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The contribution of inhabitants to the development of public spaces in eastern Algeria, Constantine

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The creation of public spaces in response to the extensive construction of new urban residential areas is a subject of discussion within the international community. Algeria suffers from degraded areas and a lack of clarity regarding the ownership and use of these zones. To address this issue, the State has launched urban improvement projects. In some cases, the residents are the ones who initiate these improvements. However, it has been observed that many of these improvements either do not last or are purposefully rejected by residents. This situation raises several concerns: Why are residents opposed to these improvements? Why are the improvements initiated and funded by residents deteriorating as well? This study examines the strategies used to implement urban improvements in Ain Smara (Constantine). It also assesses the population's impact on the success or failure of these initiatives. As a research hypothesis, it appears that the main causes of this situation are a lack of involvement of residents in the early stages of the project (lack of information, shared diagnosis) and supervision. The goal is to emphasise the importance of residents' roles and to try to identify some mechanisms for effectively involving them. The method employed is a hybrid approach, with on-site surveys and observations serving as the primary data collection tools. The study's findings emphasise that a lack of information and a lack of resident involvement are factors that contribute to the unsustainable nature of development initiatives. The success of such projects depends on the efforts of all stakeholders, and residents must be kept as informed and involved as possible before and after the project is launched. An examination of local participation experiences allows us to identify mechanisms tailored to the Algerian context that can aid in the effective implementation of true participation.

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Introduction

In recent years, there has been a growing recognition of the importance of citizen participation in efforts to improve public spaces. This phenomenon has arisen due to the swift growth of urban residential zones. Referred to as “grands ensembles” in Europe, these structures represent communal housing in Tunisia and Morocco and are designated as a new urban housing zone (ZHUN) in Algeria. These advancements have taken place during the global housing crisis, leading to the swift growth of cities worldwide. The crisis has led to a lack of proper planning, resulting in the neglect of public spaces. These spaces lack the conventional dimensions of streets and city blocks, as observed by Fourcaut (2006), Carmona (2012), Bertho (2014), Benoit (2016), and Léger (2016).

In Algeria, deficiencies in the planning and management processes, coupled with ambiguity regarding their objectives, have led to public spaces being reduced to mere corridors characterised by neglect, decay, and the proliferation of waste. The rejuvenation of these areas is a top priority for Algerian city administrators, who are dedicated to achieving this goal through the implementation of the ‘urban improvement programme,’ a crucial instrument of urban policy.

In terms of history, the grand ensembles arose from an emergency initiative within the framework of a building policy designed to alleviate the severe housing shortage that arose after World War II. Multiple developed nations built these housing complexes between 1950 and 1973 in response to urgent housing needs and the issue of unsanitary living conditions (Benoit, 2016). A grand ensemble is a collection of rental buildings with a large number of dwellings (Merlin and Choay, 1988). These new urban forms are seen as modernity’s emblems, synonymous with urban, technological, and social progress (Benoit, 2016).

Nonetheless, just a few years after their inception, the grand ensembles have become the subject of intense debate and long-lasting criticism. Public spaces, according to Riboulet (1999), Crump (2002), Fourcaut (2006), Wassenberg (2011), Thomsen et al. (2011), and Bertho (2014), are impenetrable and unwelcoming spaces marked by degradation, a lack of urbanity, a sense of exclusion, and insecurity of community spaces, which has encouraged the emergence of uncivil behaviour. This type of urbanisation was criticised under various labels, including “Chicago” in the 1970s, “ghetto” in the 1980s, and “suburb” more recently (Toubon and Tanter, 1991).

Developing countries, particularly those in the Maghreb region like Morocco, Tunisia, and Algeria, have embraced this housing model, whereas developed countries have either vehemently opposed, dismantled or abandoned it. Algeria’s government has chosen this urbanisation model as the preferred solution to the country’s acute housing crisis. The ZHUN (procedure equivalent to the French ZUP) was adopted by ministerial circular n° 335 on February 19, 1975. Due to its contemporary and economic features, it was the primary tool for urbanisation in Algeria until the Algerian State abandoned it in the late 1980s.

Because of the fragmentation of the urban environment and the disparities between the intended space design and the experience of its residents, the issue of public spaces within ZHUNs has received widespread criticism in research studies (Zerdoumi, 1996; Amirèche, 2000; Mebirouk et al., 2005; Semmoud, 2009; Kadri, 2014; Benrachi and Lezzar, 2014). This situation has had a negative impact on Algerian cities’ social and cultural dimensions, as well as their overall image. Various countries have undertaken interventions aimed at the development and revitalisation of several existing areas, including public spaces, to address these dysfunctions. These efforts include urban, economic, and social processes, as well as political and administrative initiatives involving collective intervention to improve the quality of life (Verhage, 2019).

Based on Jane Jacobs’ (1961) work, many developed countries implemented public policies aimed at improving living conditions

in neighbourhoods. These efforts include urban, economic, and social processes, as well as political and administrative initiatives involving collective intervention to improve the quality of life (Bacqué and Gauthier, 2011). The Maghreb countries (Morocco, Tunisia, and Algeria) are currently demonstrating a renewed focus on public space as part of their urban policies, which is influenced by the time disparity between developed and developing nations.

Previously, public spaces in Morocco were thought to be basic spaces left over from development projects. These have emerged as critical components in the transformation of cities (Moussalich and Iraki, 2022). For example, the renewed interest in public space can be seen in the Bouregreg Valley development project, which began in 2006 on both estuary banks and the revitalisation of the Rabat corniche (Sghir, 2013). With the advent of democratic development in Tunisia, the opportunity to reinvent public spaces has arisen, with sustainable urban planning ranking among the top priorities of the Mahdia municipal council.

In Algeria, public authorities embraced the 1976 urban modernisation plan after recognising the need to improve living conditions in urban areas. Following that, in 2000, an urban improvement policy was implemented as part of a large-scale national programme to aid economic recovery. It aims to renovate run-down housing areas and improve public spaces. However, despite the significant financial resources allocated by the government (MHUV, 2013), the results indicate that the improvements are not long-term sustainable. Despite ongoing efforts to improve them, most Algerian towns and cities’ public spaces, particularly those in collective housing zones, continue to show signs of neglect. This situation results from ineffective local governance, a lack of coordination among various departments, insufficient implementation expertise, a lack of studies, and resident non-participation (Bouadam, 2013; Bouldjemar, 2019).

The urban conglomeration of Constantine in eastern Algeria, along with other cities in Algeria, has actively engaged in a programme focused on enhancing the living conditions in various residential areas, including the town of Ain Smara. Three urban enhancement initiatives have supported this latest effort (DUAC, 2014). These operations cover 72 ha, affect 17,136 people, and affect the ZHUNs of 542 and 1650 housing units, as well as the Ghimouz subdivision. This initiative is primarily concerned with the enhancement of outdoor spaces. Nonetheless, it has been observed that after project completion, some improvements survive, while others (the majority) face rejection and, in some cases, intentional vandalism by residents. In light of these behaviours, the following question arises: What are the reasons that led the residents to reject these improvements, and why do the developments initiated and funded by the residents also suffer from degradation? To address this issue, we have adopted the following hypothesis: it appears that the primary causes of this situation are a lack of resident engagement in the early stages of the project (inadequate information and shared diagnosis) and a lack of supervision.

The objective of this study is two-fold. First, we aim to highlight the importance of the citizen’s role as an engaged contributor in determining the outcome, longevity, or lack thereof of these endeavours. Second, we intend to develop approaches that are tailored to the Algerian context, involving residents genuinely and efficiently. To address these inquiries, we can examine two occurrences that took place in the locality of Ain Smara. Within this context, the lack of citizen participation and the refusal of projects appear to be linked to factors such as inadequate information dissemination, disregard for residents’ preferences, and neglect of various spatial utilisation methods (as evidenced by the exclusion of citizens from the diagnostic process). Furthermore, this study seeks to emphasise the importance of citizen involvement in influencing the result, longevity, or absence of success of such initiatives. The

aim is to identify appropriate strategies for engaging residents that are tailored to the specific circumstances of Algeria.

Literature review

Participation: a challenge for sustainable development. One of our era's foremost challenges is achieving sustainable development, with a particular emphasis on the critical need to align economic growth, social justice, and environmental sustainability (United Nations UN, 2022). Since the United Nations published the 2030 Agenda for Sustainable Development in 2016, global sustainability has grown in importance (United Nations UN, 2022). The 2015 Sustainable Development Goals (SDGs) are a global call to action to end poverty, protect the environment, and improve living conditions (Hege et al., 2019). Furthermore, SDG Target 11 recommends that all countries strengthen inclusive and sustainable urbanisation, as well as capacities for participatory, integrated, and sustainable human settlement planning and management (Hege et al., 2019).

Participation is defined as a process, means, and mechanisms used to actively involve citizens in political decision-making during the project and implementation phases (Farinós, 2009; André, 2012). It is at the heart of Principle 10 of the Rio Declaration on Environment and Development (1992) and plays an important role in Agenda 21, which aims to empower citizens and foster the development of a democratic society. However, the action plan does not specify the nature of this participation or how it will be carried out (Rumpala, 2008). Nonetheless, its benefits have been discussed and demonstrated in numerous studies over the years (Bowen, 2007). This involvement aims to achieve managerial goals such as increasing the effectiveness, sustainability, adaptability to the needs of various stakeholders, and acceptability of public action. A social goal is to strengthen social bonds and promote cohesion, whereas a political goal is to educate and engage citizens, revitalise democratic processes, and establish a new right for residents to participate directly in decision-making (Lefebvre and Nonjon, 2003).

Without a doubt, one of the most common areas for public participation is urban planning. Initially, participatory processes focused primarily on public inquiries. Procedures such as consultation and public debate have been introduced over time, resulting in a genuine participatory offer (Denolle and Duval, 2019). The prohibition on citizen and resident participation in urban development projects has become a guiding principle of public territorial action. It refers to a dialectical relationship between the expertise of the experts and the lived experience of the inhabitants. It reveals a wide range of expectations and skills, and it remains a critical component of innovative urban planning and sustainable development (Rabinovich and Bouchanine, 2005). According to Burby (2003), who conducted a study of sixty local planning processes, increased stakeholder involvement leads to a better understanding of these plans and, as a result, more effective implementation.

Participation variables. Several studies have revealed that citizens' participation in city affairs is of interest to a variety of variables. The majority, on the other hand, insists on information, the degree of attachment to the city, and the forms of appropriation, especially when the space has been occupied for a while. According to Hurard (2011), involving stakeholders can help to reduce the 'NIMBY' phenomenon (not in my backyard), which is a common cause of project rejection due to personal interests or a lack of information. Engagement allows for project customisation based on stakeholder interests. Failure to communicate with citizens may give the impression that public authorities are uncaring. Access to information is critical and underpins these mechanisms. Similarly, the effectiveness of stakeholder involvement is dependent on trust and an understanding of societal

culture. As a result, envisioning urban development initiatives apart from their social and cultural context is difficult.

Hofstede (1980 and 1997) reveals an intriguing relationship between culture and participation in a study spanning multiple countries (Turkucu, 2008). As a result, before intervening in an inhabited place, specialists should seriously consider this factor, particularly in communal housing areas in the Maghreb region and in Algeria, where the phenomenon of appropriation of outdoor spaces by inhabitants is firmly prevalent in various ways. Without a doubt, the information provided is critical for participation, but how it is communicated has a strong influence on the decisions made (Rydin, 1998; Turkucu, 2008). This prompts us to call attention to another aspect mentioned by Turkucu (2008): language. Furthermore, it is critical to bridge the gap between the expert and the resident user by using a language that the citizen can understand. Technical jargon is sometimes inaccessible to certain groups of people. As a result, the language used by stakeholders in participatory processes must be clear.

Many studies on the relationship between participation and attachment to a place emphasise the level of attachment to a place or city. Scannell and Gifford (2010) define place attachment as a multidimensional concept with components related to psychology and the uniqueness of the location. It is a complex phenomenon that emphasises a positive emotional connection between people and familiar places (Altman and Low, 1992). Several studies have been conducted to investigate three concepts derived from the phenomenon of attachment: the appropriation of space, belonging to the place, and spatial identity in particular (Sebastien, 2018). According to Nelkin and Pollak (cited by Barbier et al., 2013), trust between citizens and public actors is another important factor in promoting participation. Citizens, in general, lack trust in politicians and government officials, frequently doubting that politicians truly care about their needs. Trust between citizens and public actors is lacking in the Maghreb countries (Belkaid and Alili, 2020; Zitoun, 2021; Bouadam, 2013).

Citizens also lack active citizenship experience and civic education in a democracy. The American think tank Carnegie Middle East Centre conducted research on civic education programmes in eleven Arab countries, including the Maghreb countries (Tunisia, Algeria, and Morocco). Despite Arab countries' efforts to incorporate the concepts of citizenship, democracy, and human rights into civic education textbooks and school curricula, the study concluded that teaching and practice are insufficient and do not encourage individuals to develop a natural civic conscience (Blaise, 2013). This encouragement is conditional on a political and national commitment to instill genuine citizenship consciousness. In the case of Algeria, the majority of their textbooks characterise and even encourage the concept of democracy. Despite this proclivity for democracy, the study (Blaise, 2013) found that textbooks are disconnected from reality.

Levels and dynamics of participation and implementation.

Participation can be implemented descended, also known as "top-down," from a public authority initiative towards the inhabitants, or ascended, also known as "bottom-up," from a citizens' initiative towards the public authorities, via mediation bodies such as associations or citizen groupings, or by posters, letters, or the organisation of public meetings (Hurard, 2011). Top-down and bottom-up approaches are both possible (Polère, 2007). Participation is defined by several stages or degrees, the first of which is information; the second is consultation, which consists of gathering residents' opinions about a specific project and considering them in final decision-making (Thompson, 2010). The third and final level of participation is consultation. Touzard (2006) defines it as "all discussions in which the cooperative orientation predominates and

the intention is to construct together.” Co-production then occurs, resulting in a fundamental redistribution of decision-making authority. It transforms residents and citizens into agents of change in the development and implementation of a project.

Participation experiences and theorisation date back to the 1960s (Bacqué and Gauthier, 2011). Sherry R. Arnstein (1969) was one of the pioneers who referred to this practice in her article “A Ladder of Citizen Participation,” published in the American Journal of Planning Professionals in 1969, which conceptualised a “ladder of participation” involving participatory devices in urban renewal, poverty alleviation, and model cities (Bacqué and Gauthier, 2011). Sherry Arnstein has proposed a participation ladder with eight levels divided into three distinct categories: non-participation, symbolic cooperation, and adequate citizen power. Its realisation involves several stages of consultation, ranging from information to evaluation. To influence public action, participation must be viewed as a multifaceted interaction in which citizens and other actors collaborate and communicate in formal and informal settings (Innes and Booher, 2004). The citizen-inhabitant is acknowledged as an actor and encouraged to actively participate in the project’s development (Giraud, 2017).

Instruments for participation implementation

Western countries. Various instruments have been utilised in Western countries, including community planning in England, the citizens’ jury in Germany, the ‘consensus conferences’ method in Denmark, strategic urban planning in Spain (particularly in Barcelona during the 1970s), and participatory budgets in Porto Alegre, Brazil (beginning in 1989). This experiment in creating a new non-state public sphere was a huge success, serving as a model for other cities and even countries in Latin America and Europe. Eco-districts in Europe frequently value resident participation, as in the case of Vauban in Fribourg-en-Brigsau, where the urban project developed paradoxically in a constructive conflict (Héland, 2008).

In France, the law on solidarity and urban renewal encourages residents and associations to be involved in the development of projects that affect their living environment as early as possible. The texts no longer only mention the obligation to “inform” and “consult” the population but also “consultation” and “participation” (Zetlaoui-Léger, 2005). The tools and practices of participation are extremely diverse: neighbourhoods or municipal committees, letters of information, namely information, and surveys of resident users, which are the most popular in Europe; surveys with resource residents; public dialogues or meetings; and, in France, the city charter (Zetlaoui-Léger et al., 2013). Following the civil rights movements, anti-poverty programmes in the United States placed a premium on “resident participation” (Bowen, 2007). Participation is also a key concept in international development agendas, particularly those of the World Bank and the International Monetary Fund. Some researchers demonstrated that this approach can have ambiguous effects, potentially strengthening the position of those with the most clout in society while marginalising the most vulnerable (André, 2012; Belkaid and Alili, 2020).

Maghreb countries: from international to national. Several studies have been carried out in Maghreb countries (Tunisia, Morocco, and Algeria). As an example, consider the Tunisian participatory budget mechanism, the Tamkeen initiative, which is part of the UNDP strategy (IOPD, 2016). Since the beginning of the twenty-first century, there have been many more opportunities for people in Moroccan cities to become involved in politics. Initially, donors and two-way cooperation were to blame. They were later passed on through municipal planning, the national human development initiative, or new local government laws related to “advanced regionalisation” (Iraki and Houdret, 2021).

The World Bank (IMF) has funded two programmes in Algeria: the first, in 1997, was a rehabilitation programme for collective housing complexes that targeted five districts spread across five provinces of the country (Algiers); the second, in 1998, was the precarious housing resorption programme (RHP), which was adopted and funded by the World Bank. To varying degrees of success, these pilot projects attempted to implement a participatory approach within the framework of good governance cooperation programmes (Zitoun, 2021).

Furthermore, it is important to note that participatory practices have long existed in Algeria, as well as Morocco and Tunisia. However, some new forms of political organisation have emerged in Algeria (Zitoun, 2021), such as participatory housing (such as participatory budgeting) and agricultural self-management, such as the agrarian revolution’s thousand agricultural villages programmes. Because they emerged within specific political contexts, these initiatives did not receive the modern ‘participatory’ label (Zitoun, 2021).

Bottom-up participation experiences in Algeria. The Azzaba Council, similar to other bottom-up participation initiatives, is a local advisory body in Tunisia. It serves as a federal council governing the eight Ibadi cities of the pentapolis of Ghardaia in M’zab, a Berber-speaking region in northern Sahara located in the Province of Ghardaia in Algeria (Messaoudene and Messaoudi, 2016). The council members engage in deliberations and render decisions on a diverse array of matters that impact the Ibadi life community. The attained urbanity is the outcome of a spirit of coordination, administration, and communal backing. In this world, community consultation holds legal authority, as stated by Adad (2008). Another model of participation is the Twiza, a type of horizontal citizen engagement popular in Algeria and other Maghreb countries. This practice is deeply ingrained in traditional society. Twiza is a non-commercial, private-sector housing activity that includes both small and large construction projects for houses or gardens. It usually includes an organiser, participants, and, if necessary, a professional guide. Twiza is an organised structure that was created out of necessity and faded once the problem was solved so that it could be resumed if necessary. Twiza, as a collaborative and responsible job, has two components: social and economic. Solidarity is required for a man to be happy and to live a more civic and humane life (Bechmann, 2000). Some Twiza-based projects between the public and those in charge have clearly demonstrated that symbiosis between public authorities and citizens is possible (Adad, 2008). Similarly, Tadjmait, or village committee (a social structure comprised of representatives from various villages) in Kabylie (a Berber-speaking region in northeastern Algeria). This participation is carried out through a few mechanisms and an organisation tailored to the local context.

To begin, a multidisciplinary team of residents, associations, university professors, and businesses collaborates closely with the village committee. Each of these partners serves a specific purpose; associations provide awareness and information. During village festivals, academics are in charge of educating the populace by organising seminars, conferences, and workshops. Finally, the village committee is in charge of the administrative and financial organisation (it establishes the rules and imposes sanctions). Unfortunately, these experiences have remained in the realm of practice. They have not been replicated, institutionalised, or generalised to the point of becoming a legal obligation (Zitoun, 2021) or serving as a source for determining the mechanisms of participation appropriate to Algerian culture. They have not been theorised, developed, updated, or regulated to become practices that are currently in use.

Participation in Algerian legislative texts. Algeria adhered to protocols related to sustainable development and attempted to respond to provisions of good governance emanating from international institutions in the early 1990s. Article 15 of the Algerian constitution emphasises the encouragement of participatory democracy at the level of local communities (GSG, 2016). Citizens' participation in urban improvement projects was initiated in Law No. 2006-06 of 21 Moharram 1427, corresponding to February 20, 2006, on the city orientation law. Citizens are involved in programmes relating to managing their living environment, particularly their neighbourhood, according to Article 17 of this law (MHUV, 2006). The State sees bringing together the conditions and mechanisms that will allow citizens to have an influential association with the city's policy programmes and actions. According to this law, citizens should be kept up to date on the State of their city, its evolution, and its prospects. Participation is also mentioned in planning and urban planning instruments such as the master plan for development and urban planning (PDAU) and the land use plan (POS). In these instruments, citizen participation takes the form of public enquiry, whereas, in other projects, it takes the form of information (MICLAT, 2011).

Methods

This article investigates citizen participation in initiatives aimed at improving public spaces in newly developed urban housing zones (ZHUN). The primary goal is to investigate urban development efforts and their implementation, with a focus on case studies in the eastern Algerian agglomeration of Constantine (Ain Smara), to assess the impact of public participation on the outcomes of these endeavours. A mixed-methods approach was used to achieve the study's objectives. The study combined quantitative findings from a survey with qualitative data gathered through semi-structured surveys and on-site observations conducted over several years (2015, 2017, and 2022). The survey was used to collect quantitative data (Appendix Table 1). The latter was distributed to all nearby residents. The survey consists of 13 questions designed to collect vital information about the population, project users, and various practices within the project area. The survey concludes with a question about the residents' feelings about the project.

Demographic data is inextricably linked to factors like household count and composition, as well as age cohorts. These features improve our understanding of demographic diversity by utilising the research area. Furthermore, the length of time that individuals' housing units are in a particular location provides valuable information on historical trends in how space is used and claimed. Furthermore, the survey aims to understand people's emotional attachment to the area (data on this demographic is included in questions 1, 2, 3, 4, 5, and 6). The survey is only for the individual who holds the position of head of household. Our survey includes questions directed at all family members about their behaviour inside the space, with a particular emphasis on data related to building occupants' use of space. The goal of these questions is to determine the various ways in which people of various ages use the provided area. Questions 7, 8, and 9 specifically address these concerns.

The responses provide information about residents' knowledge of the project, the existence of a neighbourhood committee, and their participation in consultations. Our goal is to determine whether the residents were adequately informed about the project's content (Questions 10, 11, and 12) and their position on it (Questions 13). The survey now includes a field survey that includes semi-structured qualitative surveys with residents. The purpose of the survey is to ascertain the underlying causes of the residents' attitudes and behaviours towards the project. The qualitative investigation focuses on the residents and business owners who are involved in these efforts. By capturing their visions, we can better understand and examine resident behaviour, identify

individuals and activities in this area, and investigate citizen participation in urban enhancement initiatives. The entrepreneurs in our sample have been tasked with researching and supervising the implementation of this project at the municipal level.

On both weekdays and weekends, ten (10) semi-structured surveys with residents of various ages and socio-economic backgrounds were conducted to gain a thorough understanding. This method facilitated effective communication and provided a variety of explanations and opinions on the study's subject. The one- to two-hour surveys focused on three main topics: residents' opinions on the project's content, such as the play area, the construction of the fence, and the removal of the mechanical access that residents had used for many years; understanding their role as the main stakeholders and their perspective on inadequate communication from public authorities; and investigating residents' involvement in the project's destruction. A field survey is conducted with the residents of the second site, which consists of 500 housing units, to elucidate the residents' strategy for the advancement of their project and its impact on its sustainability. The field survey was carried out over two years of field observation. Photography is essential in the exploration of the field. Furthermore, this study is based on documentary research sourced primarily from scholarly publications and articles that cover key principles pertaining to urban enhancement in Algeria. Documents and reports from the Ministry of Housing, Town Planning, and the City were used, as well as data from the Ministry of Planning and Regional Development. We consulted the urban planning department of Architecture and Construction in Constantine, as well as the local authorities of Ain Smara, to obtain field data.

Urban improvement initiatives: goals and strategies. Algerian cities have seen rapid development as a result of the housing crisis, with little regard for the design of public spaces. As a result, the living environment has deteriorated, particularly on the outskirts of cities (Bouadam, 2013). The Ministry of Housing, Town Planning, and the City (MHUV) conducted a thorough investigation that revealed the ongoing deterioration of Algerian cities' built environments (2005) (MICLAT, 2006). The significance of improving neighbourhoods across the country was emphasised in order to ensure that citizens have a more pleasant living environment. Algeria has carried out urban improvement projects to achieve this goal. These operations are part of a larger programme to improve the living conditions of residents, specifically in ZHUNs. These initiatives involve efforts to improve and upgrade deteriorated neighbourhoods' urban infrastructure, such as sewage systems, public lighting, parks, playgrounds, and community recreational areas. The goal is to improve urban infrastructure in approximately 3,700 neighbourhoods across the country (MHUV, 2008). In 2007, the State allocated a budget of approximately 100 billion dinars (equivalent to nearly 1.5 billion dollars) to all provinces for urban development (MHUV, 2008).

Key stakeholders and methodologies in the implementation of urban improvement projects. In theory, managing urban improvement projects entails coordinating operations among various stakeholders such as the State, the Local People's Assembly (APC), technical design agencies, businesses, and neighbourhood associations. A committee has been formed to oversee operations in order to achieve this goal. The committee includes representatives from the province's various technical services, including the APC, DTP, DRE, SEACO, SONELGAZ, Algeria Telecom, and forest conservation. This committee's purpose is to attend meetings and present the studies conducted by the design offices responsible for the projects in order to provide technical assessments. Furthermore, through weekly meetings held at construction sites, the committee coordinates the efforts of various stakeholders and oversees the progress of the work (DUAC, 2014).

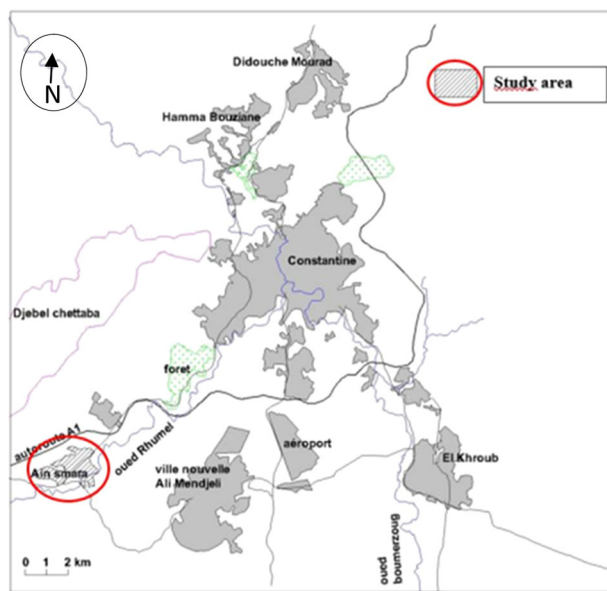


Fig. 1 Comparative location: Ain Smara and the Wilaya of Constantine. Source: PDAU of Ain Smara (2009).

Constantine's director of urban planning, architecture, and construction emphasises that in order to select the appropriate intervention, urban improvement of cities requires a comprehensive diagnosis to comprehend the urban reality, identify the issues, and, most importantly, understand the residents' aspirations. The operations are carried out after a planned diagnostic phase that includes an analysis of the district's urban characteristics. The next step is to identify the district's lack of sustainability and high-crime areas. The third stage entails the formulation of recommendations (DUAC, 2014): Is that an accurate representation of what happened on the pitch?

Study area. The study area is centred around Ain Smara, which is one of the twelve towns established in the province of Constantine in 1854. It is located about 17 kilometres southwest of Constantine (Fig. 1) and covers an area of 175 km². Due to a lack of urbanised land within Constantine's urban perimeter, the extension was first transferred to small centres, one of which is An-Smara (DUAC, 2014). As a result, it has grown from a small village of 2815 people in 1977 to 10558 people in 1987 to 57017 people in 2020, with a population density of 211.4 people per km² (ONS, 2020). This expansion is the result of the ZHUN's reception of 1650 housing units in 1987, which hosted a population primarily from Constantine (Fig. 2). As a result, the city's population density is 211.4 inhabitants per km². Because of its location on a major road connecting Constantine to Sétif, Bordj Bou Arreridj, and Algiers, Ain Smara is considered one of the most dynamic cities in the province of Constantine. Furthermore, the radius of influence encompasses a large portion of Constantine's western region, which contains a significant industrial zone (mechanical industry). Despite this, it is still heavily influenced by the social and economic changes brought about by the expansion of industrial activities and their uncertain future.

Urban improvement operation in Ain Smara. A massive sanitation repair and beautification programme should affect all city districts in Constantine, the capital of eastern Algeria. The city-improvement initiatives that began about a decade ago are divided into three programmes: 2005–2009, 2010–2014, and 2015–2019. The programmes had an impact on 106 sites worldwide, including 40 large housing estates (ZHUN), 37 subdivisions, 21 former

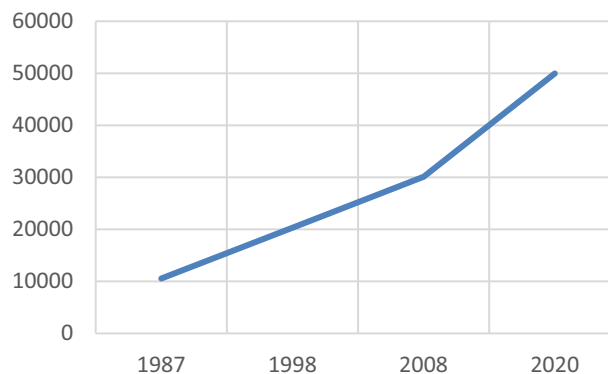


Fig. 2 Population growth in the Ain Smara conurbation. Source: Authors based on ONS data, 2023.



Photo 1: Children's play areas.

Credit: Authors, 2011

colonial urban fabrics, and eight spontaneous fabrics (DUAC, 2014). The Ain Smara municipality's urban improvement initiatives focus on two districts: one within the ZHUN, with 1650 housing units, and another within the city, with 500 CNEP housing units built towards the end of the 1990s (Fig. 3). The ZHUN of 1650 housing units built in the 1980s spans 40 ha and is divided into three cities: 500 houses, 900 housing units, and 250 housing units. The district is made up of four R + 4 buildings, with shops on the ground floor. The district has 167 people living in 36 apartments (36 households). The second district, dubbed "the city of 500 CNEP dwellings," is made up of 8 R + 5 buildings and a population of 510 people (PDAU Ain Smara, 2020).

First example: the development of a playground. The town benefited from an urban improvement programme project in 2011. This project entails converting a vacant space between buildings into a playground for children in the ZHUN's 1650-unit housing district. This development consists of building a fence around the property and installing appropriate furniture (chairs, slides) (photo 1). The municipality initiated this project. It is part of the urban improvement operations that have benefited the municipality of Ain Smara. This project, which cost 2.5 million dinars (APC, 2017), however, only lasted a few months after it was approved. The inhabitants have accelerated the deterioration process. The street furniture, the children's playground, and the fence were all damaged (Photos 2, 3, and 4).



Photo 2 (2015)



Photo 3 (2017)



Photo 4 (2022)

Photos 2, 3 and 4: Deterioration of children's play areas.
Credit: Authors, 2023

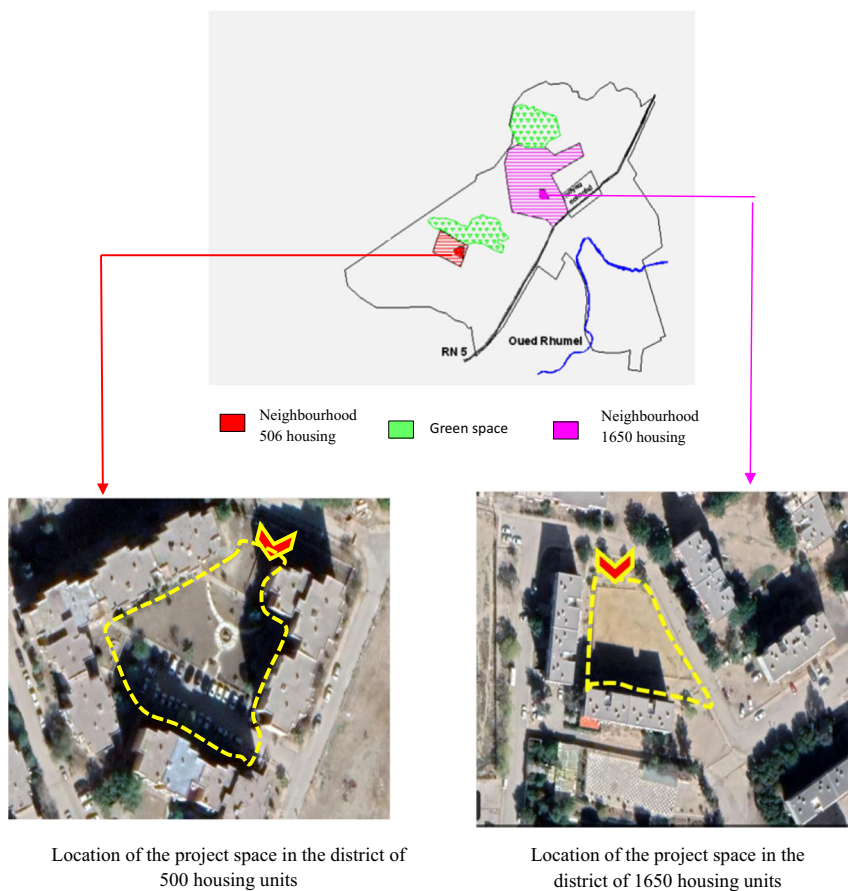


Fig. 3 Geographical position of the two study areas in Ain Smara. Source: PDAU of Ain Smara (2009).

Second example: embellishment developments conducted by the inhabitants. Residents of the 500 CNEP housing district initiated this project, and they are also the main contractors. Following discussions, they decided to improve their living space by installing a water jet to improve the neighbourhood (Photo 5). The project began with a series of community meetings. These gatherings took place every Friday after prayer and lasted between ten and fifteen minutes. Neighbours shared their perspectives on the ongoing project during these sessions.

Furthermore, the success of the water jet has inspired residents to embark on other projects, such as the creation of green spaces, the installation of street furniture lighting, the construction of pedestrian walkways, fencing, and other minor beautification projects (Photos 6, 7, and 8).

The purchase of building materials was funded by the contributions of the residents, according to their means, and they were informed via posting (Photos 9 and 10). Every Friday, a weekly rest day in Algeria, young people from the neighbourhood

volunteer to do the work. The project is designed and monitored by a young architect (a district resident), who is assisted by some of the residents.

After the neighbourhood’s outdoor space was improved, it became the living space of its residents, so its preservation is their responsibility. To make their activities legal, the residents contacted the local government’s technical service to obtain permission for the work. The governor, “Wali” of Constantine, directed the municipality to launch additional operations to develop green spaces in the 500-unit housing district.



Photo 5: Installation of a water fountain.
Credit: Authors, 2017

Results

The survey results show that the population lived in this neighbourhood decades ago. According to the age category (Fig. 4), adults outnumber children under the age of 12. The district’s socio-professional class is predominantly managerial and liberal (Fig. 5). The majority of women are housewives (Fig. 6). In addition, some residents (05) have operational commercial properties in the district, and only 23 residents own a vehicle.

Regarding the utilisation of the district’s space, the survey findings indicate that most residents utilise the playground as a parking area during nighttime (Fig. 7). Approximately 50% of the children engage in recreational activities within this designated

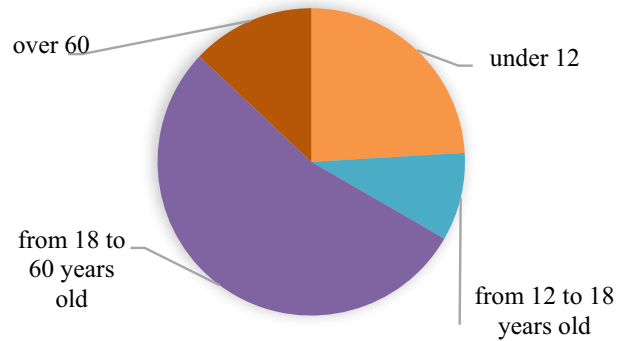


Fig. 4 Age category. The figure illustrates the age category of the residents in the neighbourhood.



Photos 6, 7 and 8: Improvements undertaken by residents.
Credit: Authors, 2017



N°	NATURE	QUANTITE	PRIX UNITÉ	TOTAL
01	INTERFERENCE DE SERRURE	02	15000.00 DA	30000.00 DA
02	SERRURE ELECTRIQUE	03	4000.00 DA	12000.00 DA
03	CABLE ELECTRIQUE	2000 m	50.00 DA	100000.00 DA
04	PIECES DIVERS			10000.00 DA
TOTAL GENERAL				260000.00 DA

N°	NATURE	QUANTITE	PRIX UNITÉ	TOTAL
405
407
409
411
413
415

N°	NATURE	QUANTITE	PRIX UNITÉ	TOTAL
405
407
409
411
413
415

Photos 9 and 10: District resident information display (work estimate and fundraising progress).
Credit: Authors, 2017

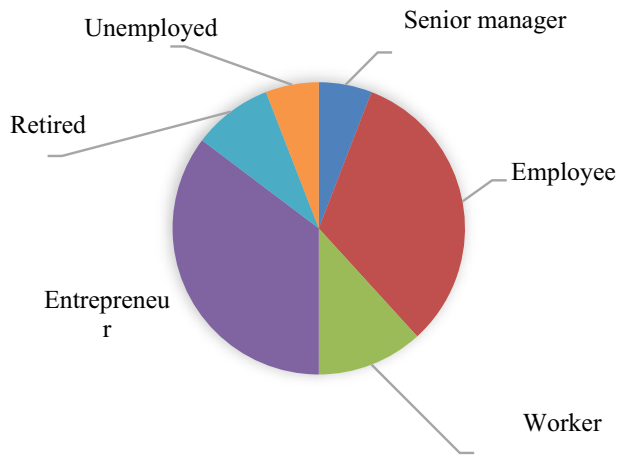


Fig. 5 Socio-professional categories. The figure shows the socio-professional category of the neighbourhood's inhabitants.

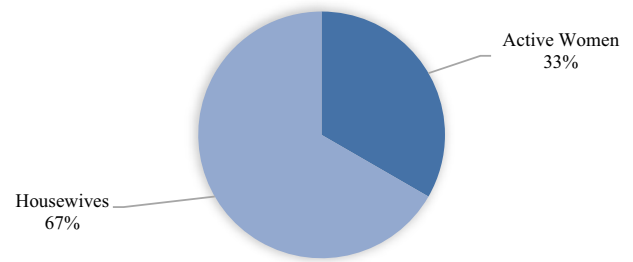
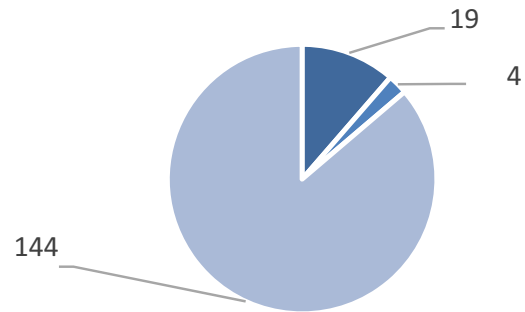
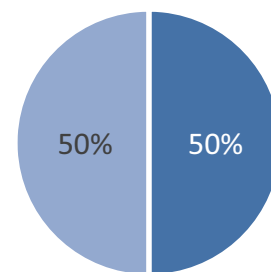


Fig. 6 Professional status of women. The figure shows the number of working and non-working women.



- Residents with vehicle who use the space
- Residents with vehicle who do not use the space
- Residents without a vehicle

Fig. 7 Vehicle parking place usage. The figure shows the number of residents who possess a vehicle, the number of residents who use this area as parking during the night, and the number of residents who do not possess a vehicle.



- Number of households with children who use the play area
- Number of households without children who use the play area

Fig. 8 Space usage by children. The figure shows the proportion of households that have children who use the space to play.



Photo 11: Before development.
Credit: Bouadam, 2013



Photo 12: After development.
Credit: Bouadam, 2013

area, as depicted in Fig. 8. This area is frequented by children, adolescents, elderly individuals, merchants, and occasionally women. The survey results complement this question.

In terms of citizen awareness, the survey results show that only 3% of residents were informed about the project, and, interestingly, none of them were aware of the existence of a neighbourhood committee or association. This was supported by their admission that they had not been consulted about the use of the

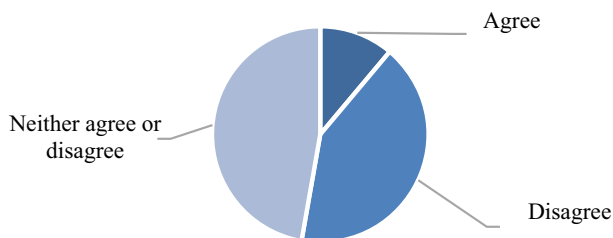


Fig. 9 Residents' opinions on the project. The figure presents data regarding the viewpoints of the inhabitants at the start of the area's development project.

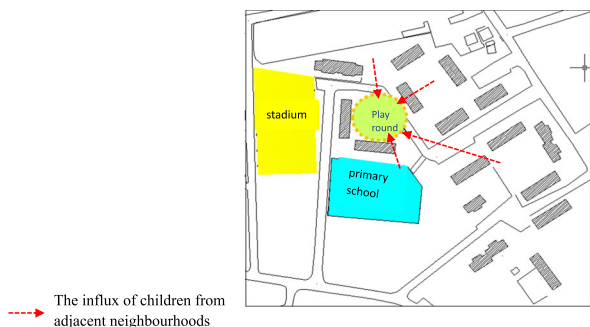


Fig. 10 The influx of children from adjacent neighbourhoods. Source: Authors, 2023.

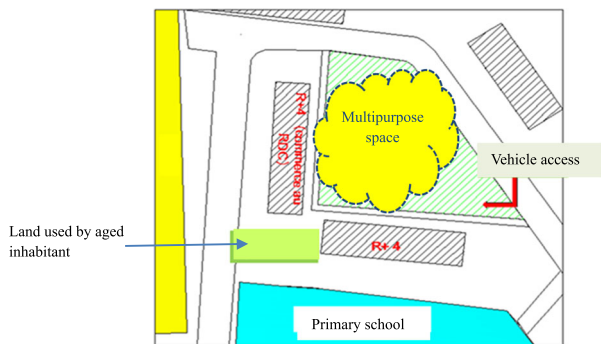


Fig. 11 Use of public space before its development. Source: Authors, 2023.

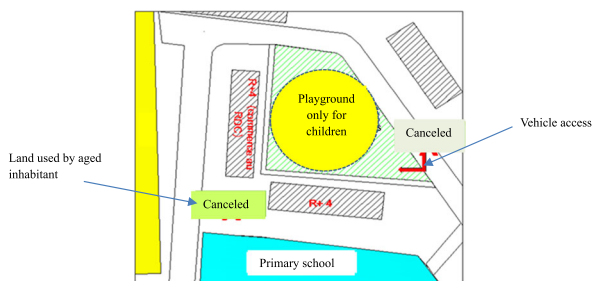


Fig. 12 Use of public space after its development. Source: Authors, 2023.

specific area in question. This question is about their thoughts on the layout of the square. Initially, the majority of residents were either opposed to or indifferent to the project (Fig. 9). However, following the destruction of the playground, all of the surveyed residents were opposed to the development for reasons that will be explained in the survey results.

Survey results. We conducted semi-structured surveys with residents of the 1650 housing estate block and project managers to better understand their attitudes towards this project. Except for women, everyone was affected by this survey. We were unable to poll the women on social and cultural issues. The survey results relating to residents' dissatisfaction with the project and the voluntary degradation process are summarised in the following subsections.

Lack of information and diagnosis. The vast majority of adults (97%) confirmed that they were neither informed nor consulted about this project, and they expressed surprise at the site's installation in their neighbourhood (Question No.10 in Table 1). Furthermore, respondents to the survey stated that those in charge of the project did not solicit their feedback on how the space was used on a daily basis. They emphasise their lack of knowledge of the existence of the association and their refusal to allow it to be associated with the negotiations. The latter does not communicate with the residents or disseminate information about its activities, which explains the lack of information and the fact that only 3% are informed. Others believe that the project is the municipality's, not theirs, and that it is not intended for their children.

A coveted neighbourhood with a disturbed balance. One of the arguments advanced by residents whose children use this playground (50% according to the survey results) is that the land was previously a playground for the children of the area/block in which it is located (photo No.1). The latter was coveted by the children of neighbouring districts after its development as a playground (Fig. 10). This situation disrupted the tranquillity of the neighbourhood/block and caused a number of annoyances.

Loss of a football pitch, a car park and a source of income. The layout has reduced the categories using this space for young boys (12–18 years old) to children aged at least six, depriving middle and high school students of their football pitch. Other residents, however, argue that the real reason for the project's rejection is the loss of residents' "parking" as a result of the removal of mechanical access to this land. The latter provides a source of income for some young people in the neighbourhood (surveillance and management of the parking lot). Furthermore, the removal of access to this space caused difficulties in supplying shops.

Non-consideration of usual practices in the proposed developments. The results of the survey by survey, combined with the results of the survey and observation, enabled us to summarise the appropriation of space by the block's residents in Fig. 11. Children under the age of 12 play ball, ride their bikes, and do other activities in the space to varying degrees. It is used as a football pitch by children over the age of 12. Shopkeepers use this space to perform specific tasks (such as vehicle repairs) and to access shop deposits by opening shops on the square. It serves as a meeting place for the older women. Pensioners use it for meetings and games; it is also used for traditional domestic activities such as drying wool in the summer. At night, it transforms into an informal parking lot managed and monitored by a few young people from the neighbourhood for a fee (source of income). However, in this project, the designers ignored all of these practices and limited the space's users to children under the age of six (Fig. 12).

Discussion

Information is a lever for the involvement of citizens. Citizens' participation in a democratic society has long been associated with it (Belkaid and Alili, 2020), and participation is impossible without information. The latter is regarded as the key participation lever. It is necessary to progress to the next level of involvement. To be effective, information must be explicit, precise, and transparent (Giraud, 2017). Its importance lies in achieving the predetermined goals and increasing the project's efficiency, which ensures its viability. As a result, the social and cultural pillars of urban development initiatives are critical (Tozzi and Greffier, 2015). This study reveals a complete lack of information about the project, as well as communication and dialogue among residents, the association, and the local government. There was no explanation, notice, or consultation with experts during the installation of the construction site in the neighbourhood, which caught the residents off guard. Participation, on the other hand, alludes to a dialectical relationship between specialists' expertise and residents' lived experience (Giraud, 2017). This experience was completely ignored in this endeavour. Citizens perceive the government's failure to inform and communicate as a lack of consideration and regard. As a result, there was no participation, and the project was rejected. This situation has failed in an important aspect of governance, as well as the lack of user support for this endeavour.

Experience confirms that it is no longer possible to design projects without involving residents, based on the statements of many local elected officials and planning and construction professionals in many Western nations. According to Zetlaoui-Léger (2005), it is increasingly important for appropriation, the quality of administration of created spaces, and the effective execution of operations. The territory becomes an important component of urban citizenship in this context (Belley, 2003). This highlights the significance of neighbourhood associations and committees in the administration of public spaces. Dris (2016) argues that urban space must be defined collectively by the associational world and other civil society representatives.

However, citizen participation in urban improvement projects has taken a top-down approach in some cases and a bottom-up approach in others. The example of the 500 housing units demonstrated how the goodwill of the residents (project funding) mobilised them around a joint project in a climate of solidarity, mutual aid, transparency, communication, and collaboration. Posters provide information, and Friday meetings (held after Friday prayers) supplement it. This initiative has proven to be successful and has a high level of participation. However, residents noticed a lack of maintenance and the beginning of deterioration of the facilities, which they attributed to the architect's relocation (who was the project's instigator and overseer of development activities). Using a method that relies on individual initiatives creates a problem for management continuity. Based on this example (500 homes), it is critical to recognise that a project that is not integrated into the life of the community, lacks the support of a neighbourhood committee and professionals from the urban sector, and lacks city funding is doomed to fail. As a result, deterioration began, with the inhabitants' explanations linking the move of the architect (the initiator and supervisor of the development operations).

Fundamental knowledge of inhabited areas for the project's success. In theory, every project begins with a diagnostic phase. When a space is occupied, various logics, issues, and interests emerge. As a result, effective intervention necessitates knowledge of the site and its history (Juillet et al., 2015), effective governance, and the participation of all relevant actors. The acquisition of this

knowledge is impossible without the participation of space users. The ability to understand the "lived" inhabited territory is critical to the success of any intervention initiative. It is difficult to imagine redesigning this space without taking into account the social and spatial practices and representations that have shaped and continue to shape place identity (Zetlaoui-Léger, 2005). We can supplement urban planning professionals' technical knowledge by informing them about daily life (Zetlaoui-Léger, 2005; Verdier and Gautry, 2009).

Nevertheless, the study's results corroborate the lack of any diagnosis or investigation. This issue is emphasised in almost all research on urban enhancement initiatives (Bekkouche, 2010; Bouadam, 2013; Bouldjemar, 2019; and other sources). As stated by the director of town planning, architecture, and construction in Constantine, it is crucial to carry out these operations by first conducting a thorough shared diagnosis. This will allow for a better understanding of the urban environment, identification of issues, and, most importantly, comprehension of the residents' desires (DUAC, 2014). The actuality, nevertheless, diverges from the programmed expectations. Reconciling the perspectives of experts and residents is exceedingly challenging. This challenge is intensified when professionals fail to actively enhance the calibre and availability of information accessible to the general public (Giraud, 2017) or lack a systematic approach to cater to different demographic groups.

The study reveals a lack of familiarity with the forms of appropriation established by the residents decades ago (Dris, 2016). The appropriation of space reflects the issues, tensions, and conflicts that affect the entire society. Ripoll emphasises the significance of appropriation as an action strategy and resource (2005). Indeed, appropriation is transformed into a sense of belonging (Sebastien, 2018), and those who have lived in a city the longest tend to have the highest attachment indicators (Pretty et al., 2003; Belkaid, 2020). Attachment to a place is analogous to space appropriation, which is defined as the sensation of feeling at home or in one's place (Ripoll and Veschambres, 2005). This explains the residents' dissatisfaction with the project, which did not respect their location.

Many analogous contexts, including Maghreb cities, have strongly demonstrated that cultural norms, including the distinction between public and private spaces, shape uses, forms, and social interactions (Sidi-Boumediene, 1985). A lived space approach reveals the places, objects, and atmospheres that serve as the foundation for a multifaceted appropriation that includes material, aesthetic, individual, and collective aspects (Dris, 2016). Certain authors highlight the correlation between various forms of public space utilisation and distinct demographics (Bouchanine, 2003; Toussaint and Zimmermann, 2001). This argument holds immense significance for Maghreb societies. Algeria exhibits a diverse range of population groups, each with their own unique cultural customs, including both urban and rural populations such as the Kabyle, Chaoui, Mozabite, and Saharan. As a result, distribution is more precise and more diversified.

According to some researchers, public space in Maghreb countries is inextricably linked to each society and its distinct characteristics, forming a dynamic process marked by constant reconfiguration. As a result, it has a societal dimension with values and representations that go beyond the strictly political domain. Thus, the pluralistic nature of social realities necessitates a multifaceted approach to public spaces (Dris, 2016). Dris (2016) emphasises the subjective forces that govern practices and representations. The appropriation of space can also be associated with "defensible" space, defined as a set of practices and behaviours that define a space as legitimate as a result of a specific appropriation system (Dris, 2016). Citizens who live in

the area contribute a unique perspective and knowledge to the analysis on a daily basis, which improves it.

The study's findings suggest that the terrain in question serves as a hub for social interaction, shaping the daily routines of the district's residents. Residents have claimed and used the unutilised areas for both individual and communal reasons. Residents have formed communal bonds that are an important part of their historical relationship with this area. The findings of this study show discrepancies between customary procedures and the proposed measures. The developers ignored the residents' long-standing customary practices, which had evolved over decades. They restricted access to this area to children under the age of six, despite survey results showing that people of all ages in the district used the space at all hours of the day and night. This indicates a lack of knowledge about the geographical area under consideration, specifically the absence of a diagnosis. Multiple studies investigating the planning of public spaces in Constantine and other Algerian cities under urban improvement programmes have identified a significant issue, namely a lack of diagnosis and citizen information. This issue has been identified as the primary cause of the cessation of development efforts (Bekkouche, 2010; Sidi-Boumediene, 2013; Bouadam, 2013; Bouldjemar, 2019). This refers to the territorial degradation described by Laganier et al. (2002).

The situation is consistent with Arnstein's viewpoint, emphasising the significance of two critical stages in the success of any initiative. The first goal is to inform the public about specific issues and conditions in their community, allowing them to understand the situation and make informed contributions and suggestions. Furthermore, it is critical to ensure active citizen participation in actions and to consider their perspectives, particularly through the partial redistribution of decision-making authority (1969).

Involving residents as a sustainability issue. Arnstein's remarks prompt us to offer a succinct summary of an impressive, efficient, and enduring urban development endeavour initiated by municipal authorities in Constantine's ZHUN du 20 Août through a local government initiative. This ongoing project, which began in 2010, is still going on today. This instance was carried out with the participation of individuals, beginning with the diagnostic stage. A neighbourhood committee oversees the upkeep of the vegetation in front of residential properties in collaboration with a variety of stakeholders, including children, who have been instructed on their responsibilities in this regard. The local committee disseminates information, solicits resident feedback on proposed development initiatives, and facilitates discussions on these topics. Posters and social networks were used in this district, taking into account the intellectual capacity of the local population. Notably, the technical design office and the municipality demonstrated a commitment to recognising and incorporating feedback from residents, as evidenced by Bouadam (2013) and Chetbi and Bouadam (2017).

The consultants proposed the construction of a handball court as a potential indicator. However, the proposal was rejected by the locals due to their concerns about potential disruption and resulting discord. Following careful consideration, the consultants and municipal authorities established a significant public space (Photos 11 and 12) in accordance with community members' preferences. According to Juillet et al. (2015), the ability to observe and the willingness to participate in discourse are critical for achieving a shared understanding of the issues at hand. According to Juillet et al. (2015), incorporating residents' observations, concerns, and aspirations from the project's inception and throughout its development allows all stakeholders

to identify solutions that truly address the community's genuine needs. The success of such efforts is dependent on a number of critical factors, including diagnosis, information, demographic considerations, awareness, and continuous communication. In 2014, the ZHUN 20 Août district was named Constantinople's most environmentally friendly region, as determined by a nationwide competition organised jointly by the General Directorate of National Security and the Ministry of Environment.

Involving citizens in environment-related projects: effective involvement strategies. The critical component that encouraged citizen participation was made available through a variety of methods tailored specifically to this population. Posters, public gatherings organised by village and neighbourhood committees, congregations for Friday prayers, cultural celebrations, conferences held at the municipal headquarters, conversations in neighbourhood cafes, municipal venues, media platforms, and social networks were all examples. As a result, it is critical to establish an information centre capable of meeting a wide range of societal needs. This centre is capable of employing established methods that have been shown to be effective in local contexts. It is necessary to exercise caution when selecting appropriate means that are appropriate for the specific population category impacted by the project.

Furthermore, in order to gain a comprehensive understanding of the local population, a thorough technical and socio-economic assessment of the project's scope is required. This evaluation should include their demographic characteristics, aspirations, challenges, and connection to the area. This understanding enables the selection of appropriate techniques for information distribution, awareness creation, and proposal presentation. These experiences demonstrate the importance of ongoing communication and reflection with residents in order to understand their goals. These goals should be taken into account when making decisions and selecting actions.

- Selecting a language that is comprehensible to the majority of people is essential in order to bridge the gap between experts and local users. Certain populations may encounter difficulties in understanding technical terminology. In order to achieve optimal effectiveness, it is crucial that the language utilised by individuals involved in participatory processes is unambiguous and specifically adapted to the demographic and educational attributes of the population.
- The university aims to serve society by engaging academics, such as sociologists, psychologists, architects, and town planners, in training, raising awareness, and providing support to public actors and the population.
- Foster a sense of confidence and reliability between the populace and the governing authorities. In order to motivate citizens to engage and become part of the project, they must have confidence in the significance of their opinions and the assurance that their suggestions will be duly acknowledged.
- The establishment of a steering committee comprising individuals from diverse sectors and representatives of the local community. In order to effectively promote projects and gather feedback from citizens in the digital age, it is imperative to utilise the official website of each town hall or establish connections through social media platforms. A door-to-door survey can be beneficial when deemed necessary, particularly when the project is focused on a local community level.

However, despite being mentioned in multiple legislative documents, public engagement encounters difficulties due to

the lack of specific guidelines for its implementation. Hence, we firmly assert that enacting legislation concerning public engagement and participatory activities in Algeria is indispensable.

Conclusion

This study highlighted the crucial significance of resident engagement in determining the outcome of public space development in urban improvement programmes in Algerian cities. In recent years, there have been endeavours to develop strategies for engaging residents successfully and effectively. The term “participation” encompasses a range of practices and strategies that vary based on the objectives, available resources, intended audiences, and geographical locations. The text refers to the dialectical interplay between the expertise of professionals and the firsthand experiences of residents. The selection of Constantine (Ain Smara), located in eastern Algeria, was made to illustrate this issue. The results of the preliminary survey revealed that the lack of essential information for participatory processes resulted in a scarcity of commitment, ultimately leading to complete disengagement.

Moreover, due to the lack of a mutual diagnosis, the project failed to correspond with the practices of the residents and neglected to consider their aspirations in the selection of actions. As a result, the project was not approved and was even subjected to vandalism by the residents. For the success of such initiatives, it is essential to have local expertise, active involvement, and continuous oversight, both during the project’s planning stage and after its implementation. The second example, initiated and financed by the district’s residents, has achieved success and showcases a commendable level of engagement. The proposed developments successfully garnered the trust, attention, and cooperation of the residents by implementing oversight from a resident architect, employing appropriate tools based on accurate information, actively listening, and maintaining continuous communication.

However, as the infrastructure started to decay and crumble, residents lost their motivation to maintain the facilities without the presence of the person who initially initiated the efforts. The efficacy of participatory management and the project’s long-term sustainability is frequently scrutinised in this type of endeavour. This situation emphasises the significance of including neighbourhood committees, village committees, local associations, municipal authorities, and urban sector experts (managers and technicians) in supervising resident involvement to ensure the enduring viability of facility maintenance. The organisation of public spaces in Algerian cities is based on the urban improvement initiative, which requires collaborative efforts from all parties involved at every level. The effectiveness and enduring viability of the initiatives have been demonstrated through multiple individual instances (ZHUN of 20 Août) and conventional modes of involvement deeply rooted in Algerian society (Halka, Touiza, and Tajmait). A high level of engagement was achieved by employing a diverse array of effective strategies.

These examples clearly demonstrate the importance of knowledge, efficient communication, active consultation, openness to ideas, incorporating the desires of residents from the beginning to the end of a project, collaborating with a diverse team, and other factors that promote the success and long-term viability of a project. Additionally, they highlight the possibility of a mutually beneficial partnership between governmental entities and individuals. Unfortunately, these methods have not been systematised, standardised, or incorporated as flexible mechanisms that are suitable for the diverse Algerian context. The identification of the most pertinent mechanisms can be achieved by combining theoretical concepts with empirical data specific to the region. In order to obtain implementation methods that are

specifically suited to the Algerian context, the study proposes conducting a thorough analysis of these local participation practices. This is analogous to the proposition that legislation regarding citizen engagement and participatory activities in Algeria governs these approaches.

Data availability

The datasets generated and/or analysed as part of this study are available from the corresponding author on request.

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Author contributions

CW wrote and conducted the field survey, BR developed the project and worked on analysing the results and writing the manuscript.

Competing interests

The authors have no conflicts of interest to declare. All co-authors have seen and agree with the contents of the manuscript and there is no financial interest to report. We certify that the submission is original work and is not under review at any other publication.

Ethical approval

At present, there is no institution or committee in Algeria that approves that studies involving human participation be performed in accordance with an ethical standard, nevertheless, this study was performed in accordance with the principles of ethical standards.

Informed consent

All participants and/or their legal guardians were informed in detail about this study and their informed consent was obtained. Informed consent was obtained by CW.

Additional information

Supplementary information The online version contains supplementary material available at <https://doi.org/10.1057/s41599-023-02557-2>.

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