

Sustainable tourism through architectural hybridization

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Abstract. In this paper, hybridization is proposed as an alternative approach to sustainable tourism development in Morocco's southeastern cities. Hybridization refers to the integration of multiple elements, such as traditional and modern, to create a new synthesis that incorporates the aspects required from a modern building. The evolutionary approach adopted helps to balance between short-term requirements and long-term sustainability, while also preserving cultural heritage and promoting innovation. By implementing sustainable and culturally sensitive strategies, a positive future can be secured for architectural and urban systems like Ksours and Kasbahs.

1 Introduction

"Between one or the other, I prefer both, to white or black, white and black, and sometimes gray." This quote by Venturi [1] suggests that when presented with a choice between two options, one should consider combining the two and finding a middle ground. This can result in a more nuanced and complex solution that incorporates the best of both options.

The adaptation of older architectural and urban systems, such as Ksours and Kasbahs, to contemporary programs is challenging, due to the complexity of these systems, and the difficulty with integrating new elements and creating new models. Reimagining and reusing existing buildings is a relevant topic in sustainable architecture and urban design, as this allows to preserve cultural heritage, while also adapting to contemporary needs and sustainable practices, and minimizing the carbon emissions and the environmental impact associated with new constructions [2].

As these systems were originally constructed with sustainability in mind, it is crucial to shift our mindset and approach towards preserving this legacy. Rather than solely focusing on new constructions, emphasis should be placed on retrofitting existing structures to improve their energy efficiency and adaptability to contemporary needs.

It is difficult to incorporate a five or four-star hotel program into a Kasbah due to a number of limitations. Kasbahs frequently lack the modern conveniences and comfort required for high-end functional hotels. For instance, the rooms may be

small and facilities such as pools, spas, and restaurants cannot be easily integrated.

The Kasbah's substantial cultural and heritage significance, as an ancient building that is protected by local and national regulations, may restrict structural modifications needed to adapt to a modern program. Due to these considerations, integrating a five- or four-star hotel program into a Kasbah may be challenging, if not impossible. As a result, a different strategy may be needed to create a successful and sustainable tourism industry for these regions [3].

This research contributes to the ongoing discourse on sustainable architectural design and offers valuable recommendations for preserving cultural heritage and fostering sustainable tourism. The novelty of this work lies in its pioneering approach to sustainable tourism development through architectural hybridization, specifically suited to the unique context of Morocco's southeastern cities. While previous studies have explored various strategies for heritage preservation or modern architectural interventions, the concept of architectural hybridization as a tool to balance tradition and innovation in this specific region is largely unexplored. By combining the rich cultural heritage of Ksours and Kasbahs with contemporary design principles, this paper introduces a new direction that breaks away from conventional preservation methods and sets a precedent for sustainable development in culturally significant areas. This novel approach challenges conventional methods and opens up opportunities for further research and practical applications in the field of architectural design and cultural heritage

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conservation. Moreover, this paper provides practical insights and case studies that demonstrate the feasibility and effectiveness of architectural hybridization in Morocco's southeastern cities. By showcasing successful examples of architectural interventions that combine heritage structures with modern functionalities, it presents tangible evidence of the potential benefits of this approach.

2 Rethinking the Viability of the Classical Approach

Kasbahs and Ksours are respectively buildings and urban structures that have historical, cultural, and architectural significance. These structures are integral parts of the southeastern cities of Morocco and their regions' identity, and can provide valuable insight into the history and culture of the area. However, many of these buildings are under threat due to neglect, decay, and redevelopment pressures.

It can be argued that the classical approach of protecting historical heritage is not always sustainable. While traditional conservation methods such as restoration, preservation, and museumification can help to protect historic buildings, they often prioritize historical authenticity over sustainability and practicality [4].

The approach of solely preserving cultural heritage may neglect crucial sustainability factors like energy efficiency, accessibility, and flexibility. High costs associated with traditional conservation techniques can also hinder the implementation of sustainable solutions. Therefore, it is important to explore alternative strategies that balance cultural heritage preservation with practical and digital transitions in modern architecture, considering sustainability as a crucial component. Oman's historical forts serve as a good example of cultural museums that have been restored using a classical approach (Fig.1) [5], but missed the opportunity to repurpose them sustainably as functional hotels or modern community centers, highlighting the need for alternative strategies that balance preservation with practical and digital transitions [6].

The classical approach's perceived irrelevance to modern issues is a major criticism, as it is accused of being overly fixated on the past and ignoring the complexities of the present. With the pressing need to address climate change and the growing importance of building technology, there is a growing demand for innovative design strategies that can address these contemporary challenges. Given that the traditional approach relies heavily on restoration techniques that may not be compatible with the modern comfort requirements of a building, new methodologies must

be developed to integrate sustainability and innovation into the design process.

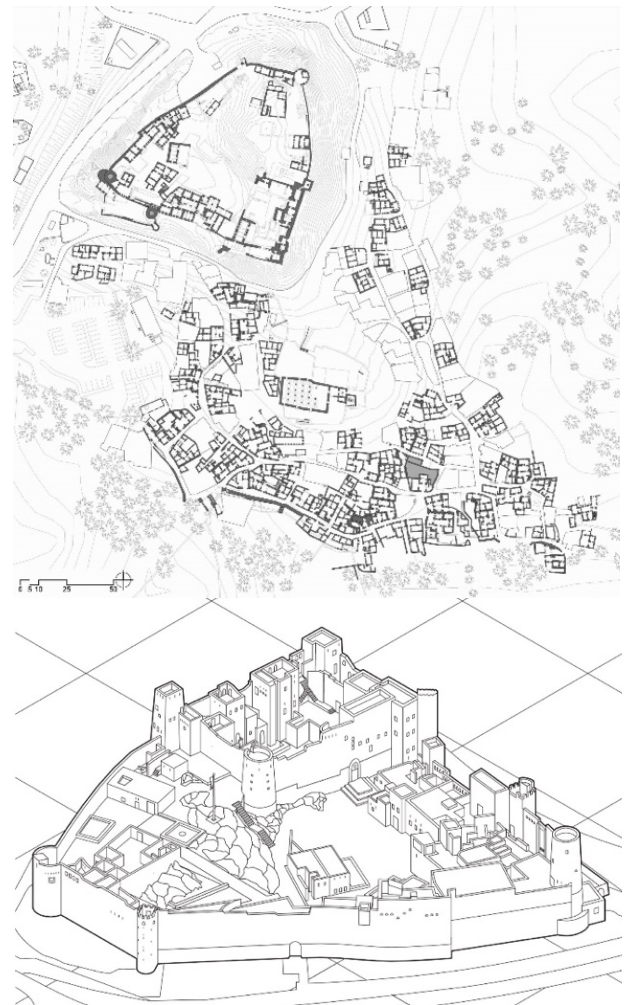


Fig. 1. Bahla Fort and Oasis World Heritage Site [5].

3 Celebrating Local Flavor, Pushing Creative Boundaries: The Vernacular Paradox

The idea of the vernacular paradox refers to the tension between celebrating and preserving the local popular culture and tradition, while at the same time pushing creative boundaries and experimenting with new forms of artistic expression. This paradoxical tension is particularly relevant in contemporary architecture and design practices that seek to engage with local communities and traditions while innovating and exploring new possibilities [7].

On the one hand, the vernacular style can serve as an authentic representation of local culture and tradition, providing a valuable source of inspiration. Utilizing vernacular techniques in new designs allows for the preservation of a location's distinctive characteristics and cultural heritage, while also addressing modern-day issues.

On the other hand, moving away from the vernacular can enable architects and urban planners to experiment with new principles, forms, techniques, and materials, which can result in the creation of innovative and stimulating work that challenges the conventional boundaries of creativity. Through this exploration, they can also create work that is relevant and significant to contemporary audiences, while also contributing to the ongoing advancement of practices. However, finding a balance between innovation and preservation is essential for ensuring the sustainability of local cultural heritage and tradition. This balance requires designers to engage deeply with the communities and traditions they seek to celebrate and preserve, while also being open to new possibilities and approaches.

The work of Abdeslam Faraoui and Patrice de Mazières provides an excellent example of the vernacular paradox in action [8]. While their hotel ideas draw on the vernacular architecture of ksours and Kasbahs, they also push the boundaries of tradition by exploring new forms and materials. By doing so, they create work that is both rooted in local tradition and relevant to contemporary audiences, while also contributing to the ongoing evolution of needs (Fig. 2).

However, Abdeslam Faraoui and Patrice de Mazières developed their hotel ideas independently of the sources that served as their inspiration. Despite the ongoing demolition of Ksours and Kasbahs, the original models could have been used as a starting point. The buildings demonstrate the necessary particularism and authenticity, but the work can be further pushed towards a model that starts from the existing and composes with modernity and research.



Fig. 2. Hotel Rose Mgouna in El Kelaa M'Gouna by Abdeslam Faraoui and Patrice de Mazières.

4 The hybrid approach

One of the most effective approaches to innovation is hybridization, which enables the harmonious union of previously disparate elements [9]. This principle enables the creation of a dynamic environment, where unexpected connections and novel ideas can emerge [10]. In the context of the Kasbah, where space is often limited, the implementation of

hybridization can lead to unique and exciting experiences that adhere to established norms and standards.

This approach stands out for its clever utilization of limitations, which are turned into assets and become the fundamental basis of producing an exceptional tourist experience that blends authenticity, architectural innovation, and a seamless digital transition. Leveraging local heritage components allows for innovative utilization, resulting in benefits that extend beyond the confines of a single initiative.

To establish new and sustainable systems that combine economic growth, environmental protection, and cultural preservation, hybridization entails combining traditional and modern aspects. The goal of this method is to apply modern building techniques that focus on the user's comfort, in order to improve the buildings efficiency, resource management, and service quality while retaining traditional and cultural values.

To meet the demands of consumers and industry standards, it is essential to take a cohesive and connected approach that combines design and architectural research, incorporating modern components. This intersectional approach can ensure that new projects not only meet the practical needs of users but also reflect the latest developments in technology and design. By combining research and design, architects can create innovative solutions that are both functional and aesthetically pleasing.

Fig. 3 details a project by the authors, which consists of an extension and modernization of the historical Kasbah Amridil into a hotel. A hybrid approach was adopted, where the ruins are extended and rebuilt according to modern standards to house the majority of the rooms. The historical Kasbah is conserved and repurposed as an indoor/outdoor museum and cultural center. The modernization of the hotel was carried out while respecting the local vernacular architecture and the use of local materials. Sustainability principles are integrated in the design, such as passive cooling and the use of solar energy. Overall, this project demonstrates how a hybrid approach can be used to modernize and extend historical structures while preserving their cultural and architectural heritage.

To achieve a successful integration of modernity and tradition in the hotel design, several key steps must be taken. Firstly, an in-depth analysis of the existing structure of the Kasbah is crucial to identify opportunities for integration with modern elements. This analysis should take into account the historical and cultural significance of the Kasbah and its components. Secondly, the transition between the

traditional and modern parts of the hotel should be carefully considered, and design elements such as local materials, colors, and patterns should be used to create a harmonious and cohesive overall look.

It is also important to consider the overall guest experience of the hotel. Rooms and common areas must be designed to meet the needs of guests and provide a comfortable and pleasant environment. In this context, it is important to strike a balance between preserving the authenticity of the existing structure and introducing modern and digital standards.

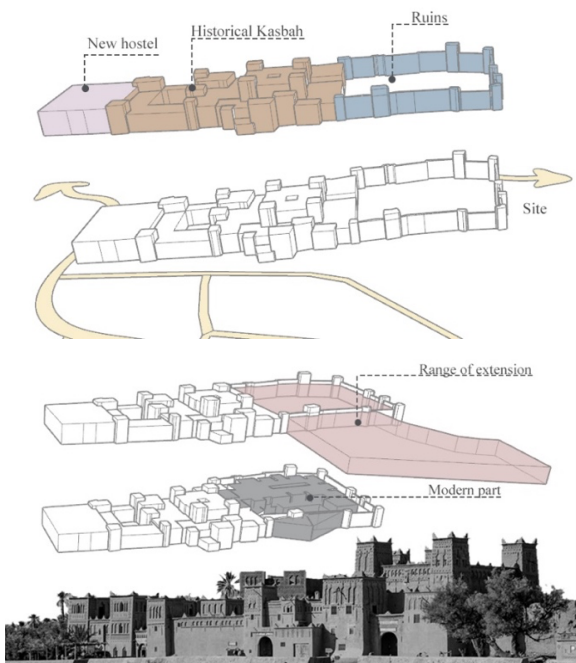


Fig. 3. A project by the authors focused on the hybridization of Kasbah Amridil in Skoura Palm grove in Ouarzazate Province, into a five-star hotel.

5 Combining local and standard

Hybridization can be approached through various interrelated methods. For historical structures such as Kasbahs and Ksours, the integration of new forms with preexisting ones can generate innovative new functions that separate from the original use of the building. This leads to the development of novel architectural concepts that are well-suited for tourism.

By merging two or more distinct types of structures, the objective is to create a distinctive product that offers a variety of opportunities and experiences, and ensures a smooth transition from traditional to modern [11].

Adaptive reuse, which is the process of converting existing buildings for a new function, is a highly effective method to combine local and standard

architecture. By renovating and adapting the existing structure, it is possible to integrate it into the new program while retaining its unique local charm, and its vernacular architecture reflecting local culture, climate and materials.

The hybrid design integrates standard and vernacular architectures to create a building that is unique, contextually appropriate, and sustainable. The hybrid model involves the combination of elements of different natures to propose a new approach to innovating tourist accommodation products. This process of hybridization allows for the creation of new or different elements, resulting in an innovative and adaptable design.

Our research emphasizes the importance of integrating innovative building techniques with historical structures to achieve synergy between tourism strategies and the product. By combining classical ways of doing things with modern production, a harmonious and coherent model can be created that meets the functional needs of the building and its environment. The goal is to establish links between the existing and the modern through practical work on specific elements, taking into account climatic and cultural conditions. This approach can address dysfunctions and improve the overall functioning of the building, resulting in a unique and sustainable product that benefits both tourists and the local community.

6 Conclusion

In conclusion, as the demand for modernization and sustainability grows, adapting architectural and urban structures, such as Ksours and Kasbahs, to meet present-day needs can be challenging. This essay advocates for striking a balance between preserving tradition and embracing innovation, as a crucial factor in ensuring the sustainability of local cultural heritage. The discussion highlights the difficulties of conserving the local while exploring new creative opportunities through hybridization. The paper stresses the importance of reevaluating traditional conservation techniques to incorporate sustainability and innovation into the design process, requiring the establishment of new methodologies. Overall, the essay highlights the importance of adopting a holistic approach that considers both the local and the modern in creating harmonious and sustainable solutions for the future.

Future research should focus on providing empirical evidence and case studies to support the proposed approaches, developing practical frameworks and methodologies for integrating tradition, sustainability, and innovation in design, and

exploring other dimensions of sustainability. Addressing these research gaps will contribute to the advancement of knowledge in the field and provide practical insights for creating harmonious and sustainable solutions for architectural and urban structures in the context of modernization and sustainability.

References

1. R. Venturi, *Complexity and contradiction in architecture*, 2d ed. in *The Museum of Modern Art papers on architecture*. New York : Boston (1977)
2. C. Cournoyer, *Le paysage de l'oasis dans le sud du Maroc*, presented in the Workshop de la CUPEUM Marrakech, Université de Montréal, (2004)
3. M. Boukherouk, *La mise en tourisme d'un espace oasien fragile et marginalisé, la Région du Tafilalet dans le Sud-est marocain : Enjeux, freins et perspectives*, PhD Thesis, Clermont-Ferrand 2, (2012)
4. M. Sadiki, M. Essami, A. Bouaouinate, *J. Polit. Orbits*, **3**, 2 (2019)
5. S. Bandyopadhyay, G. Quattrone, M. Goffriller, M. Habib Reza, *Documentation and heritage management plan for Bahla: Harat Al-Aqr*. Muscat: Ministry of Heritage and Culture, (2014)
6. J. Mark Schuster, *Beyond Privatization*, in *Privatization and Culture*, Boston, MA: Springer US, p. 58-81, (1998)
7. S. Naji, *La kasbah berbère, ou comment un particularisme architectural devint l'un des principaux archétypes touristiques chérifiens*, in *Fabrique du tourisme et expériences patrimoniales au Maghreb, XIXe-XXIe siècles*, Centre Jacques-Berque, (2018)
8. N. Beqqal, F. Z. Saaid, M. O. Chaoui, *Afr. Mediterr. J. Archit. Urban.*, **5**, 3-1 (2021)
9. J. N. Pieterse, *Globalization as hybridization*, in *Sociology of globalization*, Routledge, p. 39-60, (2018)
10. A. Simitch, V. M. Warke, J.-L. Clauzier, L. Coutrot, *Le langage de l'architecture: les 26 concepts clés*. Paris: Dunod, (2015)
11. G. Ptichnikova, *Hybridization in Architecture*, in *Proceedings of the 2nd International Conference on Architecture: Heritage, Traditions and Innovations*, Moscow, Russia: Atlantis Press, (2020)