Public spaces, a challenge for urban renewal: case of Bardo Urban Park Project

Badr-Eddine Boumali¹,*, Rachid Tamine², Abdallah Lalmi³, Nedjwa Elafri³

¹ Mentouri University Constantine 1, Faculty of Geography and Territorial Planning, Research Laboratory on Territory Development, Algeria;
² Saleh Boubnider University Constantine 3, Faculty of Architecture and Urban Planning, Algeria;
³ Saleh Boubnider University Constantine 3, Faculty of Architecture and Urban Planning, AVMF Laboratory, Algeria.

*Correspondence: boumali_badreddine@hotmail.fr / badreddine.BOOMALI@umc.edu.dz

Keywords: urban renewal; public space; urban analysis approach; territorial attractivity; Heritage upgrading; citizen participation; urban reorganization

Abstract: The Algerian urban renewal policy, supported by the law on urban orientation, aims to rebuild the city on itself to exploit urban wastelands. From this perspective, open spaces, wastelands, and urban interstices become major planning issues; their requalification makes it possible to ensure the economic management of space and to improve the attractiveness of the city. The results of this article are based on a case study represented by the “Modernization Plan of the Metropolis of Constantine”. This new development strategy is primarily based on a program of activities centered on the rehabilitation and upgrading of central urban spaces, as well as the residential proximity of central districts, and the realization of international significant projects that would change the city’s image and bring it into the modern era. Ideally, urban public places should be designed to promote unity rather than division, conviviality and community involvement among cities are significant for urban development projects.

1. Introduction

Constantine is intended to become a Mediterranean metropolis within the framework of the National Spatial Planning Scheme; thus, it is supposed to offer to its inhabitants an environment and quality of life which could be described as commensurate with its metropolitan which contributes to its attractiveness.

Moreover, within the framework of the Master Plan for the Development of the Metropolitan Area, the action carried out in Constantine consisted of a vast operation of urban renewal and improvement, notably through the development of major sustainable urban projects. The latter has made it possible to rediscover a city where the emblematic landscapes are revealed by these new urban ambiances. These include the “Salah bey” viaduct, the tramway, the cable car, and the Bardo urban park. All these urban projects are strong relations to the construction of Constantine metropolis as an ecological and sustainable city.

After decades of rigid urban planning, characterizing urban planning in Algeria, a new era is beginning; the urban project, which has emerged in many countries, is also being introduced in Algeria, albeit slowly, but on very different scales.

New legislation was promulgated in 2006 within the framework of the strategy of territorial planning and sustainable development; it is the law n°06-06 of 20/02/2006 regulating the direction of the city, and it is applied within the framework of decentralization and proximity management. This law has several components: the urban component aims to limit urban expansion, correct urban imbalances, restructure, rehabilitate and modernize the urban fabric to make it useful. As regards the social component, it aims, among other
things, to combat the deterioration of life in the neighborhoods, and to promote and preserve cleanliness and public health. In terms of management, it aims to promote good governance by reiterating, among other things, public responsibility (Bachar, 2016).

Thus, the urban project is making a cautious entry into Algerian planning to become strategic, and the pioneering urban projects in Algeria are the Grand Project in Algiers and the modernization projects of the four metropolises, most notably the Modernization of Constantine Metropole (PMMC).

The Major Urban Project of Constantine, like most grand urban projects across the world, arose in response to the city's urban dilemma, which is a reaction to the demands of modernization and development. This large project benefited from significant governmental backing, which sought to commemorate its passing while simultaneously developing the city. It had a vision that may be classified worldwide.

With this in mind, we have identified a challenge that will be presented later, aiming at basing the design of urban development projects on the identification and 'activation of the urban potential' of the created areas. This difficulty consists in 'activating the resources' provided by the urban environment, which appears to correspond to the fundamental goal of sustainable development. As we shall attempt to demonstrate, this issue is excellently suited to the design of sustainable urban regeneration schemes. Furthermore, it leads to the incorporation of development initiatives into territorial urban renewal activities.

2. The urban project as an operating mode for territorial renewal

The concept of the project has been used in the discourses and practices of urban policy actors since the 1970s (Ingallina and Dupuy, 2002). This paradigm was deployed in opposition to functionalist or regulatory urbanism. The urban project transforms the city as a lever for local public action, whether in the way players establish the problems of urban policies, the nature of the aims outlined within, or the ways of executing these policies (Pinson and Vion, 2000).

For more than three decades, the development of the urban project as an operational mode for constructing the city has represented a paradigm shift in urban public activity. While the urban project is a tool for governance and stakeholder mobilization around the strategic goals of urban renewal and improving the population's living environment, the shift in the urban project's focus is not a new phenomenon. However, due to the uncertainties and restrictions that weigh heavily, the transition from plan planning to project planning is rarely a simple process (political support, strategies, and logic of actors, urban and financial uncertainties, social acceptance, etc.) (Kheireddine and Zouiten, 2021).

The urban project has been perceived by both scholars and practitioners as the center of study on the city and urban growth and revitalization. We are referring to works that focus on the normative approach (Masboungi, n.d.; Panerai, 1999); analytical and genealogical (Haumont, 1993; Ingallina and Dupuy, 2002; Toussaint and Zimmermann, 2001), sociological (Martouzet, 2018) actionist (Pinson, 2004, 2009) or outright critical postures of the project ideology (Genestier, 1996, 2001).

The urban project has a polysemic definition, but the one proposed by G. Pinson (2009): appears to us to be the most revealing: it is an approach that uses the urban project as a tool for mobilizing players through a process of resource construction and valuation. It is a method that places the actor at the center of the implementation process. It is a concept that encompasses the many scales of the urban project (district, city, or metropolis).

Many actors do not appear to be interested in pursuing an urban project strategy. As a result, a project may arise gradually from a reflection, a scenario, or a setting. It can also be difficult to formalize when it does not appear to be necessary (Courcier, 2003). There have also been several examples of urban projects that were never finished or had issues during execution owing to miscommunication among the participants or financial risks.

3. Material and methods
A case study methodology is used in order to have findings in the present study. It is recognized as one of the most widely used research methodologies for researchers taking a qualitative approach (Yin, 1994). By using case studies, researchers can focus on a particular phenomenon and uncover key elements or knowledge (Saunders et al., 2009). Which emerged in the improvement process of the fundamental research strategy. In exploratory and explanatory research, case study research is commonly used. It is considered a useful technique because it allows the researcher to fully appreciate the context of the research and the activity that takes place inside of it, for example, it may be the ideal approach if we want to understand why managers make decisions rather than an assessment of what decisions are made, who makes them, what decisions are made, how frequently they are made, and their perceived relevance (Wahlström et al., 2019).

The case study methodology is a qualitative research method (Creswell and Clark, 2017) adapted to understand the “how” of the unfolding of a phenomenon - such as the implementation processes of a major urban project in the context of urban renewal - in its natural context (Yin, 1994). The analysis of the case study makes it possible to highlight common and divergent features and to underline the essence of the phenomenon (Mencuccini et al., 2005). A recent major urban project was chosen: the Bardo Park development project. This project meets the three criteria of the definition of Pinson, 2009, given in the introduction: they are indeed operations of regeneration and urban renewal (making the city on itself) because they provide for the transformation of public spaces, buildings, and uses; they are located in the heart of the city of Constantine; they aim in particular to provide the city with prestigious facilities - such as the theater, the gate of the Bardo - with an objective of metropolitan influence.

This research studies the relationship between governance processes through project management processes (our independent research variable) and the influence of stakeholders on the project our dependent variable (Creswell et al., 2003). Based on project management theories (PMI, 2017), we group the processes on the broad orientations of the project and the objectives of positioning in the environment, and those of activity that relate to the operational scale of the project as well as the participatory processes to identify the organizational structure of the stakeholders and the mechanisms through which they interact. The case study is based on a qualitative analysis of the following information:

This research presents a case study that focuses on the management of a participatory urban project as a public space, studying the case of the Bardo urban park, in Constantine. Case studies are used extensively because they can offer insights that could not be achieved with other approaches and are considered a useful tool for the preliminary or exploratory phase of a research project.

4. Study area

The city of Constantine occupies a central geographical position in the region (Figure 1.) This is a process that requires both continuity and rupture. Constantine straddles two major natural areas: the mountainous Tell, to the north and the High Plains to the south. This favorable geographical position has enabled it to become a crossroads on a regional scale, to capture the various flows resulting from a spatial organizational device, the center of a circle whose radius linking it with Annaba, Skikda, Jijel, Sétif, Batna, and Guelma, vary between 100 and 150 km. Situated at the intersection of the 5 main communication axes, the central pole of the regional socio-economic dynamics, Constantine is almost unique in its genre. The city, the antique one, is built on the site of the oppidum. It is isolated from the rest of its physical environment because it is limited to the north and east by the Rhumel and its gorges and to the west by a large escarpment.
Bardo Park is situated in the center of the city of Constantine, 640 m above sea level, which benefits from a rather contrasting Mediterranean climate characterized by average temperatures ranging from 0°C in winter and 30°C in summer. With a surface area of approximately 65 hectares, the site is situated on a sunken level, crossed by the Rhumel River (Figure 1).

Identified in the urban development master plan, the Bardo urban park enjoys a double central: at the heart of Constantine’s urban fabric and the ecological network of the metropolitan region.

Bardo urban park is a project included in a vast urban renewal perimeter, which is itself part of the overall development and the metropolization policy of the city of Constantine.
Of the city of Constantine. The reduction of the ecological footprint of the Bardo urban park is the priority of the approach.

The Bardo site has been chosen to become a new pole of attraction for urban life. Its renewal would establish a new urban continuity extending the center to the south of Constantine. This center would be the first public act in the creation of a mixed urban area of about ten (10) hectares. The architectural image of the new business center is essential, given the expected effect of influence, following the example of large facilities such as the Guggenheim Museum in Bilbao, which have become attractive and renowned cultural centers of reference for activities, events, and synergy between different urban components (Figure 2.).

Figure 3. The location of Bardo Park refers to key urban components. Source: base map - Google Maps (2021)

The local authorities have opted for renewal to provide the city with a business center that will have a certain economic impact in place of the current Bardo, located on the left set of the Rhumel. This site, natural heritage, presents many attractions, especially in terms of landscaping, whose potential must be maximized its potential. Economic changes are shaking up established urban identities and certainties; renewing them implies re-questioning the foundations and poses challenges to decision-makers today, both sociological in terms of the population, and political about the methods of managing this type of issue (Figure 3).

Bardo area has a key role, especially for its central urban layout. Bardo is an area with a hinge function located between the historical and the modern side of the city, with a spatial mediation role between the urban parts.
Due to its extensive conformation, it is located near all the main districts of the city. For this reason, the naturalist area is the green heart of the city, becoming the "Urban Park" of Constantine (Figure 4).

![Figure 4](image.png)

**Figure 4.** A panoramic and landscaped view offered by Bardo urban park

Bardo, whose name derives from the Spanish Prado, which means garden, is located on the edge of the ancient city walls but was its immediate suburb before becoming its extension. An extremely accessible space, it was occupied as soon as the city walls were destroyed and have only recently been liberated, allowing this extraordinary panorama of the conjunction between the city, the Rhumel, and its emblematic bridge, the Bridge of Sidi Rached, to finally reappear.

Bardo is one of the large shanty towns of Constantine that the urban actors of the city are planning to develop and transform in a fundamental and lasting way. Given its location in the Centre of Constantine, this central space is part of the modernization plan of Constantine.

Geographically, the Bardo site is in the lower city. To comprehend the delay in urbanization, it is vital to consider the historical factors that shaped the city's construction. Under the French colony, the European quarters were at the top and the Arab quarters were at the bottom. This construction resulted in a type of neglect, which explains why the exploitation of these Arab neighborhoods was delayed, leaving them as an "oil stain."

With the advent of shanty communities and spontaneous settlements, Arab neighborhoods have grown throughout time. This poverty belt will eventually harm the city's physiognomy.

4. Results and discussion

For some years, the rhetoric on the need to 'remake the city' has been on the agenda of operations to enhance urban areas, but it is quite unusual that we ask ourselves what the words' requalification' or 'rehabilitation' signifies, which still influences municipal policies today. The activity through which a poor neighborhood or a degraded city regains its dynamism and capacity to fully play its functions as a fulfilled urban environment is
referred to as requalification. These roles may have been lost, like in the case of a historic town or a devitalized ancient area, and we aim to restore them, or they may have never been and we seek to create them in this instance.

Figure 5. projected urban functions for the development of Bardo urban park. Source: (Direction of the Environment of Constantine Province, n.d.) .

Figure 5 above shows the projection of the development of the urban park of Bardo by delimiting the zoning by activity and by urban function while adapting to the morphology of the site and the neighboring and complementary urban functions. The development of the park of Bardo also plays a crucial role in the development of the historical site saved and classified by UNESCO as "the medina of Constantine".

The different areas and activities in the urban park play a role in culture. Parks promote culture in many ways, including art, music, performing arts, festivals, and history. The existence of cultural facilities and spaces in a park contributes to a sense of community.

As well as culture, parks offer a wide range of leisure activities, which also include the cultural activities mentioned above. Leisure and recreation offer the experience that results from freely chosen participation in social, physical, intellectual, spiritual, and creative activities that enhance the well-being of the individual and the community.

This large-scale common space, among other things, enabled remarkable accessibility and the valorization of the land through the establishment of a green park that would extend the current forest chain to the city center. This new attraction intends to draw tourists from all walks of life while also allowing city people to take responsibility for their extraordinary natural and historical heritage.

Renewal becomes a driving phenomenon that allows the implementation of elements to ensure modernization. It will be based on the attitude of attracting and focusing on metropolitan equipment and businesses. The expected result is the creation of strategic locations for attracting different economic operators, generating activities, and being very attractive to the population. This is to say how to reconvert by using one's potential and overcoming its constraints. This involves both elements of rupture and continuity, but the
whole must lead to a city full of harmony concordance, and multiple and lasting relations (Figure 6).

![SYNTHESIS MAP](image)

**Figure 6.** The location of Bardo Park refers to the important urban components. Source: base map - Google Maps (2021)

The relationship between the city and the urban area will be more connected than in the previous years in terms of environment and landscape, recreation, services, and image. The major asset of the project is its strategic location in the heart of the city of Constantine.

5.1 **Swot Analysis of site “Bardo urban park” project**

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very important geographical location</td>
<td>Most of the land is private</td>
</tr>
<tr>
<td>Advantageous position</td>
<td>The lack of leisure and recreation areas and parking lots</td>
</tr>
<tr>
<td>Existence of archaeological heritage (the Roman arcades)</td>
<td>The existing buildings are generally degraded and in a lamentable state</td>
</tr>
<tr>
<td></td>
<td>The domination of informal housing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The degradation of roads and sidewalks</td>
</tr>
<tr>
<td></td>
<td>The degradation of the historical heritage</td>
</tr>
</tbody>
</table>

**Table 1.** Swot Analysis of Bardo urban park project
Improving the landscape view by requalifying the urban fabric and demolishing the precarious housing
Development of green spaces, playgrounds, and recreational areas (public gardens)
Preserve and enhance the historical heritage
Urban requalification and restructuring of areas
Land with steep slopes: risk of landslides
The precariousness of the building presents a risk for the inhabitants
Insecurity of people
Visual and olfactory nuisance caused by the anarchic throwing of waste

Bardo site has an important and advantageous location, rich in heritage, and has a landscape of great beauty spotting the overlooking rivers of Rhumel, the bridge, Sidi Rached Mosque, and the Viaduct.

Despite the site threats, such as the risk of landslides due to the sloping terrain, the Bardo site presents several assets and great opportunities for development.

Amongst which we can mention is the opportunity to improve the urban fabric as well as to enhance the historical heritage (Table 1).

5.2 Relevance of the issue

The urban park project consists of developing the heart of the city into a cultural and leisure space. The latter is made up of three lots: "roads and various networks", "building and equipment" and "development of green spaces and plantations" which covers an area of 65 ha. The urban park of Bardo aims to improve the attractiveness of tourism at the local, national, and even international levels.

Successive external changes caused by the interdependence of projects that cross the project of the urban park of Bardo such as the project of recalibration of the river Rhumel, which divides the park into two parts causing a modification of the initial state of the ground.

The services of Constantine's hydraulic to realize a waterfall on the left bank of the wadi at the bottom of the gardens of olive trees. The realization of this waterfall encroaches on one of the thematic gardens programmed in the urban park of Bardo, thus hindering the interventions on this part of the project.

The works of the Salah Bey viaduct have caused very important deformations, which have affected the site, and its morphology, thus modifying the initial study carried out by the research department, subject to a contract with the group of companies in charge of the works of realization of the urban park, thus modifying the nature of the ground. It is also planned the realization of a drainage tunnel to ensure the safety of the work of the “Salah-bey” project and its stabilization in the right bank that will occupy a large area of the park project, and it will have an impact on the river Rhumel; the modification of the plans and the location of the theatre caused by the next works of the drainage tunnel.

The change of deliverables during the realization of the urban park project has caused an ambiguity in the project and a change in the urban function of the project, a flagrant overrun in the cost, time, and the risks that will arise and influence the final quality of the park; these transformations will cause terrible management and anarchy in the globality of the project, from this observation, various questions are posed on the best way to manage this project, is what is the root cause problem of this project which is integrated into the framework of urban renewal.

5.3 Ishikawa diagram for identifying the main cause of the project’s issue:

Ishikawa diagram presents a graphic illustration in the shape of a fish, with the head representing the problem or effect itself in this project, and its different edges each displaying a category of possible causes of a problem.

The main reason for using this diagram consists in the recognition of the different causes of Bardo project problems, as well as defining the significant ones, and making
decisions about the corrective measures to be implemented to stop the problem or malfunction.

![Ishikawa cause-effect diagram](image)

**Figure 7.** Ishikawa cause-effect diagram.

From the Ishikawa diagram (Figure 7), we try to identify the main categories of causes that can be implicated. From the analysis of the causes of project failure, we could discover their root causes we will try to divide them into categories to facilitate their reading through a tool of project management, which is the Ishikawa diagram, from the analysis, we can see that the major problem is the lack of coordination.

5.4 Stakeholders’ analysis

5.4.1 Stakeholders’ identification

The coordination between the different stakeholders must be considered from the beginning of the project to avoid dysfunctions that may affect the project.

Given the nature and influence of the stakeholders involved in this project, as highlighted by this study, we have clues to better understand the socio-spatial reality of the neighborhoods that are taking shape - that is, of the urban project, understood as the "product", resulting from the urban project, understood as the "process".

In this project, we have identified all stakeholders, regardless of their level of involvement, in several categories:

- The institutional stakeholders include both the local authorities that carry the projects - the Urban Community of Constantine - and the other public authorities, whose role is mainly financial or supervisory.
- Development project management companies: the non-profit company (all associations) which manages the “Bardo park” development project.
- The developers of each sub-project. They may be project owners represented by the environmental department.
- Construction managers (companies and subcontractors).
- Civil society, which includes interest groups and citizens. These are all the stakeholders likely to be included in the participatory processes. The category of "interest groups" includes civil society groups such as residents' associations, merchants' associations, and community groups, as well as more formal advisory bodies such as neighborhood councils in Constantine. Citizens include all individual citizens and users.
To better understand the degree of power and interest of each stakeholder in the project, the power-interest matrix explains the position of each party.

5.4.2 The power and interest of stakeholders

- **High Power/Low Interest**
  The ministries of environment, public works, tourism, and water resources are the most influential stakeholders who can affect the outcome of the project deliverables but whose interests are not the focus of this project. These stakeholders could pose a serious risk if not handled properly.

- **High power/high interest**
  The tourism department, the environment department, the design firms, the realization companies, and the public works department are the stakeholders who have a high interest in your activity and who can also significantly influence its success. The project team will need to develop good working relationships with these stakeholders to ensure effective support for the activity.

- **Low Power/Low Interest**

**Figure 8.** The power-interest matrix in the Bardo urban project

To better understand the context of the project that is integrated into the urban renewal framework, it is important to map the power and interest of stakeholders in the challenge to understand what might motivate their involvement.

The purpose of the power-interest matrix (Figure 8) in this project is to understand in terms of power: what is the stakeholder’s influence in developing a solution to the challenge, and in terms of interest, how important it is for this stakeholder to find a solution to the challenge of this project in the context of urban renewal.
Tourists or travelers may be stakeholders that are a low priority but may still require limited follow-up or at least be kept informed throughout the process as their status may change over time.

- **Low power/high interest**
  
The residents of the neighborhood, the residents of the city, and the associations are the stakeholders who have a high interest in your activity but low power to act. They require special attention if their interests are to be protected.
  
To better understand the interactions between the stakeholders, Figure 9 explains their influence and power.

**Figure 9. Stakeholder Map Matrix**

5. Conclusions

Spatial and functional renewal is of crucial importance for the continuity and sustainability of society and spaces, as confirmed by a group of researchers and urban planning professionals, I SCHEIN, who certifies that “Societies that do not renew their societies that do not renew their living environment are doomed to decadence (Françoise, 2006).

Throughout history, we can therefore see that urban renewal has had different drivers, and different justifications, and has focused on different aspects of urban planning.

Broadly speaking, the concerns of North African Mediterranean societies have evolved from almost exclusively architectural or heritage concerns (demolishing and rebuilding because they are too old, inconvenient, in ruins, etc.), to traffic concerns (breakthroughs), to social and even societal problems. We can thus observe a clear and progressive shift in urban renewal interventions that leads quite rapidly from the sphere of morphological urbanism, the preferred domain of architects and engineers, to that of social urbanism, the domain claimed by geographers and sociologists.
In terms of public action, the evocation of urban renewal and its framing retraces the history of urban planning. The methods of intervention have changed with society.

In modern societies, urban planning was progressively state-run before being decentralized, under the pressure of individuality and local particularities, to end up focusing on economic themes and solidarity, minimizing the reference to the built environment. The outcome of this movement is not without contradiction. Let us simply note the paradox that the result of this movement is not without contradiction: let us simply note the paradox which opposes a movement of integration of actions leading to the conglomerate of measures of the Borloo law to the movement of singularization, fragmentation, of society and urban space. urban space. Faced with the extent of this contradiction, uncertainty remains as to the effectiveness of the actions recommended.

Cities are those which reweave the links between the different facets of the city (neighborhoods, nature, employment, inhabitants whatever their age). Cities where conviviality and citizen participation are the keywords for urban projects for modernization and urban development.

Not all the problems encountered can be solved. It is above all a problem of governance and someone with enough political power must take the responsibility to review, with techniques, the upstream management of the project. When upstream there was no preparation, we find ourselves confronted with inextricable situations, to settle the situation, we must alert the sponsors by explaining:

- It is a problem of governance and consideration of all projects as a single program.

- In the projects of realization of the programs of urban development, it is primordial to integrate a cell of coordination, piloting, and schedule in every project, which will be charged with its mission, the works this last one will be managed by an urban coordinator, which will manage the complete program.

- It is necessary to have an experienced project manager who reviews the project plan and the sub-project plans in a complete manner. The program manager must accompany the project managers and be supported by the sponsors (the state) and sponsors.

No tools or techniques can manage the situation. Someone experienced, with political support, needs to put everything in order: studies, stakeholders, the reworking of project plans, contracting.

Acknowledgments: The authors would like to thank those who provided data on the project.

References
5. Direction of the environment of Constantine province. (n.d.). https://rhinotenders.com/companies/company/de-direction-de-l-environnement-de-la-wilaya-de-constantine-u


© 2022 by the authors. Licensee UAIC, Iasi, Romania. This article is an open-access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY-NC-ND) license (https://creativecommons.org/licenses/by-nc-nd/4.0).