

Urban Heritage in the Sustainable Development Dynamic Case Study: Medea In Algeria

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Abstract

Medea, one of Algeria's historic cities, boasts a rich architectural and urban heritage, reflecting various eras and cultural influences. The preservation and enhancement of this heritage are essential to protect the city's history, culture and identity, while promoting sustainable development that respects the environment. The aim of this article is to identify and assess the extent to which Medea's heritage is aligned with the requirements of sustainable development. We adopt an indicator-based analysis framework to address the main challenges and issues involved in measuring the contribution of urban heritage to sustainable development. Applying a multi-criteria method to the case of Medea enables us to carry out an in-depth assessment of its impact, considering its diversity and complexity. The results show that, despite certain shortcomings, Medea's heritage has significant potential to contribute to the city's sustainable development, provided that appropriate management and conservation measures are put in place.

Keywords:

Heritage, sustainable development, urban heritage, multi-criteria analysis

Introduction

Preserving urban heritage is essential, as it represents a shared legacy that must be passed on to future generations. Preserving and restoring historic buildings, architectural sites and old neighborhoods maintains a link with the past, celebrates cultural diversity and stimulates local economic development. (Battaglini, E.2020).

Nevertheless, protecting urban heritage presents challenges: urban pressure, expansion, property speculation and socio-economic transformations can threaten its integrity. Robust policies are therefore essential to manage and preserve urban heritage. These policies must involve local authorities, communities, experts and relevant stakeholders to harmonize urban development with the conservation of a city's identity and history (Guzman, Paloma, Ana R. Pereira Roders, and Bernard Colenbrander. 2018).

On the other hand, the concept of sustainable development aims to reconcile society's current needs with the preservation of resources and ecological balance for future generations. It is based on three interdependent pillars: the environmental aspect, the social dimension and the economic component. Sustainable development encourages policies and practices that promote environmental sustainability, social inclusion, economic equity and democratic participation in decision-making (Rudd A, Simon D, Cardama M, Birch EL, Revi A. 2018).

When we approach urban heritage in the context of sustainable development, we explore how to value and preserve this heritage while ensuring balanced economic and social progress that aligns with environmental management. This approach seeks sustainable solutions for the conservation of historic buildings, the rehabilitation of old districts and the integration of heritage into urban planning (Mohanty, M.2020).

The importance of urban heritage conservation extends beyond the mere preservation of structures and traditions; it is intrinsically linked to the vitality and sustainability of cities. The 2011 UNESCO Recommendation on the Historic Urban Landscape emphasizes that urban heritage, including both its tangible and intangible components, is a key resource for improving the quality of life in urban areas, thereby fostering economic development and social cohesion in a changing global environment¹. This holistic approach recognizes that conservation must become a strategy for achieving a balance between urban growth and quality of life on a sustainable basis(UNESCO.2011).

Moreover, sustainable urban development is an essential pillar for the future of cities. It's not just about learning from traditional building and development techniques, but also about the intelligent use of these techniques.

Thus, urban heritage conservation and sustainable development are interconnected concepts that require an integrated vision and concerted action to ensure that cities remain places of culture, history and harmonious progress for all generations to come.

- 1. Urban Heritage and Sustainable Development :** How to reconcile the preservation of cultural heritage with the imperatives of sustainable development in a rapidly changing world ? Urban heritage and sustainable development are closely intertwined and mutually reinforcing. Here are several points that illustrate their relationship :

Resource conservation: Preserving urban heritage is synonymous with conserving natural resources. The rehabilitation of existing buildings, by avoiding the construction of new infrastructure, limits excessive consumption of materials and energy, thus reducing construction waste and the associated carbon emissions. (Battaglini, E. ,2020).

Promotion of Environmental Sustainability: Urban heritage can play a role in promoting environmental sustainability. Well-designed historical buildings constructed with sustainable materials can offer superior energy efficiency compared to new construction (Rybczynski, 2013). Preserving green spaces, parks, and historic gardens contributes to air quality, thermal regulation, and urban biodiversity (Russo et al., 2016).

Strengthening Social Cohesion: Urban heritage is a key element of the cultural and social identity of a community. By preserving historic neighborhoods, monuments, and cultural sites, a sense of belonging and pride among residents is strengthened (UNESCO, 2000). This fosters social cohesion, well-being, and residents' quality of life, all of which are important aspects of sustainable development.

Economic development: Historical sites and old neighborhoods often attract tourists, generating income and jobs in tourism, hospitality, dining, craftsmanship, and related sectors (ICOMOS, 2011). Preserving heritage also enables the development of economic activities based on the cultural heritage and traditional craftsmanship (Duxbury et al., 2017).

Community involvement: Preserving urban heritage often requires active community involvement. Involving residents, experts and stakeholders in heritage planning and management fosters civic engagement, social responsibility and participatory governance (Rudd A, Simon D, Cardama M, Birch EL, Revi A.2018)

These Points emphasize the interplay between urban heritage and sustainable development, demonstrating how the preservation and promotion of heritage can contribute to a more sustainable and resilient urban environment.

2. MEDEA : case study :

2.1. Présentation of Medea

Medea is a city in the north of Algeria, near the Sahara border, and occupies a central position. It serves as an intersection of two important axes, RN1 from north to south and RN18 from east to west. It constitutes a crucial communication hub between the north and the south.

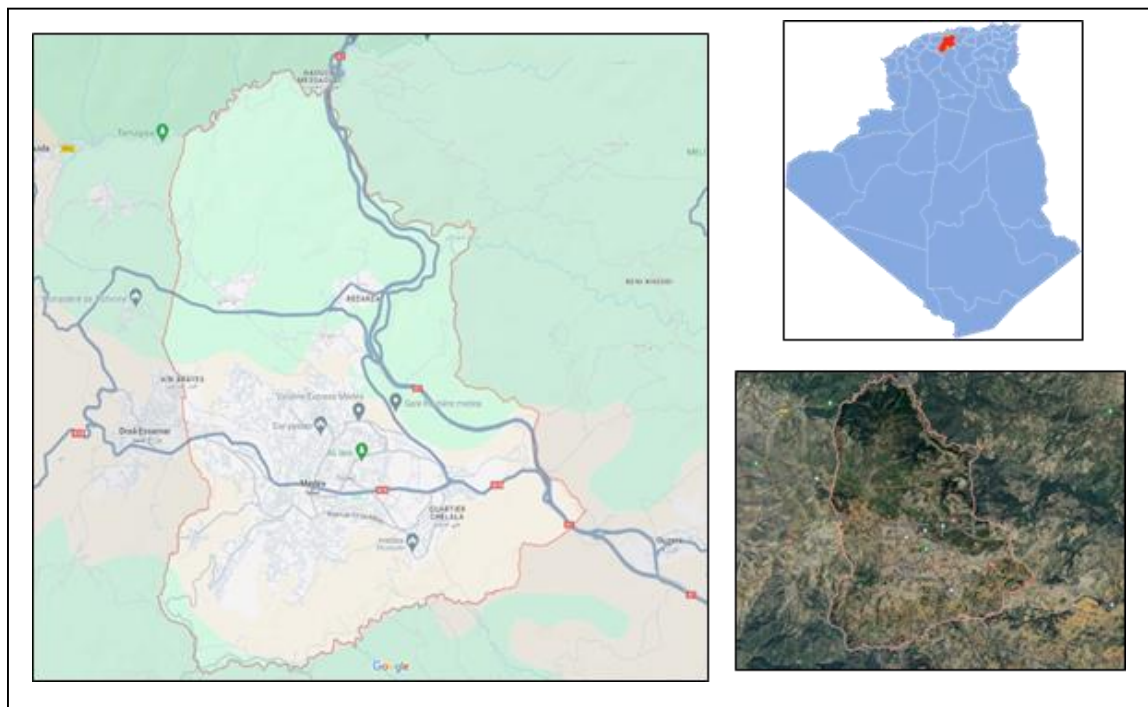


Figure 1 : location of Medea

2.2. Heritage potentials of the city of Medea

In the identification of heritage elements, we have taken into consideration the elements that have endured over time and have withstood changes. It was only after the 1990s that awareness of the historical center of the city of Medea began to emerge albeit timidly. We note that the main actions were individual, such as the restoration and rehabilitation work on Dar El Amir, the minaret El Ahmar and the mausoleum of Sidi Berkani.

The identification of heritage elements was done based on graphic, cartographic and iconographic documents. All preexisting elements are identified on the cadastral plan of 1840 and that of 1861, superimposed with the city of Medea's master plan and urban planning. these elements are classified by category (Tab 1):

Tab 1: Heritage categories of Medea

Heritage categories	
Fortifications	The enclosure and the gates
Places of worship	The al ahmar mosque hanafite mosque ;the synagogue of medea, the coranic school of sidi slimane ; the Mausoleum of cheikh el berkani , the church of the square.
Les hammams	Hammam Sidi Slimane, hammam Benkiar ,hammam Bengarmit.
The publics buildings	The twon hall, the post office, the city hall.
The mains residences	house of Emir Abdelkader, house of Amir Khaled
The squares	Weapons square, freedom square, republic square, sidi sahraoui square
The streets	Street of brothers fakhar, the cardo -decumanus.

The various interventions on the architectural and urban heritage of the historical center of the city of Medea have caused transformations in the urban fabric, leading to its alteration and particularly the degradation of the heritage. These actions have also resulted in accessibility issues and the demolition of certain plots. This historical center continues to suffer from neglect and decay, thus putting its monuments at risk of disappearance due to a lack of proper care. It is worth noting that numerous studies have been conducted with the perspective of classifying it as a national heritage. This led to the initiation of a classification project for this center in 2014.

3. Methodology for assessing Medea's urban heritage for sustainable development

The adoption of sustainable development principles in urban heritage management has become increasingly important in recent years. Authorities, in collaboration with their partners, have progressively integrated these principles into their practices and policies over the last two decades.

A significant proportion of publications have focused on debates concerning methods and tools for assessing the contribution of built, natural and cultural heritage to improving the environmental, social and economic performance of cities. These performances are considered to be the main indicators of their sustainable development.

Within this framework, various analytical frameworks, assessment procedures and tools have been proposed by researchers such as Tweed and Sutherland (2007), Judson and Iyer-Raniga (2010), and Roders and Van Oers (2014).

Georges A. Tanguay's synthesis "Sustainable development indicators in urban heritage assessment" focuses on the identification of sustainable development indicators in urban heritage assessment. The study analyzes 25 cases that discuss and propose sustainability indicators for assessing urban heritage conservation. The analysis reveals a lack of consensus on the quantity, frequency of use and type of indicators used, suggesting the need to develop a common grid of key indicators.

Tanguay proposes a strategy for selecting key indicators that broadly cover the environmental, economic and social dimensions of sustainable development, as well as the main issues related to urban heritage conservation. The relevance of these indicators is recognized by experts and supported by the case studies reviewed (Tanguay, G. A., Berthold, E., & Rajaonson, J. (2014). This research highlights the importance of a strategic and coherent approach in the choice of indicators to assess and guide the sustainable conservation of urban heritage, taking into account the multiple facets of sustainable development.

For the purposes of this study, we will draw on an indicator analysis framework developed by Georges A. Tanguay (2014). This framework aims to explore the main challenges and issues involved in measuring the contribution of urban heritage to the sustainable development of cities. . In addition, he has developed a series of indicators specifically tailored to the unique characteristics of urban heritage. This approach enables an in-depth assessment of the impact of heritage on sustainable development, while taking into account its diversity and complexity. We applied the five families of indicators (see Table 2) proposed by Georges A. Tanguay (2014).

Tab 2: Indicator analysis framework

Characterization of object

Attachment to place
 Traditional and perceived value
 Artistic and harmonious value
 Manufacturing, insulation and adaptability

Protection

Viability of recycling existing materials
Authenticity
Integrity
Spatial compatibility

Improvement

Environmental concerns
 Promoting knowledge of historical and cultural heritage
 Improving quality of life
 Benefits associated with reuse or development

Use and impact

Interest and involvement of residents and visitors in conservation

Functional use

Attracting investment and tourists

Increased urban density

Policy and regulation

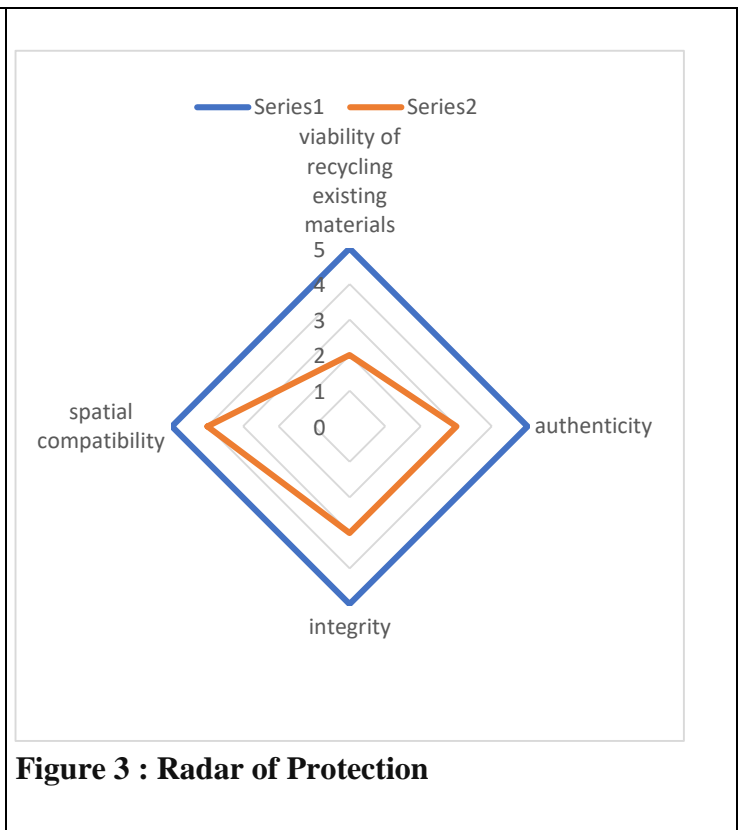
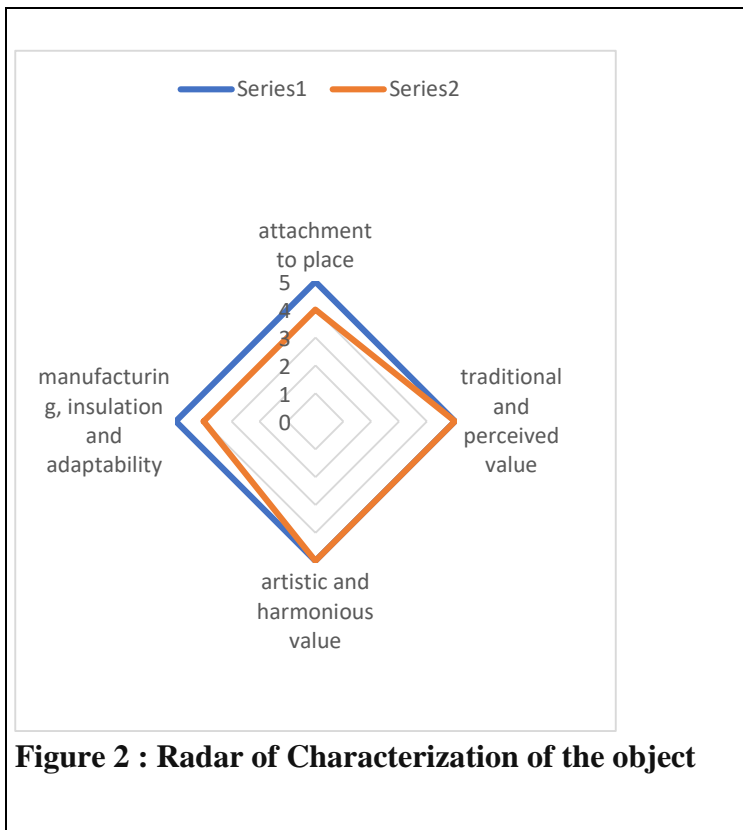
Residents' perception that their opinions are taken into consideration

Adequate protection and management system

Compliance with building regulations and standards

Inclusiveness and partnership among stakeholders

Interviews and questionnaires were used to survey local stakeholders, including representatives of the Culture and Urban Planning, as well as various local associations, travel agencies and the town's craft center. Visitors and residents were also approached via questionnaires.



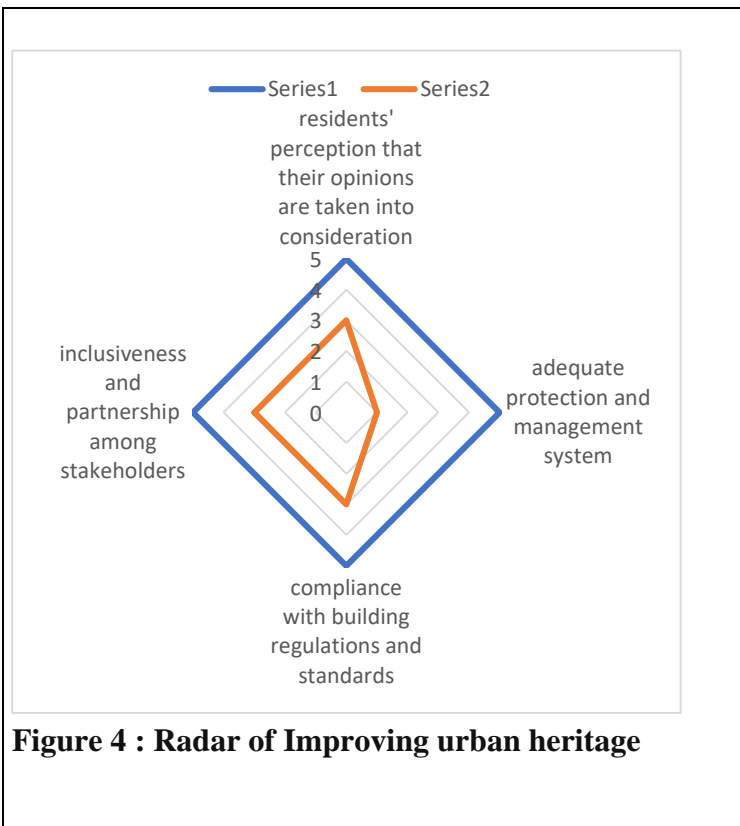


Figure 4 : Radar of Improving urban heritage

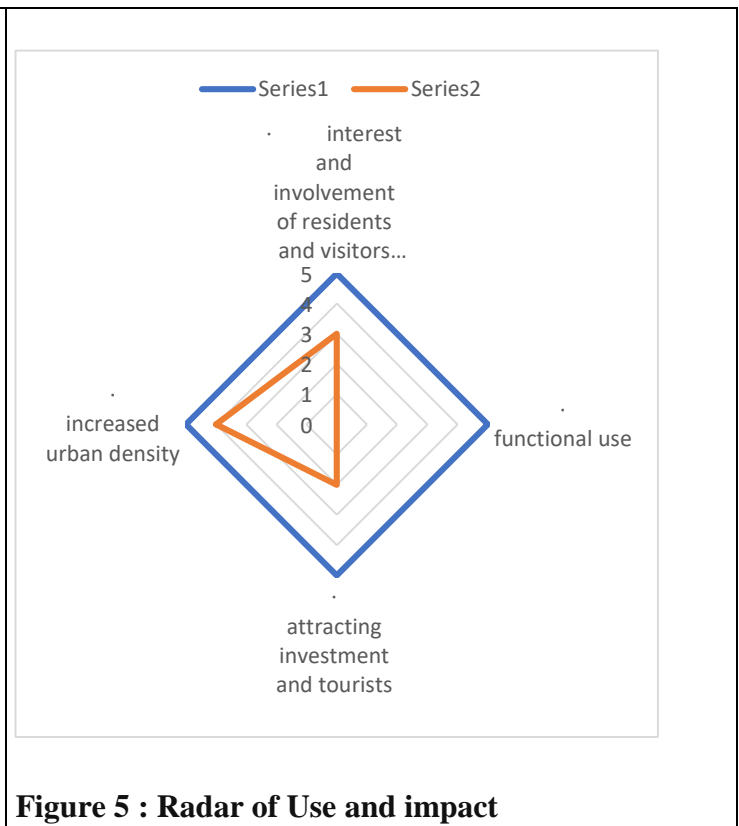


Figure 5 : Radar of Use and impact

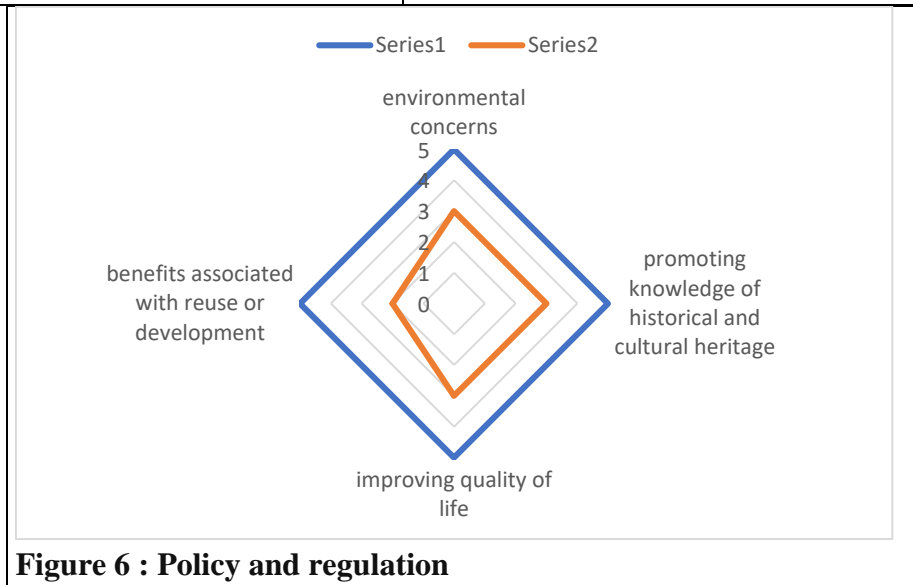


Figure 6 : Policy and regulation

4. DISCUSSION OF SURVEY RESULTS :

4.1. Characterization of the object

The study carried out with various officials confirms that Medea’s urban heritage is imbued with profound meanings and varied artistic dimensions. Its many facets merit in-depth exploration, and its structure demonstrates remarkable adaptability to different contexts.

4.2. Protection

In terms of preservation, the majority of representatives interviewed advocate safeguarding Medea’s urban heritage. This approach aims to ensure its durability and sustainability. However, it is interesting to note that the question of recycling existing materials does not arouse much interest among those interviewed. Recycling and reuse in other products are not considered priorities, although this does not rule out the use of certain spaces despite their dilapidated state.

4.3. Improving urban heritage

Some managers emphasize the need to enhance this urban heritage. They believe that highlighting it could raise awareness of its importance. Exhibitions, publications or events could help to share its history and preserve its memory. What's more, improving the condition of this heritage could also enhance residents' quality of life. However, the survey results concerning the benefits associated with the reuse or development of Medea’s urban heritage are not very positive.

4.4. Use and impact of urban heritage

The use and impact of urban heritage are essential aspects to be taken into account for its preservation and harmonious integration into the environment. The survey reveals that event programming and awareness campaigns focus mainly on intangible heritage. However, when it comes to tourist appeal and the functional use of this heritage, the results are unfavorable.

4.5. Policy and regulation

Analysis of the survey results reveals some interesting trends: on the one hand, residents are actively involved in certain heritage-related regulations, while on the other hand, surveillance and security protocols focus mainly on public facilities. At the same time, a plan to safeguard and enhance urban heritage is currently under study.

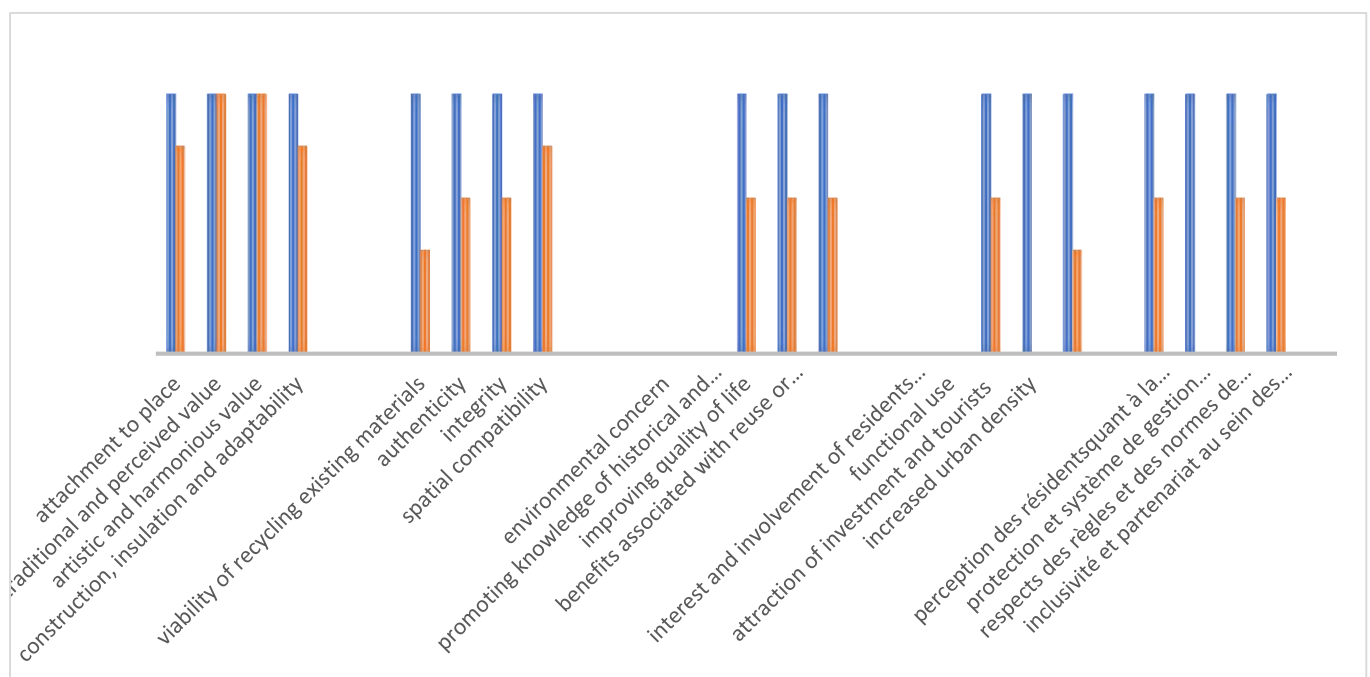


Figure 7: Radar general of assessment of Medea's urban heritage

5. RECOMMENDATIONS: heritage Management in the Context of Sustainable Development in Medea

Urban heritage management is of paramount importance in the context of sustainable development. It contributes to preserving the identity, history, and culture of a city, maintaining a connection with the past for current and future generations. By promoting the rehabilitation and reuse of existing buildings, this approach encourages the judicious use of resources, minimizing the consumption of materials, energy, and water, and reducing the city's ecological footprint.

Furthermore, urban heritage management of Medea can play a crucial role in promoting environmental sustainability. By preserving historic buildings, renovations can incorporate eco-friendly practices and green technologies, resulting in reduced greenhouse gas emissions, energy consumption, and waste production (UNESCO, 2009).

The impact also extends to local development. Old neighborhoods, monuments, and historic sites often attract tourists, generating income and employment opportunities in tourism, hospitality, catering, and craftsmanship (ICOMOS, 2011). Moreover, heritage preservation can support the development of economic activities based on the cultural heritage and traditional skills (Duxbury et al., 2017).

There are several approaches to sustainable urban heritage management. Here are some key approaches:

1. Inventory and Assessment: This approach involves conducting a comprehensive inventory of urban heritage, identifying buildings, sites, and neighborhoods with historical, cultural, or architectural value. Subsequently, an assessment is carried out to understand the conservation status, heritage value, and specific management needs of each element.

Integrated Planning: An integrated planning approach involves integrating urban heritage into urban planning and development processes. This means considering heritage features when developing land-use plans, master plans, or urban development strategies. It's essential to establish connections between heritage preservation and other sustainable development goals, such as environmental sustainability, social cohesion, and economic activity.

Conservation and Rehabilitation: The conservation and rehabilitation approach aim to preserve urban heritage elements by maintaining their integrity and historical value while adapting them to contemporary needs. This may involve restoring historic buildings, revitalizing old neighborhoods, adaptively reusing existing structures, and preserving unique architectural and cultural characteristics.

Community Participation: Community participation is essential for effective and sustainable urban heritage management. Involving residents, local groups, experts, and stakeholders in decision-making and management processes helps consider the needs and aspirations of local communities, strengthen awareness and civic engagement, and promote collective ownership of heritage (Avrami et al., 2000).

Awareness and Education: An awareness and education approach involve informing and sensitizing the population about the importance of urban heritage and encouraging active participation in its preservation. This can be achieved through awareness campaigns, educational programs, guided tours, cultural events, and collaborations with schools and universities.

Collaboration and partnerships Sustainable urban heritage management often requires close collaboration among various stakeholders, such as local authorities, preservation organizations, heritage experts, community associations, and public and private sectors. Establishing strong partnerships and coordination mechanisms can facilitate the implementation of integrated management strategies and ensure efficient resource utilization.

By adopting these approaches, Medea can effectively integrate urban heritage management into their sustainable development strategies, thereby preserving cultural identity, enhancing the quality of life for residents, and fostering a sustainable urban environment.

CONCLUSION

Managing urban heritage as part of sustainable development is more than just preservation; it's a dynamic process with far-reaching implications for a city's identity, environment and prosperity. By adopting an integrated approach that emphasizes the conservation of historical, cultural and architectural treasures, cities such as Medea benefit in many ways.

Preserving urban heritage acts as an intergenerational bridge, guaranteeing the continuity of the city's legacy. At the same time, it offers opportunities to reduce resource consumption and minimize environmental impacts, aligning with broader sustainability goals.

Medea's commitment to sustainable urban heritage management can stimulate economic growth through tourism, job creation and the revitalization of local businesses. In addition, it strengthens social cohesion, improves quality of life and encourages active community participation in decision-making processes.

By integrating these principles and incorporating urban heritage management into their sustainable development strategies, cities like Medea are paving the way towards resilient, culturally enriched and ecologically responsible urban environments.

The enhancement of Medea's urban heritage must be part of a sustainable development trajectory, generating a positive economic impact by attracting investment for the restoration and maintenance of historic sites. This trajectory supports the local economy and fosters social inclusion, enabling all citizens to reconnect with the history and culture of their city, while stimulating volunteerism and civic engagement. On the environmental front, this sustainable development trajectory advocates the adoption of environmentally-friendly construction and renovation practices, helping to reduce the city's carbon footprint. Culturally, it strengthens education and the dissemination of knowledge by integrating heritage into teaching programs and raising awareness of its importance among young people, thus ensuring sustainable and inclusive urban development.

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