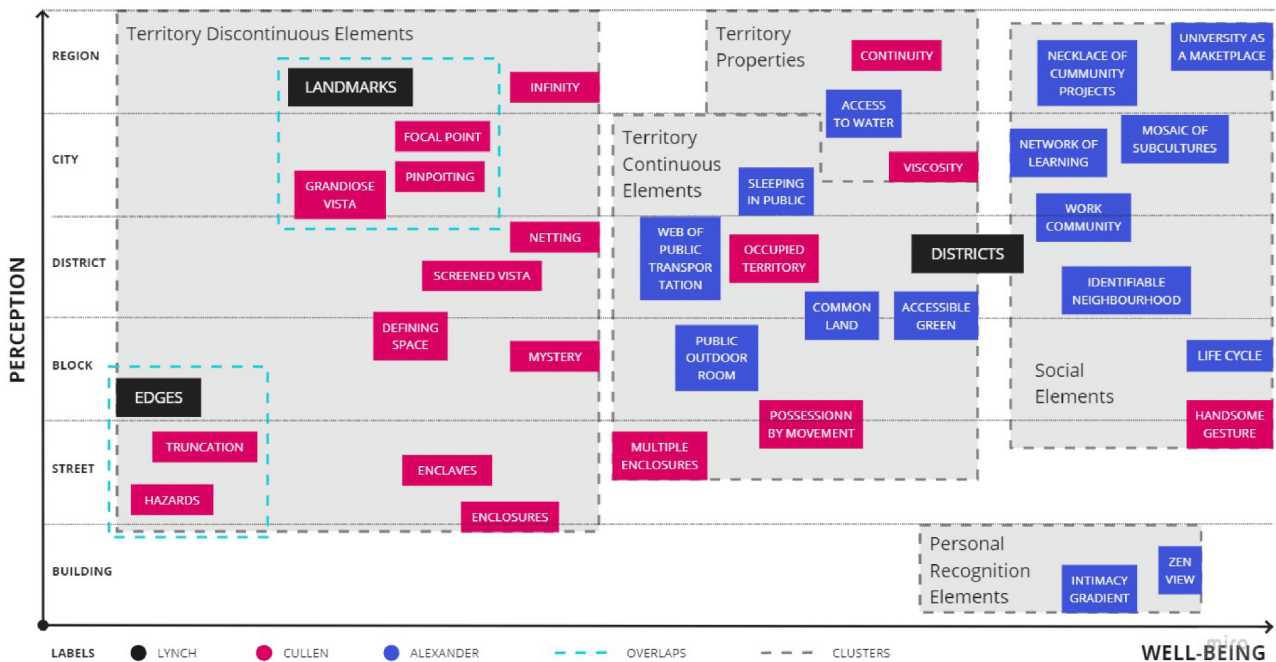


Figure 1. Morphological Matrix for Good Living.

There are overlaps and interdependencies between the clusters formed in the resulting matrix arrangement. Five clusters were identified: (1) discontinuous elements of the territory, (2) continuous elements of the territory, (3) properties of the territory, (4) elements of personal recognition and (5) elements of social relations. The clusters progressively move towards the state of well-being, starting from concrete spatial elements to elements that describe the collective's relations with the territory used.

Figures 1 and 2 demonstrate that as the picture progresses towards Well-Being, the elements are dispersed in different scalar levels of perception and possible interaction between the individual, the community and the urban space. The closer the individual is to a passive user, the more the element is positioned to the left of the Good Living spectrum, while the active citizen and community develop relationships further to the right of the spectrum, approaching the desired degree of fullness. In this sense, horizontally, the field of analysis is sensorial and subjective, while physical aspects are organized vertically. Therefore, it can be seen that, from the perspective of Good Living, the scales referring to the block and the district are, in general, preponderant over the other scales of analysis. However, the smaller the possibility of active observation of the urban space, the smaller the range of possibilities for interaction are. The integrative cosmivision that

gives meaning to Good Living is reflected in the scales of urban forms, contemplating from the most individual to the most collective level, surpassing even the scale of the region. The notion of Good Living is compatible with that of sustainability, which understands that if there is social inequality, environmental injustice and depletion of the natural environment, the forms of the urban environment will not promote an acceptable standard of well-being, as there is no Unit (Mamani, 2010). The more equitable the possibilities for life filled with well-being, the wider the scalar spectrum is, thus urban experience can be fuller, richer in diversity.

Conclusions

This composition of morphological references is meant to aid forming a repertoire for the exercise of designing urban public spaces oriented towards good living. The premise is that this urban design can encourage more solidary, inclusive, healthy and sustainable social relations, being a relevant tool for the sustainable urban planning process.

This work proposed a dialogue between the concept of Good Living and the methods of classical authors in the field of urban morphology studies, organized in a taxonomical matrix of the physical and psychic elements that constitute the city. The understanding of urban forms as components of caring for nature and responsible use of natural resources reinforces the inseparability between environmental sustainability and sociocultural and political aspects of the populations of each city. Forms and places can and should be designed to wholefully improve the well-being of its inhabitants, considering their unity to all that constitute public urban spaces.

The systematization of urban morphological elements proposed provides (1) a tool for reading, interpreting and (2) a bank of propositional forms, in order to collaborate in the formation of a technical repertoire for participatory planning and urban design. This type of structure may improve the Good Living proposal in a healthy, sustainable, happy, solidary and inclusive city. The hypothesis above can be tested and replicated to other various authors whose elements and parameters are not clearly explained in their works, e.g., *'eyes on the street'* by Jane Jacobs.

Another move forward would be to upload an open-access world-wide-web collaborative network to feed continuously a database collection of examples (photographs, descriptions, documents, drawings, paintings and so on), in cities of all continents, of places that fit in the clusters and categories proposed by this research to study and systematize spatial elements and parameters in urban landscapes that sustainably provide Good Living in public spaces. This wiki-type could be an answer to Monteiro & Bernardini's (2018, p. 9) call for a global collaboration to study and systematize *'a large vocabulary of spatial elements and parameters of the urban landscape'*. Hopefully, this convocation will induce students and professionals to improve this preliminary element repertoire of urban landscapes and morphologies related to Good Living.

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