

The Landscape Quality of Community Spaces in Collective Housing: Case of the City Of Béjaia. Developments, Changes and Evaluation

¹Mameri Kenza, ² Djemili Abderezak

¹Doctoral student, research member of the laboratory (LAUTr)

² Professor, Teacher-Researcher, Team leader "Habitat & Environment" Laboratory Institute of Architecture, F.Abbas-Sétif University 1

Email¹: mameri.k@yahoo.com

Abstract

Today's city is the product of multiple mutations through time and space. Its current state results from urban sprawl and an accelerated spread of residential developments totally disconnected from the surrounding urban space. The housing policy in Algeria, mainly oriented towards the massive production of housing, aims at filling the quantitative deficit to face the emergency situation created by the housing crisis. The reflection on the quality of common spaces is considered to result after the implantation of residential buildings, which represents a failure to take these spaces into consideration, and which considerably alters the landscape quality of the built environment.

Collective housing estates are losing the quality of their living environment day after day, as a result of a process of non-attachment to places where people live together and of a very reduced appreciation of the landscape, creating an image that still needs to be identified and improved. In fact, we wonder about the landscape quality of common spaces, how to evaluate them and how to materialize them.

In this context, Bejaia, characterized by a varied urban fabric and residential complexes of several eras, has seen housing flourish in diverse configurations of community spaces, ranging from the old historic center to the new district of Sidi Ali Lebher.

The objective of this communication is to study the landscape quality of these community spaces and to identify the specific characteristics that flow from them along a chronological axis.

The approach is defined in the evaluation of a set of criteria by referring in particular to the historical evolution of these areas for a better understanding of dysfunctions and to arrive at a decision support strategy that can be used by the various actors of the sustainable city.

Keywords: Community Spaces; Landscape Quality; History; Evaluation; Collective Housing.

1. Introduction

Today, the view and perception of "the city" and the characteristics of urban life and living environment have radically changed. The city has not stopped changing; it has constantly undergone and endured multiple transformations and modifications through time and space.

Repercussion on its multiple domains, this mutation notably affects its distinctive landscape.

Following the example of the city of Bejaia (Candle), a completely metamorphosed and transfigured landscape before the city was built by and for its inhabitants, responds to their needs and obeys a certain dialectic and genius to do and a specific way of being there.

Nowadays, "the city" is embracing a new itinerary and adopting new concepts such as globalization, densification, concreting, etc. This acts in one way or another on the urban landscape but also architectural, making the objective of "sustainable" difficult to achieve and to achieve operationally in the face of these constraints.

Today's city, characterized by natural or artificial growth due to migratory flows, causes an expansion of urban space and a dispersion of centralities, this is what manifests itself under the phenomenon of urban sprawl, which has created a new need in terms of infrastructures, activities, and especially a persistent need in terms of accessibility to housing, which represents a major challenge.

For this purpose, urban fragmentation is expressed much more as a more accentuated phenomenon of urban sprawl, which leads to considerable losses of free space, and which generates particular impacts on the urban landscape and more precisely on the dispersion of collective type residential complexes, giving birth to dormitory cities, monotonous and walrus residential districts. The state which calls into question the landscape qualification of residential buildings and the redefinition of the landscape quality of the shared common space.

2. Landscape, habitat and common space

In what follows we speak of landscape as being "simply and more precisely all that we see", its relationship with the living environment in terms of living and not shelter or housing.

Thus, the collective type of housing affects in particular this dimension of living together in a community and sharing spaces between others within a framework of appreciation of the common landscape.

“In an apprehendable landscape, sometimes subordinate places are formed, and thus the capacity of a landscape to accommodate elements that are human works, can vary in different ways”¹. These works include the actions and all human activities, hence the composition of the shared place.

If considering the question of the quality of the habitat and the living environment as fundamental, not only for the landscape, but also for the act of architecture, is a shared position and of general interest.

It is a coexistence of individuals with diverse and varied personalities, origins, cultures, social classes... in places accessible to all within a landscape appreciation framework.

¹ Schulz in « GENIUS LOCI- Paysage- Ambiance, Architecture ». Ed : Pierre Margada 1981.

3. Landscape quality assessment Method

A good landscape-quality assessment Method is one that achieves a balance between reliability and sensitivity.

Given this balance, the next consideration is validity. A method must not only provide reliable and sensitive measures, but the measures must reflect changes in the property that the system purports to measure. This criterion has high intuitive appeal-a landscape-quality assessment.²

It is therefore essential, if this approach to landscape evaluation is to be validated and developed further, to attempt to establish the theoretical basis of such techniques by demonstrating how the physical facets of landscape with which they are primarily concerned relate to visual perception which determine landscape quality³.

We argue that the insights emerging from this initiative, including the concept of the “community landscape” that we developed from it, could productively inform planning and land management in urban neighborhoods.

The importance of urban landscapes is destined to be accentuated in the current transition phase toward the society of culture and knowledge, in which the role of the city is always less entrusted with the classic functions of the tertiary and quaternary sectors, and ever more with symbolic relationships, identifying images, and “intangible” dynamics⁴.

² TERRY C. DANIEL and JOANNE VINING. *method should measure landscape quality* *Methodological Issues in the Assessment of Landscape Quality* . page 40.

³ Steve Shuttleworth (1979). *The evaluation of landscape quality*, *Landscape Research*, DOI: 10.1080/01426397908705925 /<http://dx.doi.org/10.1080/01426397908705925/>.

⁴ Massimo Sargolini. *Urban Landscapes Environmental Networks and Quality of Life*. ISBN 978-88-470-2880-7. DOI 10.1007/978-88-470-2880-7.

4. Problematic

At the global level, the search for a better living environment is ongoing and is accompanied by a reflection based on an architecture-landscape duality. Conversely at the national level, in already highly urbanized cities, the observation is that of the extent of the transformations that affect urban living spaces in the context of random response to the housing crisis following a housing policy that simply responds to an emergency situation, the thing that rots the landscape quality of common spaces. So. What landscape quality do architects in Algeria ensure for community spaces today?

Collective housing estates are gradually losing their dynamic image, the product of a process of non-attachment to places where people live together and of a very reduced appreciation of the landscape, resulting in an image that still needs to be identified and improved.

This image challenges us to identify it and the courses of action to be taken to improve this situation. What is a quality landscape? How to define the quality of a landscape?

Does it vary through time? How to evaluate it, and highlight it (materialize)?

5. Methodology and Approach

In order to evaluate and approach the landscape quality of community spaces in collective housing estates, a selection of a set of parameters and criteria seems to be essential in order to carry out this evaluation objectively.

First, it is a question of establishing a table of criteria and indicators for evaluating the quality of common spaces by selecting those necessary and reflective of the quality of the latter on the one hand, also, to select other criteria of the visual interest of the landscape and the value attributed to the latter on the basis of the detailed routing grid of the visual analysis in order to build a panel of complementary criteria on the other hand. The interest is then to combine all the criteria and indicators in a summary table associated with a scale rating (cardinal value) that varies from (1) to (3) qualifying: low-medium-strong and associated observations.

Secondly, it is a question of establishing a chronological axis of evolution of the city of Béjaia and selecting representative samples of collective housing for each period of evolution.

These samples will be subjected to the criteria and indicators of the general framework in order to deduce, at the end of each period, elements of understanding and response (diagram 1).

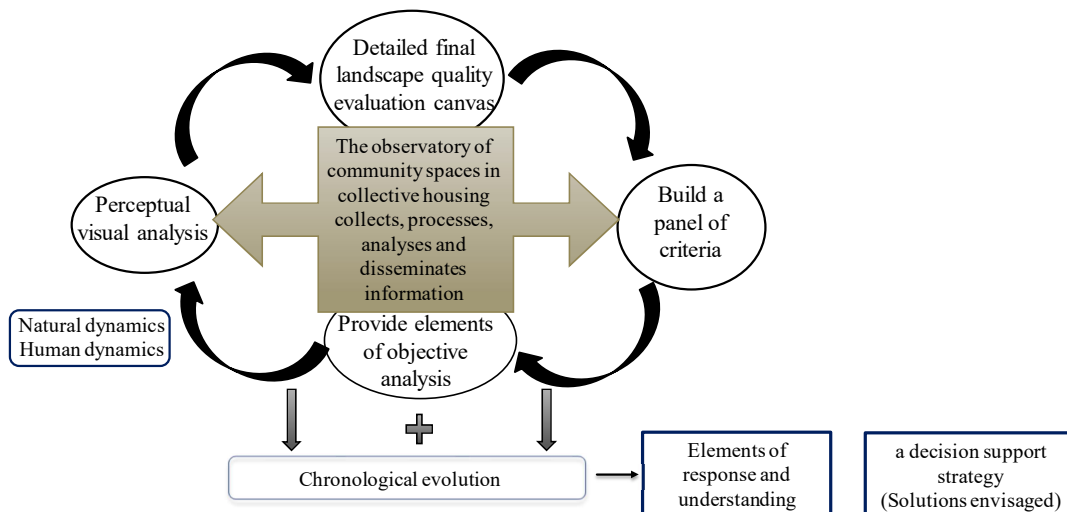


Figure 1. Evaluation Process

We draw up a list of selected synthetic criteria to evaluate the quality of community space:

Summary criteria	Detailed criteria	Indicators for evaluating the landscape quality of common spaces
Management	Maintenance	Designation of waste spaces Integration of green spaces/trees
	Management	Management Designation of areas reserved for maintenance; pavement pavements, lighting, furniture
Attractiveness	Leisure/animation	Development of recreation areas
	Adaptability to uses (flexibility)	
	Attractiveness	
	Service offer	Development of multiservice areas
Safety and security	Safety / security	Treatment / surveillance / limits / travel safety
Mobility	Travel	Pedestrian routes

	Space sharing	
	Parking	Supply of parking spaces
Accessibility	Accessibility	Links to the surrounding fabric
		Existence of specific facilities for PRM
	Signage legibility	Barrier-Free Adaptive Pathway
Ambiance	Aesthetics	Colours and texture
	Ambiences	Natural and artificial lighting / noise control
	embellishment	
	vegetation	Vegetation and blue landscaping
Composition	Visibility	Limitations/ benchmarks
	Consistency	
	Spatial continuity	Connexivity between subspaces
Development	Development	
	Density	
	Furniture	Layout and choice
Environment	Noise, air, water	
	climate	Protective layout
	Sanitation water	Water collection and treatment

Table 1. Synthetic criteria for evaluating the quality of common areas

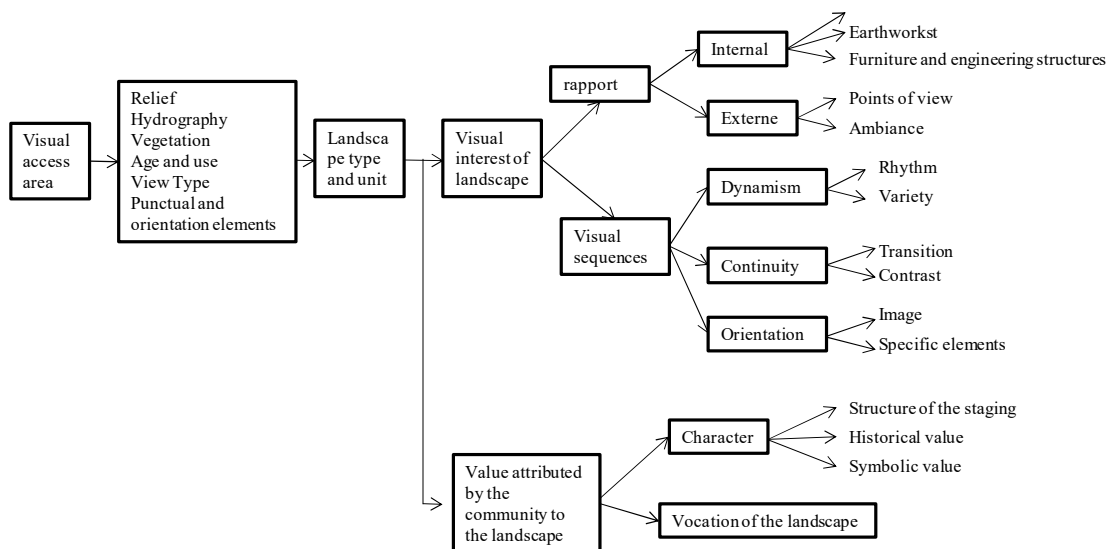


Figure 2. Detailed path of a visual analysis

Table 2. Summary analysis grid of the commented routes

Steps	Criteria	Specific criteria	Indicators	Detailed indicators	Rating scale
Delimitation of the visual study space	Visual access area	Relief			
		Vegetation			
		Age and use of space			
		View Type			
Landscape Assessment Inventory of visual characteristics	Visual Accessibility	Accessibility	Links to the surrounding tissue		
			Existence of specific facilities for PRM		
		Signage legibility	Barrier-Free Adaptive Pathway		
	Visual interest	Harmony	Internal	Continuity	
				Alignment	
				Importance	
				Furniture	
				Concordance (colours, texture, shape)	
				Integration into the surrounding landscape	
	External	Points of view			
	vibrancy	Rhythm	variety		

		Visual sequences	continuance	Transition	Contrast	
			Orientation	Image	Specific elements	
		Attractiveness	Leisure/animation	Development of recreation areas		
			Adaptability to uses (flexibility)			
			Attractiveness			
			Offer of services	Development of multi-service areas		
		Character	staging			
	Historical value					
	Symbolic value					
	Vocation of the landscape	Functions and activities				
	Ambiance	Aesthetics	Colours and texture			
		Atmospheres	Natural and artificial lighting / noise control			
		embellishment				
		vegetation	Vegetation and blue arrangements			
	Composition	Visibility	Limits/ markers			
		Consistency				
		Spatial continuity	Connexivité entre les sous espaces			
	Development	Development				
		Density				
		furniture	Layout and choice			
Environment	Noise, air, water					
	Value assigned					

			climate	Protective layout	
			Sanitation	Water collection and treatment	
		Management	Entretien	Designation of waste spaces	
				Integration of green spaces/trees	
			Management	Designation of spaces reserved for maintenance; pavement pavements, lighting, furniture	
		Safety and security	Safety / Security	Treatment/monitoring/limits/ travel safety	
		Mobility	Movements	Pedestrian routes	
			Space sharing		
			Parking	Supply of parking spaces	

6. Results and discussions

The remarkable site of Bejaia is intended as a city site characterized by the proximity of the sea, mountains at the mouth of a long river, proximity to a fertile plain and an excellent anchorage, which makes it "the pearl of Africa".

Bejaia, characterized by a varied urban fabric and residential complexes of several eras has seen the development of housing in diversified dispositions of community spaces.

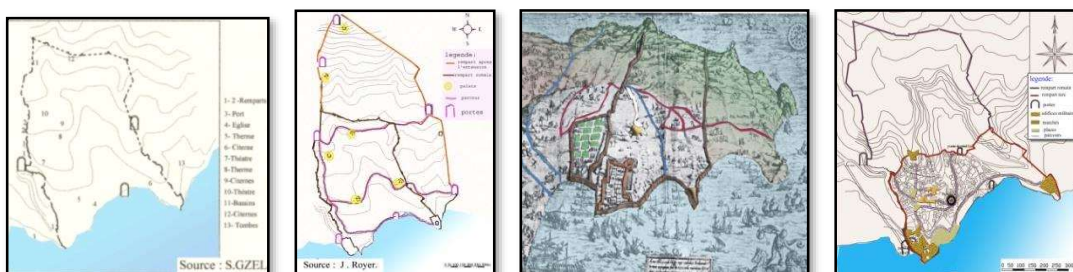
The evolution of the city of Bejaia will allow us to better grasp it in its entirety from a dynamic perspective, later we will approach a more detailed study revealing the fixed points of previous transformations.

The process of formation and transformation of the city of Béjaia lived three great moments:

Before, during and after colonization.

I-Pre-1830 we find in Béjaia: the prehistoric period, Phoenician 7th-1st century BC, the Roman occupation (saldae) 33 BC, the Hammadite period (Naciria) 1067/1152, the Spanish period (Buggia) 1510-1555, and the Turkish regency (Medina) 1555-1833.

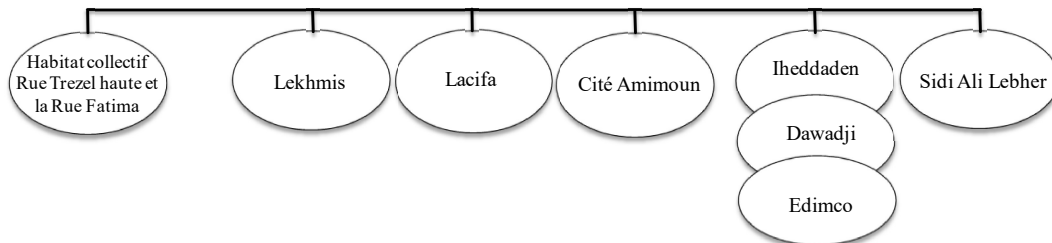
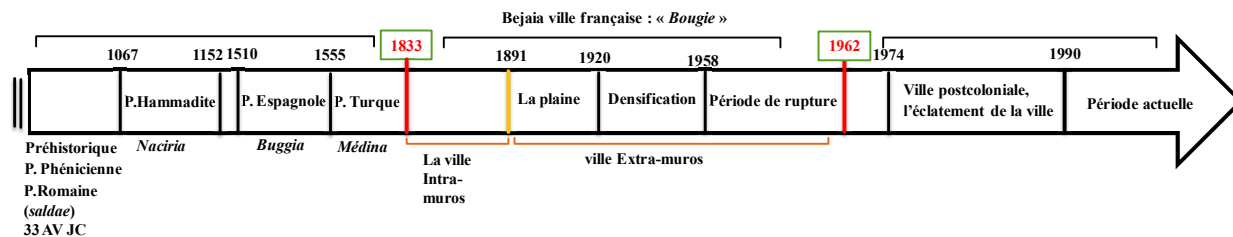
The city's choice of location is based on the potential of the natural environment's structure sheltered from such violent winds, protected and ventilated site, or relief defines the installation and delimits the city into an internalized space (see maps below).



Bejaia (P. Romaine) Bejaia (P. Hammadite) Bejaia (P. Espagnole) Bejaia (P. Turque)

Figure 3. Bejaia in different periods

Chronological evolution axis of the city of Béjaia :



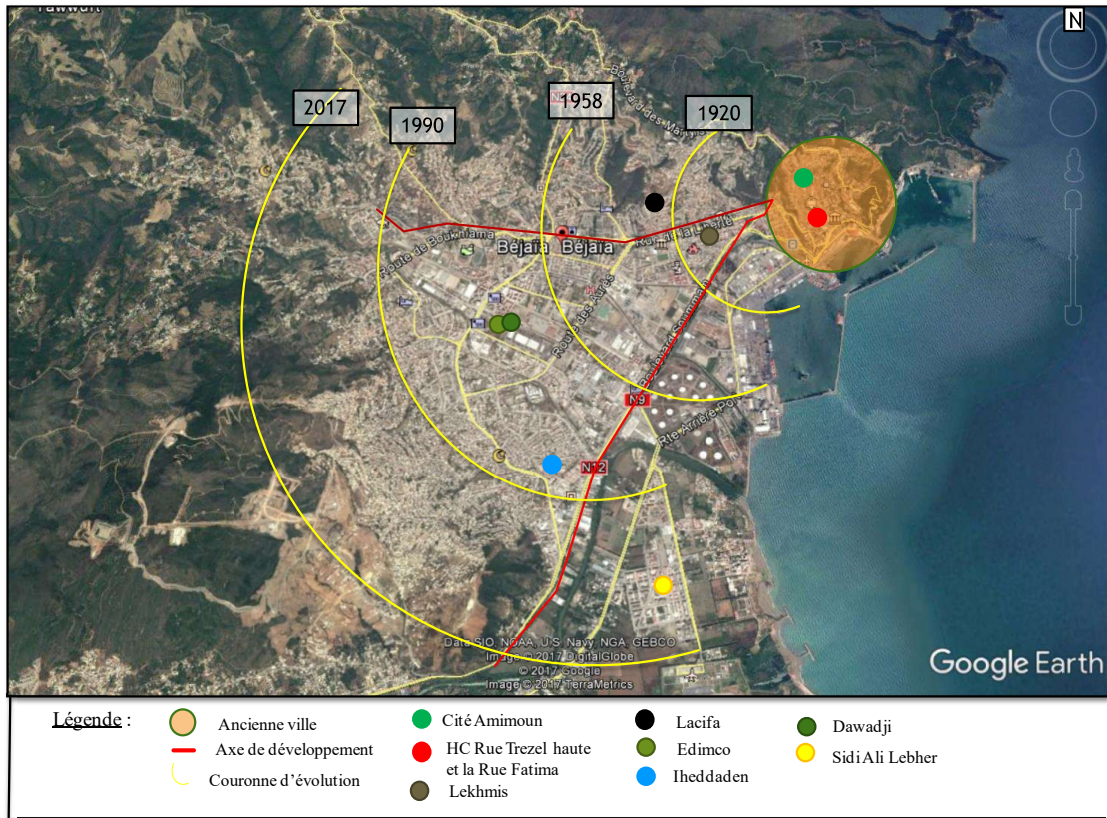


Figure4. Map of the evolution crowns of the city of Béjaia

II- Bejaia French city "Bougie" 1833 -1962 :

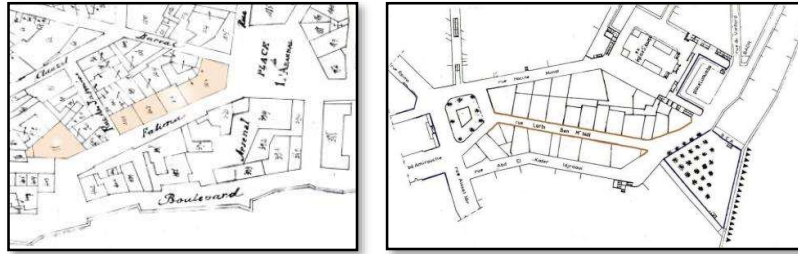
II-1-The city Intra-muros :

The appropriation and reinterpretation of place 1833-1871 :

There was mainly the widening of the street TREZEL and FATIMA, as well as a division of the collective residential districts thanks to places such as the place PHILIPPE, ARSENAL, LUMUMBA served by sinuous ways, defining a hierarchy.



Figure 5 . Vue sur l'habitat collectif donnant sur la rue Trézel haute et la rue Fatima (La rue « escalier »)



Plan of the collective housing
Overlooking Fatima Street

Plan of the collective housing
Overlooking Trézel haute

Figure 6.Plan of collective housing

- The relief indicates the way in which shared spaces are set up and distributed,
- The vegetation and the presence of blue elements mark the beginning and/or the end of the shared route, often materialized by plots,
- Easy identification and orientation,
- The obsolescence of the elements (colors and textures) make it possible to show a weak point for the landscape that offers the spaces and the buildings associated with a lack of arrangement especially of protection and safety and maintenance,
- Use of the "pierced" concept is very dominant offering spectacular views,
- The street "staircase", community space par excellence weaves a link between the building and the urban (course), it allows the inhabitant to walk, discover, enter, go out, stop, arrive has its housing,
- The Alignment ensures the Continuity of spaces offering dynamic, rhythmic and varied visual sequences,
- Animation and dynamism strongly present attributing a value and a character to the space.

II-2- The Extra-Muros City:

The plain, a new pole of growth: Crossing the boundaries 1891-1920 :



Figure 7. View on a type of collective housing (Lekhmis)

The crossing of the boundaries was made by crossing Biziou Boulevard (now Amirouche Boulevard) and Freedom Boulevard, moving away from the two natural barriers (mountain and sea) influencing the trajectory of the establishment of Schulz residential complexes as follows: "the modalities of extension depends on the nature of the terrain, or rather the topographical conditions". There has been a loss of the notion of the street/staircase as a community space or the types of spaces are very varied (gardens, floor terraces, specific "sheep" space, parking spaces respecting a hierarchy (public - intermediate - private - intermediate - private) and a presence of vegetation with primary delimitation.

Densification of the city: 1920-1958

Collective housing in Lacifa:



Vue globale sur un habitat collectif a Lacifa

Vue percée sur la montagne

Vue sur la barre d'habitation

Vue sur l'escalier d'entrée

Vue sur la coursive

Figure8. View on a type of collective housing(LACIFA)

The passage from the island to the bar leaving large areas of partition exploited solely for parking, was the marker element of this era with a very narrow delimitation and fence. The return of the shared space "staircase" materializing a hierarchy, with sequential varieties of spaces due to the orientation of the bar have also been resumed with the emergence of a new type of community space "corridor" and a reduced presence of vegetated surfaces,

II-3- Breaking Period: 1958-1962

The city Ammimoun:



Figure 9. Plan of a type of collective housing (Amimoun)

- resumption of the corridor with appropriation of it
- development of a variety of delimited and fenced spaces
- distinction, distribution and management of community spaces
- varied range of functions and activities
- reworking of the "pierced" concept offering a double view (of the sea and Mount Gouraya)



Figure 10 . View on a type of collective housing (Amimoun)

III- Bejaia postcolonial city, the break-up of the city

Bejaia between 1974-1990 :

The latter was called upon to assume important industrial activities, and to drain a large rural population, but its development was not considered as a priority, and consequently causes a dysfunction and a delay of the city, in terms of landscape quality of the community spaces, due to the difficulty to satisfy the demand for housing.



Cité à Iheddaden

cité à Edimco

cité à Dawadji

Figure 11. View on a type of collective housing

- Absence of the concept of the street as a morphological element of social communication, of places as landmarks and absence of horizontal hierarchy.
- Emergence of a new vertical interaction by the esplanade which replaces the front staircase street

Period 1990 to the present:

Despite the natural potential of the site (proximity to the sea and mountains), the community spaces are reduced to simple parking spaces and residual spaces, reinforcing only the "artificial light atmosphere".

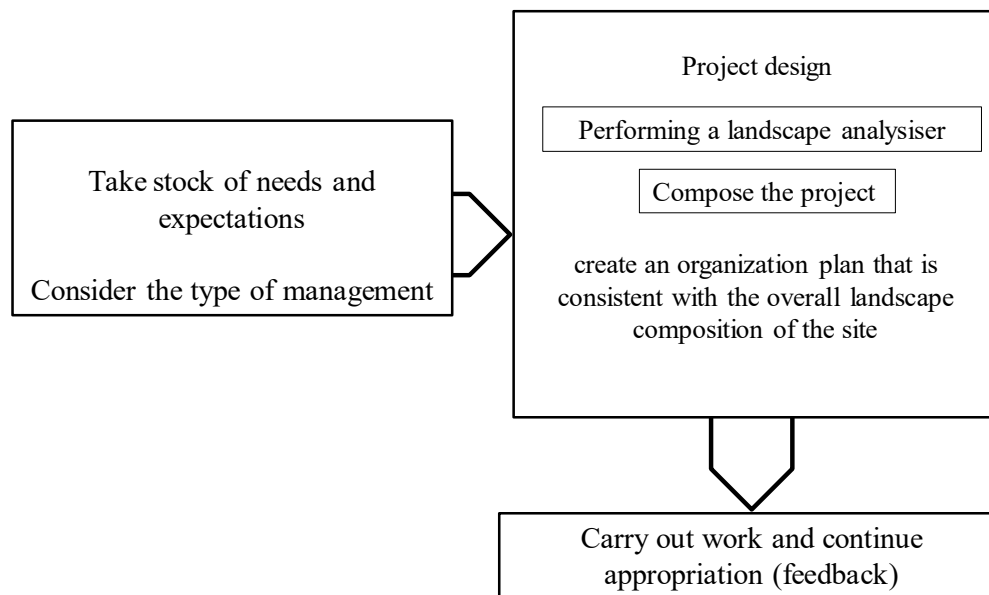
Elements of location and orientation non-existent creating this new Morse city in sidi Ali lebher



Figure 12. View on a type of collective housing

Housing replaces housing, and the inhabitant becomes a simple user of his space. This is combined with dysfunctions in the specific layout for PRM and problems in sanitation.

7. Solutions envisaged (Strategy and recommendations)



Boundaries and fences :

- Enhance visual relationships with the environment through visual breakthroughs or perspectives on elements,
- Take care of the landscaping in order to make the entrance a landscaped showcase ensuring good continuity and visibility, and create a landscaped setting from the entrance (trees, flowers...),

- Design the outer limits in such a way as to reduce the visual impact, and integrate them harmoniously with the surrounding landscape.

Management :

- Manage the separating limits of the sites by avoiding a systematic and repetitive partitioning, and implant the plant by using varied volumes or plant associations (live hedges, coppice, shrub masses...).

Organization :

- Organize the whole around the location elements,
- Particularly care for landscaping using textures and creating paths within community spaces,
- To prefer well delimited spaces in order to better see them and to appropriate them, for a better management,
- Avoid the concentration of residual spaces without function.

Maintenance :

- Integrate harmoniously into the site a plant palette that enhances the spaces and is maintained sustainably,
- To keep a global aspect of green vegetation in a concern of integration into the landscape,
- Choose a vegetable palette according to the climatic conditions of the city.

Travel :

- Structure locations coherently within shared spaces,
- Adapt indoor traffic to usage and make travel safe,
- Establish a traffic plan in order to organize and prioritize the main aisles,

- Create paths that follow gentle slopes that allow easy circulation of PRM and children, as well as runoff water management,
- Separate soft traffic from car traffic while maintaining mutual visibility for safety reasons.

Embellishment :

- Preference should be given to plant separations (e.g. tree hedges); small fencing elements may also be used to create boundaries such as fascines or borders,
- Carefully consider facilities Suitable for various functions and activities,
- Pay particular attention to the choice of colours and materials and the common spaces or the cladding of the façades overlooking these spaces.

Finally, it is also relevant to open up a field of vision by asking oneself; What is one's idea of the landscape quality of the "community spaces" of tomorrow?

As Edgar Morin says, "The gigantic planetary crisis is the crisis of humanity which does not manage to reach humanity". It is in fact this landscape quality of community spaces that will ensure the humanization of shared space.

Acknowledgment

I would like to express my sincere thanks to Prof.djemili abderezak for his helpful critics and technical coordination during the study on this research. This research did not receive any specific grant from funding agencies in the public, commercial, or non-for-profit sectors.

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