Impact of New Green Cities on Moroccan Identity: Benslimane and Dakhla projects, Morocco

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Abstract

Moroccan cities have a long history that lasted from the Pre-Romain area till nowadays. The settlements have seen drastic identity shifts and changes that have even made some of them to disappear. Today, Moroccan cities have a strong identity that is reflected architecturally, socially, and in other aspects. This identity seems to change with the emergence of new eco-cities.

This paper is a historic analysis of the Moroccan cities between the Pre-colonial, colonial, and the post colonization periods, till the current sustainable transition witnessed due to the socio-economic pressures. Each period has a distinct architectural identity indicated by the political policies and reflected in the city organization as a whole, even shaping the city buildings.

For this research, two eco-cities of Morocco were analyzed, Dakhla and Benslimane. The principles, parameters, and urban strategies of the two cities have been discussed and compared to the different characteristics of the Moroccan cities. The paper traces each timeline change in order to identify how the identity of Morocco cities is fragmented but continues to be linked in time. The paper concludes that the trend of changes in the Moroccan green cities do not establish a new identity; it solves the fragmentation problem by creating a green sustainable referential for the future developments.

Keywords: Architectural identity; Sustainable transition; Dakhla; Benslimane; Morocco.

Introduction

The global vision of development of the Moroccan kingdom is based on sustainability with it's three aspects: social, economic, and environment. The economic crisis of 2007 due to the increase in fuel prices led to the 2009 energy strategy aimed at increasing the share of renewable energies in the energy mix of the country to increase its autonomy, (Karoline, 2015). The strategy was to solve the problems of the fast growth of the population, urbanization, and the challenges of development and electrification. To keep up with urbanization, the government launched some prototypes for sustainable neighborhoods to

generalize the new policies. Named "Eco neighborhoods", they were redevelopments of problematic neighborhoods that had been the shift between the old and the new centers. They were targeted as they were the most conflicted parts of the city, (Bureau d'Études Techniques BET report, 2016). These have also been discussed at bigger scale with Eco-cities projects.

The first cities to even introduce the term sustainability or eco-cities are European ones; it is not to say that other cities around the world were never sustainable. Sustainability is a combination of parameters that serve three essential pillars. However, before the term was discussed in literature, those parameters were present in the middle-age cities in the East. Cities such as Damascus had shone with their vernacular architecture (Opaluwa, 2012), urban planification and solutions such as water management, (Manuel, 2018), economic prosperity, environmental awareness and social development.

The term is referring only to the modern cities nowadays. "Conventional" examples of green cities such as Stockholm, (Uggia, 2012), Freiburg, (Medved, 2017), Vancouver, (Kirstie, 2018), depict different green transitions. Stockholm was made utilizing competitive standards (Medved, 2017). Despite its' long history and identity (Sidenbladh, 1965), it had favored urban designs and environmental planning parameters to achieve livable districts. Freiburg city represents an early example that had to experiment with all the processes of sustainability transitions. Vancouver is a global city that had been labeled green since its start due to the country's natural assets. Hence, the existing examples of green cities do not discuss the impact of the transition of existing cities.

This paper aims to establish the features of identity of the Moroccan cities as well as the new green cities. It will discuss the government strategy to keep the identity of the Moroccan cities while adopting the new policies.

Review of Literature

Identity is a complex concept that cannot fit into a single dimension. It can hold various meanings depending on the contexts in which it is used. The term itself could signify continuity and unity, and hence it cannot hold one stagnant definition (Relph, 1976). The identity of a person could have signified the name, age and maybe even the security number. It could also mean the culture, history, memory, or simply the sense of belonging (Heidari, 2016). An important point to highlight is that identity is accumulative, and that it can never be achieved instantly. The process itself takes time and the accumulation defines identity, (Thompson, 1996; Castells, 1997). In a way, identity is unique to a person but also defines the person within a group (Anthias, 2008). One cannot define identity without a context, which is why Berger had said that identity is a "socially bestowed, socially transformed" character (Gervais & Lambony, 2006). It is a process to belong to a milieu (Correa, 1983). It can also mean the collective culture and wealth, that a society shares (Tomlinson, 1999). The complexity of this concept comes from the underlining of the disciplines that bind it (Passi, 2002). Identity as we have seen is a process that takes time and thus creates history. In a way, it is a form of civilization (Abel, 1997).

Identity has different principles. According to Graham, it has three principles: distinctiveness, continuity and self-esteem (Graham ,2009). Blackwell adds to those previous principles: the self-efficacy (Blackwell, 1993).

When talking about architectural identity, Henry states that architectural identity is what links people to a city and creates a collective memory (Henry, 1991). Albeit that, the society reflects its' identity on architecture in many ways. It is also the society's expectations that shape and create identity (Adam, 2012). Every space has a meaning and the users' interactions with it creates the process of memory. Thus, a sense of belonging and an identity rest with the user (Polat, 2011).

According to Goddsteen (1994), a city identity is given by the citizens. Many have supported this idea. Architectural identity can be defined by the users' interactions with the forms, functions and social and cultural aspects. In opposition, Erses describes the city as an organism in itself, thus having social and physical presence, and creates and defines its' own

identity (Erses, 1999). As Roth claims, architecture in itself is a display of culture, a heritage and silenced piece of identity (Roth, 1993). Orer classified the manifestation of identity in cities into two categories: environmental and social (Orer, 1993). How they interact with it is what creates the identity of the individuals (Oktay, 2015). As Lalli has referred to, urban identity is the interaction of people and their context making that context aware of this interaction, (Lalli, 1992).

It is unquestionable that architecture contributes to give a space an identity. Thus, serving it in a way that goes with the space meaning or not is up to the architects (Dovey, 2010). For instance, identity can be given or defined. The new city's identity is essentially premade as the marketed image; however, this instance can be changed according to the citizens interactions with the city. The sense of place planned strengthens the local identity, (Yeang,?). The destruction of identity can also occur architecturally. City identities are ruined by wars and reconstructions, as well as by technology and developments (Bulut, 2019).

Moroccan modern history has been accounted only in few sources; most of them by foreigners (Calderwood, 2012). Thus, Moroccan city's identity in literature has been discussed mainly on the transition between the historical periods. The accounts have targeted the social, economic, and political changes (Boubrik, 2022). Gilson had discussed the transition between precolonial and colonial Moroccan cities (Miller, 2005). The same discussion has been highlighted by Geertz who thought that the transition does not represent a coherent historical continuation (Geertz, 1989). Postcolonial transition has been discussed in terms of the fragmentation of the cities due to political instability (Katarzyna, 2007), as well as tendency of preserving the precolonial Moroccan architecture (Douglas, 1965).

The discussion of architectural identity of Moroccan cities has been agreed upon on precolonial period. A specific narrative for the shapes (Hakim, 2008), and urban systems, (Weber, 1964; Dale, 1974), are constantly present in the literature. The colonial period however has been discussed differently. While some have argued that the colonial state policy was protecting historical sites from harm, thus creating new cities and identities, (Holden, 2007). Others have taught on the transition, a display of rooted colonial mindset (Abu-Lughod, 1980; Morton, 1998; Jonathan, 2017). The differences between the cities under French colonial administrations and the ones under Spanish colonial administration have also been discussed by Adria (2013).

Identity in postcolonial Moroccan cities have had different narratives. Abu Lughod has discussed how Moroccan city's identity become shattered in the colonial period (Janet, 1979). Others have argued that postcolonial cities had successfully re-established the forgotten precolonial identity (Brenda, 2001; Douglas 1965).

Literature has tried to understand the conflict of the transitions and the impact of political changes on Moroccan cities. However, architectural identity has not been discussed according to a framework. Rather, it is analyzed as a consequence of a socio-political cause. New cities that are trying to resolve the consequences of previous transitions are not regarded as a new identity transition (Atia, 2022; Wagner, 2014).

This paper traces the background of the transition of the Moroccan cities as well as architectural identity according to pre-defined parameters.

The Theoretical Basis
Architectural Identity Parameters

Identity is reflected architecturally by many means. According to Bulut (2019), it can be seen in forms, mass/voids, street organization and materials. Candace (2017) sees it visually, in materials and rhetorically; visually, as the architecture styles manifest, in materials as they represent the origin of the places, its' soil and geographical characteristics, rhetorically by using critics and literature to highlight the places. To understand how architecture can manifest identity, Zohra and Sara had identified the main characteristics as: Spatial Organization, Time organization, Semantic Organization, General Design Principles, Shapes and Forms, Building Materials, and Relationship with the context (Brahman, 2013).

Spatial optimization

It is the city general planning strategy. The early mediaeval cities were often organically growing, even the main axes are not aways regarded, as in the case of North African mediaeval cities. The organic organization would often follow a slope or terrain characteristics for the settlement spread. Roman medieval cities had often a strong North-South axis and an East-West one in cross shape to organize the general layout. Grid systems were introduced with the modernism movement in order to create even parcels and better land distributions. An example of it would be Barcelona city planning. Another spatial optimization that popped especially with garden cities concept is the circular urban development offering various circles that have different functions inside each circle for perfect perimeter distance between each one.

Semantic Organization

It refers to signs, perceptions, and experiences that keep the community together. These signs could be reflected architecturally in the disposition of certain elements, or the presence of certain functions. An example for it is the reflection of the Islamic religion in the Islamic cities. Islamic cities often grow around a mosque, since ablution is very important, water presence is often regarded as public spaces for the city such as fountain squares or basin gardens. Each district must include a public bath, a mosque and a school, a street market, and a public oven. These elements together created an experience and memory for the inhabitants as they develop certain habits with them.

General Design Principal

It is the principle of parcels distribution and organizations as well as if it is a void in mass or mass in voids. Medieval cities tend to be designed as a mass that have some voids to create circulation outside the mass. Buildings characterize the streets and open spaces. Modernism introduces the mass in voids type where a design is set in void and thus the design for public spaces and avenues become more primordial.

Shapes and Forms

In the urban scale, the forms would refer to the adopted buildings style, movement, and shapes. Social housing of the post war area had created boxed concrete deserts as a remedy to the crisis of the shortage of housing. The same shape of the apartments had spread over the suburbs for the less fortunate citizens.

Materials

The construction of the cities tends to use materials that follow urban planning policies. Sustainable cities often use local materials, recyclable ones and materials with high energy efficiency. Modernism had used concrete as a main material due to its fast construction time and adaptability with modern principles. Materials do also reflect the origin of the place, its' natural assets and thus can play the role of an identity card if used locally.

Relationship with the context

This parameter refers to both urban scales, the adaptability of the city or urban settlement with its' surrounding, as well as the smallest scale, the relationship of the building and the city. Modernism is often criticized for creating a rupture between buildings and their context by elevating them from the ground, often not respecting the existing history or vista of the place implemented on it.

The Research Methods

This research employs a combination of different research methodologies: documentary research, case studies, and a correlational study.

Documentary research: this used keywords such as Identity, Green cities, and Architecture identity, in search engines such as: Science direct, ProQuest, Google scholar, etc. The works were collected, categorized and analyzed accordingly to the parameters of architectural identity.

Case study research: documentations on two cities were sought from the Moroccan Ministry of National Special Planning, Housing, Urban Planning and City policy: the promotion of Benslimane eco-city Report of 2020, and the Dakhla Report of 2020. These examples were chosen as they are the only research projects for the eco-cities proposed by the Ministry up till now.

Correlational Research: a casual comparative study that evaluates the identity of the two current cities and the existing Moroccan architectural identity. The characteristics of the cities were categorized according to the identity parameters identified previously in the introduction.

Findings and the Discussion

The following section discusses different documents that have showcased Moroccan cities: past, present and future perspective of identity. The literature about Moroccan cities history had discussed architectural identity in different perspectives. The documents analyzed were classified according to the identity ideas discussed, architectural identity mentioned or not as well as which parameter of the identified architectural identity is targeted. The following table summarize 30 documents that trace Moroccan city's identity through history. Some of the documents do not target architectural identity mainly; however they provide an insight of socioeconomic and political state of the cities. Therefore, the were analysis to set the background of architectural identity changes in the Moroccan cities.

Table 1: Analyzed documents that trace the Moroccan city's architectural identity and parameters from the precolonial time till the modern days. (Y: Architectural identity is discussed specifically. N: Architectural identity is not discussed). Source: Authors.

Source	Period	Findings	Architectural Identity	Parameters
Eric Calderwood, (2012). The beginning (or end) of Moroccan history: historiography, translation, and modernity in Ahmad B. Khalid al-Nasiri and Clemente Cerdeira, Int. J. Middle East Stud. 44, 399–420	Pre colonial	Beginning of the Moroccan modern history accounting. Comparison of two accounts of War from both parties.	N	-
Rahal Boubrik, (2022). Nineteenth-Century Slave Markets, The Moroccan Slave Trade, AlMuntaqa, Arab Center for Research & Policy Studies, 63-79	Pre colonial	Fez, Meknes, Rabat, Sale, and Marrakech was active trade cities and kept their activity as nodes for commerce as ancient imperial cities	N	-
Susan Gilson Miller, (2005), Finding Order in the Moroccan City: The Ḥubus of the Great Mosque of Tangier as an Agent of Urban Change, Muqarnas, 22, pp. 265-283	Pre colonial	Religious buildings were the pillars of Moroccan Pre-colonial cities' urban body.	Y	Semantic Organization
		Moroccan Pre-colonial and colonial cities are results of rupture represented in socio political change		
Clifford Geertz, (1989). "Toutes Directions: Reading the Signs in an Urban Sprawl," International Journal of Middle East Studies 21, 291-306.	Pre colonial	The notion of the city had long started in Morocco. However historically, Moroccan cities do not represent coherent historical continuation. New cities tend to grow apart from the existing one.	Y	Spatial Organization

Max Weber, (1964). Theory of Social and Economic Organization, trans. A. M. Henderson and T. Parsons, 136-39	Pre colonial	Habus system is a real estate that is rent serve for community services. Hubus system: urban reflection of Collective system for charity and solidarity	Y	Semantic Organization
Kennedy Hugh. (1985). "From Polis to Medina." Past and Present, 15-16	Pre colonial	Mosques are the new urban forms that the Islamic city is centered on	Y	Shapes and Forms
Besim S. Hakim, Arabic- Islamic cities: Building and planning principles, 2008, 95-96	Pre colonial	The architecture principles of "Dar", Moroccan traditional courtyard house.	Y	General Design Principal
Eickelman Dale. (1974). Is There an Islamic City? The Making of a Quarter in a Moroccan Town. International Journal of Middle East Studies, 5(3), 274–294.	Pre colonial	Typical cities architecture: The city could be fortified or not, the main feature is the sense of belonging.	Y	Spatial Organization
Janet Abu-Lughod, (1980). The Legitimacy of Comparisons in Comparative Urban Studies: A Theoretical Position and an Application to North African Cities.	Pre colonial	Moroccan precolonial cities organization	Y	Spatial Organization, Semantic Organization
Gold Peter, (2013). 'The Impact of the Enclaves on Spanish–Moroccan Relations', Europe or Africa? A Contemporary Study of the Spanish North African Enclaves of Ceuta and Melilla.	Colonial	Protectorate system was imposed to Morocco with France as main protector, and Spain settling in the North and South	N	-
See Jos´e LuisVillanova, (2003). El Protectorado de Espa˜na en Marruecos (Barcelona: Edicions Bellaterra, 2004), 53–70; and Josep Llu´ıs Mateo Dieste, La 'hermandad' hispano-marroqu´ı, 55–78.	Colonial	"The Protectorate" system of Lyautey in Morocco: A form of colonization unbodied in the protection that a powerful nation provides to a weaker nation	N	-
Ennaji Mohammed, (1978). Expansion européenne et changement social au Maroc, XVIe-XIXe siècles, 40-43.	Colonial	Islamic cities had entered forced globalization by the entrance of the European colonization	N	-
Susan Gilson Miller, (2005). Finding Order in the Moroccan City: The Ḥubus of the Great Mosque of Tangier as an Agent of Urban Change, Muqarnas 22, 265-283	Colonial	The new urbanism starting with Henry Post designing the new city, "La ville nouvelle" in the major cities such as Tangier, Casablanca, Rabat, Meknes, Fes	Y	General Design Principal
Jacques le Golf, (1972). The Town as an Agent of Civilisation, The Fontana Economic History of Europe: The Middle Ages, 74	Colonial	Islamic towns sought organic forms but had ordered by centering the cities around religious edifices. Colonization cities sought uniform order regulated by leisure and work.	Y	Semantic Organization, Spatial organization
Pat Morton, (1998). A Study in Hybridity: Madagascar and Morocco at the 1931 Colonial Exposition, Journal of Architectural Education.	Colonial	Morocco was considered as indigenous; in a way it meant that the French did not accept Moroccan people or history	Y	Semantic Organization, Shapes and Forms
Wyrtzen Jonathan, (2017). Colonial Legitimization-Legibility Linkages and the Politics of Identity in Algeria and Morocco. European Journal of Sociology, 58(2), 205–235	Colonial	Architectural displays of colonial states built by French architect was the pride of the French colonization	Y	Semantic Organization
		The acceptance of the "indigenous" cultures was in developing cultural and economic projects such as "Les Villes Nouvelles" in Morocco. The projects		

		were made to display "authentic" local culture. But it also segregates the existing historical cities.			
Abu-Lughod Janet, (1980). Rabat: Urban Apartheid in Morocco.	Colonial	The division of the traditional Medina and La Ville Nouvelle displayed the colonial political and social colonization state. No interference between the two parts of the city.	Y	Spatial Organization	
Picard, c., & grummel, w. C. (1949). Volubilis: french excavations at a moroccan city. *Archaeology*, *2*(2), 58–65.	Colonial	Marshal Lyautey, under French protectorate had also documented, and excavated historical sited and cities such as Volubilis the Roman city	Y	Spatial Organization	
Holden, S. E. (2007). Constructing an Archival Cityscape: Local Views of Colonial Urbanism in the French Protectorate of Morocco. History in Africa, 34, 121–132.	Colonial	Medina was the Moroccan quarter, La Ville nouvelle was the city scape for European use	Y	Spatial Organization	
		The medina deemed a historical site was well preserved by colonial state			
Lawrence Adria. (2013). Nationalist Mobilization in Colonial Morocco. In Imperial Rule and the Politics of Nationalism: Anti-Colonial Protest in the French Empire, 166-213	Colonial	French and Spanish divisions of Morocco had made a different political division.	Y	Spatial Organization, General Design	
'Protectorate Treaty between France and Morocco', (1912). American Journal of International Law, 6, 3, p.208	Colonial	Morocco is divided to useful Morocco and useless Morocco with a French dominance and Spanish help	N	-	
Pieprzak, Katarzyna. (2007). "Ruins, Rumors and Traces of the City of Brass: Moroccan Modernity and Memories of the Arab Global City." Research in African Literatures 38, 4, 187–203	Post-Colonial	Post-colonial Moroccan cities had faced socioeconomic problems due to political instability. It can be reflected in a period of fragmentation and alienation witnessed in cities.	Y	Semantic Organization	
		Industrial cities become quickly a hub for shanty towns due to the unbalances between the rural and urban areas			
		Cities restoring their identity while building mosques and returning to Islamic cities features			
Anglin, Douglas. G. (1965). Review of Old Societies and New States: The Quest for Modernity in Asia and Africa, by C. Geertz. The Canadian Journal of Economics and Political Science, 31(4), 603–605.	Post-Colonial	Preserving spiritual identity of the cities by going back to Islamic cities Identity	Y	Semantic Organization	
Yeoh Brenda (2001). Postcolonial cities. Progress in Human Geography 25: 456–468	Post-Colonial	Postcolonial cities of Morocco represent a case of the continuation of colonial urbanism while returning to Islamic identity. The colonial legacy was preserved and new elements of the city were added.	Y	Semantic Organization	
Abu-Lughod Janet. (1979). Dependent Urbanism and Decolonization: The Moroccan Case. *Arab Studies Quarterly*, *1*(1), 49–66	Post-Colonial	Moroccan cities were rebuilt but have been shattered by years of identity deprivation	Y	Semantic Organization	
		Linking the two differently colonized regions of Morocco was challenging. The north was not developed by Spain, the south was too centered by French urbanism			

		Public housing program failure in front of the fast urbanization and housing shortage of the poor		
Amin Samir, (1970). The Maghreb in the Modern World: Trans, by Michael Perl	Post-Colonial	Socialist policies to solve housing crisis	Y	Semantic Organization
Najm-dine el Otmani, (2018). An Evaluation of Housing in Casablanca, Morocco: Anfa Case.	2000th	"Cities without slums" project implementation problems and challenges of Casablanca city housing.	Y	Shape and Forms, Spatial Organization, Material
Wagner, L., & Minca, C. (2014). Rabat retrospective: Colonial heritage in a Moroccan urban laboratory. *Urban Studies*, *51*(14), 3011–3025.	2000th	Colonial policy for urbanization was to preserve the existing but still build next to it the alternative. Postcolonial cities had preserved this mentality by implementing mega projects that can attract the investors beside the historical part of the city.	Y	Semantic Organization
Adnane M'Saouri El Bat, and all, (2021). Thermal impact of street canyon microclimate on building energy needs using TRNSYS: A case study of the city of Tangier in Morocco, Case Studies in Thermal Engineering, 24	2000th	The ratio of canyon streets affects the microclimate indoors at outdoors due the benefit of vernacular narrow streets can be explained	Y	Shapes and Forms, General Design
Ona Atia, (2022). Refusing a "City without Slums": Moroccan slum dwellers' nonmovements and the art of presence, Cities, 125.	2000th	Zenata was built as a green city that is centered around slum dwellers that are misplaced, but it was still hugely refused due to top-down programs.	Y	Semantic Organization

The data collected showcase that architectural identity is often discussed broadly in term of Semantic organization. Precolonial cities have often been analyzed in terms of their spatial organization and the importance of their strong semantic organization. The colonial period is discussed as a rupture of the existing precolonial identity. The spatial organization of the new regime as well as the difference between French and Spanish Semantic organizations is traced. The postcolonial period is a struggle period to restore the country's identity. Implementation of certain architectural identity parameters in the Postcolonial cities was a way to continue the rupture caused by the colonial period. Modern cities from 2000 up till now is discussed more critically in terms of shapes and forms, spatial organization, etc.

Moroccan Cities' Identity

The country need for a new sustainable and green strategy has been reflected in the cities. It is known that Morocco represents a case of no rupture between its different historical periods (Wylie, 2018). It tries to have a discourse of continuity by embracing all its' legacies. Thus, through its' long history from the Pre-Romans, Roman, Amazigh, Arabic Conquest, Portuguese, French and Spanish Colonization, Post war and post dependency, it has maintained its' inner identity. The cities have unique characteristics and strong identities displayed architecturally by materials, geometry, urban texture, hierarchy etc. Each period has a distinct characteristic adding another layer to the existing identity. The current state of Moroccan cities is the overlaying of strong identities impacting each period and coming together (Elsheshtawy, 2004).

The Moroccan Cities: A Historical Narrative
Pre-colonial Moroccan cities

City planning for the Precolonial Moroccan cities was rather organic than a planned one; no grid or distinct axes can be seen. The cities octagonal shape comes from the adaptation of the city slope to what was supposed to be rectangular (Bonine, 1990). The growth is spatially around the mosques facing the "qibla", the sacred destination, which is the direction facing the holy mosque, with the presence of necessities such as fountains, schools or high education institutions called "madrassa". Morocco represents a unique case from other Islamic cities because most of its' cities were established as new settlements, thus they manifest most of the crude Islamic urbanism (Abu-Lughod, 1980).

Fig. 1: Left: Fez el Bali aerial view, Qaraouine University settlements. Source: Google Image. Right: Fez city old town mass and void.
Source: Authors.

There are four imperial Moroccan cities, meaning that those cities used to be capitals for the different dynasties. The first capital is Fez founded by the Adarisa dynasty. Originally, it was a small town constructed in the 8th century by Idriss I on the left side of Fez River. The city continued to grow with the settlement of Andalusian families running away from Cordoba. Later on, the city was further spread to the right bank with the Merinds dynasty from the 13th century creating the old Fez (Fez el Bali) on the left side of the river, while the new Fez (Fez el Jadid) was on the right side. In this period, the oldest university of the world "the Qraouine university" was built, and the influence of Andalusian architecture also created the Moroccan Medieval architecture characteristics (Bonine, 1990). The evolution of the Medina does not follow any pattern, only the streets directly nearby the mosques face the sacred direction. The general settlement follows the hill slope (Fig.1). The city entered the UNESCOs Heritage list and is under conservation since 1981 (UNESCO). Three more imperial cities would follow suit with more or less the same characteristics of Fez. Meknes city built in the 10th century by Almouwahid dynasty, and Marrakech on the 11th century became the capital of the Amoravid dynasty. Rabat built in the 12th century became the capital of Alaouite dynasty from then on till these days, (Greertz, 1989).

Apart from the imperial cities, most of the "medinas" were built in the period between the 8th and 17th centuries, and have distinct Islamic features of : walled cities or fortresses for protection (Dale, 1974). The houses were spatially inspired by the Andalusian courtyard houses typical for the region, and "Ksours" known for their geometrical shapes and clay use. Overall, the cities had strong characteristics influenced by the culture and the climate.

The houses of Medinas are also distinct by their architecture, forms and materials. Typically, the houses would have no windows on the streets but had only small aeration openings covered in Musharabi. They usually had a courtyard where most of the living activities took place. Inside, a small fountain or a basin for ambulation and serenity existed. The access to rooms and openings were around the courtyard (Hakim, 2008).

The Moroccan courtyard house was inspired by Sham architecture, and Andalusian culture. It became the iconic symbol of houses in Morocco. The courtyard interior is designed to represent Moroccan craftmanship, identity and climate adaptations (Hugh, 1985). The craftmanship reflected the history and culture, while the materials portrayed their original place. The courtyard not only represent the good usage of materials for the climate, but the form itself represent a passive solution. The closed facades did not only provide privacy but hid the strong direct sunlight exposure that causes uncomfortable indoors (Bat, 2021).

Colonial Cities

The French protection imposed by Marshal Lauyaute in 1912 would be the changing points of the identity of Moroccan cities. Morocco was considered as indigenous; in a way it meant that the French did not accept Moroccan people or history (Jonathan, 2017). Morocco in general was separated into two sections: the useful Morocco, which are regions of agriculture, mining, and the useless Morocco, which is basically the desert area of the South, (Peter, 2013). The city Tangier in North was considered an international one as it was a strategic point for various leading countries as it faced both Atlantic Ocean and the Mediterranean Sea (Miller, 2005). Contrary to Algerian colonization strategy, the Moroccan French colonization did not involve in the history and architecture of the existing cities, (Morton, 1998). Indirectly, the policy of creating the new city, "La ville nouvelle", settlement outside of the walled cities Medinas shifted the identity of the cities (Stacy, 2007). The new French centers were planned by French architects and urbanists (Hassan, 1992). The cities were built to make it as French as possible to accommodate foreigners (Benoist-Me'chin, 2007). Wide boulevards ending with the train station or the city councils, the central post and hotels laying on the side of the boulevards (Fig. 1), then the residential apartments and villas were planned behind it (Ezeddine, 1984).

Fig. 1 : Main Boulevard of La ville nouvelle de Rabat, Mohammad V Boulvard,
Source: Google image

Post-Colonial Cities

Morocco had struggled in the post-colonial period as the effect of long wars had drenched its' economy socially and politically (Mounia, 1997). Thus, such reform in policies was much needed. The years between 80s and 2000 were marked by economic problems and intense drought leading the agriculture country to lose youth from the rural areas to the urban areas. The consequences were fast urbanization, slums and unshaped cities with problematic neighborhoods that showed intense social and economic segregation (Otmani, 2018). This period is also marked by the resettlement of the Medina dwellers. The economic crisis touched the old town making it harder for families to take care of the old historical houses. Another reason for the movement of the dwellers from Medina to the new center was the work opportunities for the younger generations created in the newer parts of the city as well as proximity and accessibility.

Fig. 2: Construction of Hay Hassani, Casablanca (1960s), surrounded by agricultural land.
Source: Casamémoire

An intense shift and a growth of cities is noticeable by the 50s (Janet, 1979). The new centers and neighborhoods abandoned by the French were occupied by the well-off Moroccans leaving their old medinas to the rural new comers (Banque d'Etat du Maroc, 1965). Consequently, the population in historic centers decreased drastically shifting the identity of the cities towards the French centers (Duarte, 2008).This made it suffer from an intense segregation (Katarzyna, 2007). A social housing plan was promoted by the experimentations lead by Ecochard, "Ecochard housing grid 1950" (Jean, 1970). After 2004, an intense program for the development were made in order to bridge down the different parts of the cities and minimize the gap. To achieve this policy, Morocco embarked on an ambitious program to create new towns. A true national strategy for urban planning, it was originally fifteen cities that were to be created in order to eventually decongest the big cities, rebalance the territory and accommodate more than one million inhabitants. However, it is clear that there is a significant gap between the initial expectations of the program and the results recorded. In 2015, less than a third of the projects announced passed the test of four implementation and the projects in progress show a delay in the construction of housing, public facilities, infrastructure for access and settlement (Tarik, 2017).

The politics made it clear that a sustainable development is the only solution for a country, that is unlike others in the MENA region, do not have Gas or Oil. More slums were eliminated specially after 2010 with intense redevelopment to the segregated areas of the city, (Kingdom of Morocco's Official Newsletter, 2010). The consequences of such fact to remedy and to regulate the social problems were severe (Koennard, 2011). The displacement of slum inhabitants into places further away from the city in social quarters also created ghetto neighborhoods (Atia, 2022). The continuity of the program seems to be frightening as it just contributed to the gentrification of the city for the foreigners and investors while hiding away the sources of the problem. Social housing program had benefited the middle class instead of the vulnerable, while the reality showcased the segregation and social problems of the displaced inhabitants of the slums (Le Tellier, 2009).

Through the years, Moroccan cities had various identity changes. The segregation witnessed between the old medinas and "La ville nouvelle" can be read architecturally with the walled city turning its back to the open wide streets plan of the French urbanism. Standing to each other, they manifested a physical segregation and an architecture display of the political problem the city had witnessed. Through the years, Moroccan cities had expanded beyond La ville nouvelle initial planning. Colonial policy for urbanization was to preserve the existing but still build next to it the alternative. Postcolonial cities had preserved this mentality by implementing mega projects that can attract the investors beside the historical part of the city (Wagner, 2014).

Table 2. Architectural identity characteristics of Moroccan cities through time

Time Frame	Spatial Organization	Semantic Organization	General design Principal	Shape and Form	Building Materials	Relationship with the context
Imperial Period 1100-1600	Organic growth. Voids in mass	Privacy reflected in society and buildings	Walled cities or fortresses	Courtyard houses	Clay, stone, wood	Existing
Colonization period 1912-1956	Strong hierarchy, Mass in voids,	Oppression by introducing bigger forms, massiveness	Aesthetic, Whiteness,	Art décor, Modernism	Concrete	No relation
Post Colonization 1960-2000	Semi structured planification, Mass in voids	French dependency by reflecting the same shapes	Simple and functional	Modernism, Deconstructivism	Concrete	No relation

Architecture identity in Moroccan cities had conserved a certain language especially semantically. Post colonization cities tried to create a "Neo-Islamic" return. The projects of cities development at 2000th such as Tangier-med, Casablanca port, Rabat Bouregrag, had conserved certain French city policies (Bogaert, 2018). The importance of the context conservation and maintaining the relation to it is disregarded in small scale, however as fragmented the architectural language can seem. It had become the new established identity of the Moroccan cities.

Moroccan Sustainable Transition

The Ministry of National Spatial Planning, Housing, Urban Planning and City Policy has set its' main objective: the preparation for future territories by 2040, through the launch of a national sustainable urban planning program that adopted four operational and strategic pillars: Sustainable strategic planning, Territorial resiliency, territorial sustainability, and Digital transformation of territories. Thus, the department had launched a study for the promotion of eco-cities, eco-neighborhoods (eco: ecologic, a term referring to sustainable in French urban usage) as a new privileged framework for innovation action, experimentation, and transfer allowing the frame of sustainable and active urban development models for the country to be set (The ministry of NSPHUP and CP, 2020).

Fig. 4: Moroccan Mega-projects and sustainable green cities projects in the kingdom.
Source: Author

Eco-Cities Projects

Eco-cities projects are an initiative that showcase the green transition of the Moroccan state. These cities were introduced as proposals. Some of these proposals had been launched already such as the Zenata city and the Benguerir City. Other projects were proposed and are still presented as a research project only (Table 3).

Table 3: Moroccan Eco-cities projects proposed or launched through the years.

Eco-city projects:	Position	Surface	Year	Source
Benslimane	55km from Casablanca	816 ha	Proposal in 2020	Ministère de l'aménagement, de l'urbanisme, d l'habitat et de la politique de la ville ; Promotion d'une écocité a Benslimane,2020
Dakhla	1405 km from Marrakech	868 ha	Proposal in 2020	Ministère de l'aménagement, de l'urbanisme, d l'habitat et de la politique de la ville ; Promotion d'une écocité a Dakhla, 2020
Zenata	19 km from Casablanca	1830 ha, (5,35km coastline)	Launched in 2011	CDG développement, Appel à Manifestation d'intérêt, Ville Nouvelle de Zenata, 2011
Benguerir	73 km from Marrakech	1000 ha (188ha done)	Launched in 2012	SADV (Société d'aménagement et de développement vert, OCP) ; ville verte de Benguerir, 2012

The projects of Eco-cities have been set as an exemplary green city, with specific criteria such as: compacted neighborhoods units, having various functions, and target pedestrian usages. The green integration is taken as priority by increasing cities' gardens, parks. Each city must develop according to these main criteria and adopt its' own solutions.

Benslimane and Dakhla cities are existing cities that were proposed to be redeveloped as Eco-cities. The projects are made only as research proposals and are still not launched yet. The objective of such proposals is to set the guidelines for future developers as well as set the state policy for the new green cities projects. The choice of the Dakhla city is due to its' potential positioning as well as its' problematic growth. Benslimane city was studied due to its proximity to the megacity of Casablanca and its' potential to solve the uncontrolled city spread (The ministry of NSPHUP and CP, 2020).

Cases Studies: Dakhla City

Dakhla is located in the extreme South of Morocco, slightly North of the Tropic of Cancer (23° 43 north latitude and 15° 56 west longitude), 1500 km from the capital Rabat. The city develops on a narrow peninsula which extends over approximately 40 km and 2 to 5 km wide parallel to the Atlantic coast, in a northeast-southwest direction, forming an exceptional bay of around 400km². The city of Dakhla has a population of 102,098 inhabitants (The High Commission for Planning, 2014). It experiences a rapid evolution due mainly to strong urban growth and migratory flows. The city extends over an area of 868 Ha (without the airport) with 60% residential zoning and 9.2% amenities. The current spatial configuration of the city is in an elongated form in the North-South direction, following the direction of the peninsula, which also dictates the location of the airport and the installation of the military barracks. This configuration turns its back on the nearby Atlantic coast. The morphology of the urban fabric is determined by the various programs of subdivisions of plots of 80 to 100m² and a gross density of 30 dwellings/Ha or 120 Hab/Ha. It is a monotonous city with few green spaces (2m²/inhabitant) (Dakhla report, 2020).

Fig. 5: Left: Dakhla city, Morocco, Bird Vue. Right: Existing state of the city, Source: (The Ministry of NSPHUP and CP, 2020)

Sustainability Parameters:

Eco city of Dakhla Proposal by the Ministry of National Special Planning, Housing and City Policy report of 2020 had established few parameters for the project. These parameters are the referential for the future city construction.

Social equity (Mix): The eco-city must be attractive thanks to cultural facilities on the scale of the Region and to economic activities such as the logistics and technical park, the university and tourist areas.

Transport: The ecocity model must integrate multi-modality as a guiding principle of mobility by planning multi-modal zones where the different mobility networks meet (public transport, pedestrian, cycle paths, roads, parking).

Environmental Planning: The objective of the ecocity is to preserve the natural environment and local identities by highlighting the remarkable elements of the natural and landscape heritage while ensuring ecological continuity between natural spaces and urban spaces. The ecocity model provides for several types of natural spaces, urban parks (3 large parks are planned for a total area of approximately 210 Ha: regional park, Bay Park and Atlantic Park), 14m² of green spaces per habitant, linear parks and nearby green parcs.

Fig. 5: Integration of Greenery in the urban tissue, Up Left: Before state, Up Right: After integration, Bottom: Different integration of greenery for the proposed parcels usage in Eco-cities. Source: The Ministry of NSPHUP and CP, 2020)

Urban designs and functions: The "ecocity" urban model is made up of eco-districts and neighborhood units of compact configuration, designed for the pedestrian use and, in addition, capable of accommodating multiple functions. Each facility on the scale of the city or region must be an opportunity to develop a new primary centrality. Each social facility must be an opportunity to create secondary centralities. Each district has a local centrality with its shops and day-to-day services.

Neighborhoods target diversity of housing types, the diversity of typology and architecture, the diversity of public facilities and services, the diversity of the public space, the streets and their layout, and finally the diversity of the social composition of the residents.
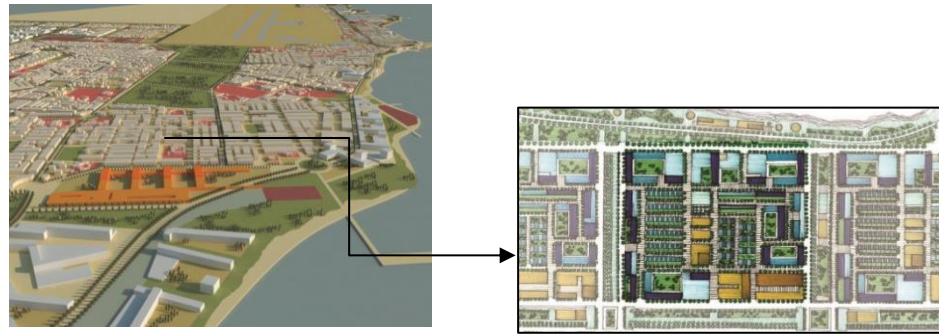
Fig. 7: The University is a reference facility that could energize the South of the city, an example of eco-district proposal for residency neighborhoods extensions in the city.
Source: The Ministry of NSPHUP and CP, 2020

The report included a suggestion for existing neighborhood planning and future ones. Dakhla as an existing city would be developed according to the new referential for a new eco city. The spatial organization is conserved with a grid system. Semantic organization was reflected by conserving the human scale with centric neighborhoods. The referential targets the concept for new designs establishing generic design model, (Fig. 5). It is up to the future developers to establish a detailed typology and thus forms and shapes. Existing materials for the old settlement are considered as an option for the new city.

Table 4: Eco-city Dakhla architecture identity parameters concluded from 2020 ministry report.
Source: Authors

Time Frame	Spatial Organization	Semantic Organization	General design Principal	Shape and Form	Building Materials	Relationship with the context
Dakhla Eco-City	Grid plan, Mass in voids	Centered neighborhood	No information	No information	Concrete, Earthen Materials	Established by façade uniform color, compacted neighborhood Design

The referential does not have the conservation of architectural identity as its' main target. It is implied in some of the sustainable development parameter that is targeted in the report. Dakhla city was part of the Spanish territory and thus does not have any clear urbanism other than the organic development of the city with the fishermen's settlement (Adria, 2013). The new Dakhla eco-city thus only incorporate the simple housing identity for human scaled expansion.
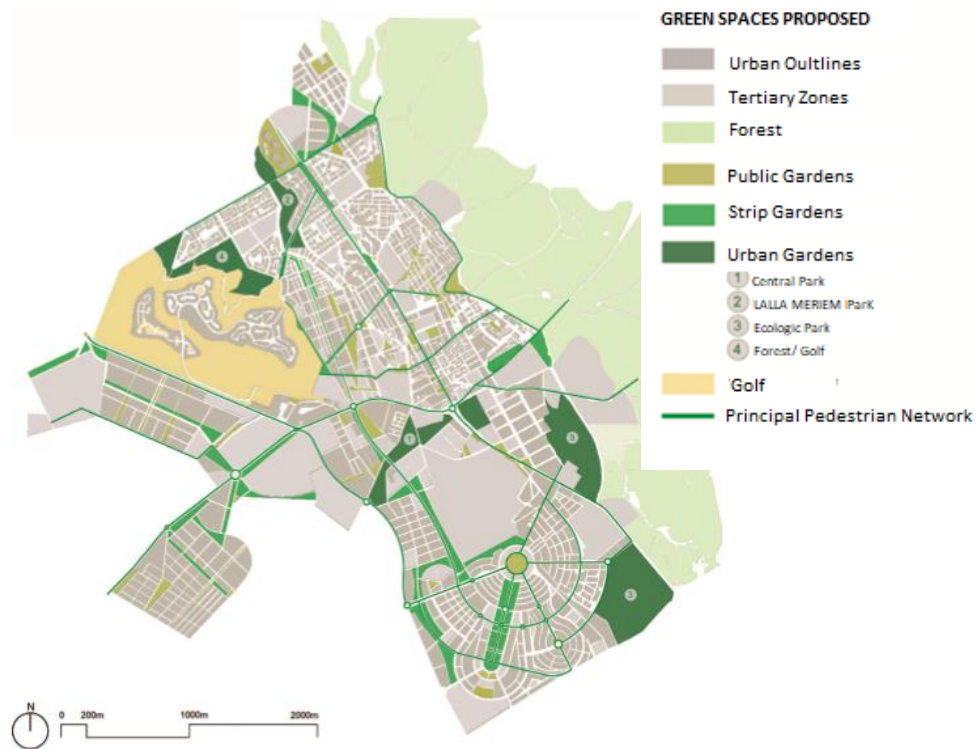
Benslimane City

The city of Benslimane is 60 km from Rabat and 55 km from Casablanca. It is limited to the North by the region of Rabat-Salé-Kenitra and the Atlantic Ocean, from the province of Settat to the South. (33° 36 North latitude and 7° 06 West longitude). Benslimane is located in the 2nd crown of greater Casablanca. For a long time, it was the only urban center within a large rural space. The city represents both a migration destination for precarious rural people and for city dwellers looking for a second home and investment in high productivity agriculture (Dirasset, SDAU, 2016). The city of Benslimane, capital of the province of Benslimane, has a population of 56,138 inhabitants (The High Commission for Planning, 2014). The productive activity of the city is linked to agriculture, forestry, construction and the industry. The Benslimane Forest is a microclimate conducive to the development of ecological tourism. This

forest environment is ready for hiking and horseback riding near the major urban centers of Morocco (Rabat and Casablanca). The total area of the urbanized area of Benslimane amounts to 816.5 hectares.

Sustainability Parameters

The report for the Benslimane city is less focused on the existing plan of the city development. It is a referential presented as reform for the existing urban policies. It targets mainly urban sprawl of the city with conservation of the natural assets such as the forest (Fig. 8).

Fig. 8: Green infrastructure of the Benslimane city, (The ministry of National Spacial Planning, Housing, Urban Planning and City Policy, 2020)

Environmental Planning

The objective of the ecocity is to preserve the natural environment and local identities by highlighting the remarkable elements of the natural and landscape heritage, while ensuring ecological continuity between natural spaces and urban spaces. Urban parks (four large structuring parks: Central Park, Lalla Meriem Park, Golf Course Forest Park and Ecological Parks on the edge of the city with the Benslimane Forest). Their location ensures a balanced distribution within the urban perimeter and provide Linear parks with a dual function: ensuring biological connectivity and soft mobility between residential neighborhoods. The area of green spaces is 25m² per inhabitant. In addition, the development regulations must provide for compulsory alignments of trees on the main roads and car parks along with 20% of local green spaces with children's playgrounds. It should have at least in the coexistence space and incentive measures for the creation of green facades or roofs and green alleys, a real oasis of freshness (Benslimane Report, 2020).

Urban designs and functions

The future master plan of the city incorporate maps of natural risks to avoid any new urbanization in sensitive areas and carry out thematic studies in accordance with the provisions of article 3 of the law on urban agencies. New urban extensions are planned in continuity with

the urban fabric, especially with mobility networks and urban services and facilities. In addition, extensions must not be located in a risk zone (flooding, landslide) and do not alter areas of high environmental or agricultural value. It should organize the city of proximity for soft mobility (minimize the distances, in time and space, between activities in order to reduce travel needs). The challenge is to compact and densify the center zone with various functions.

(**a**)   (**b**)

Fig. 9: (a) Densification of the central zone; (b) The University is a reference facility that could energize the center of the city.
Source: The Ministry of NSPHUP and CP, 2020)

The report of Benslimane tries to solve the missing points that the city expansion had created. It targets to link the existing spread centers. It also targets to use the natural assets for a green transition.

Table 5: Benslimane architectural identity parameters concluded from 2020 ministry report.
Source: Authors.

Time Frame	Spatial Organization	Semantic Organization	General design Principal	Shape and Form	Building Materials	Relationship with the context
Benslimane Eco-City	Grid plan, Mass in voids	No information	Linear expansion to link the existing centers	No information	Concrete	Incorporation of the forest in the city design

In terms of architectural identity, the special organization is a continuation of the existing city plan. No information about the semantic organization. It also seeks to link the forest to the city and implement various green spaces that help maintaining relationships with the surrounding Nature. The implementation of such a referential target is to establish a green city identity to an existing settlement. It also targets to solve some of urban problem of the region. Benslimane is considered as Casablanca's' suburb. Benslimane eco-city does not include any medina principles, nor follow the French urbanism features of Casablanca.

Conclusions

The development of Moroccan cities had seen various changes from the new Islamic cities, French modernism settlement to Postcolonial cities. Each of these periods have hyad distinct identities portrayed architecturally shaping the cities into a whole different setting.

The Pre-colonial period had defined Moroccan architecture especially as it showcased the fusion of Andalusian and Amazigh architecture coming together. The cities built at this period were new settlements and portrayed mostly the Islamic urbanism characteristics by keeping the religion as a focus for planning decisions, such as city growing around mosques, privacy is priority for design, etc. It also took in account the context which is the reason of

settlement appropriation with site slope, courtyard designs as a passive solution to be protected from heat, integration of water elements for cooling and ablution, usage of materials with high thermal inertia to delay the solar gains from creating discomfort indoors.

Colonial period had shaped a new identity by introducing the Modernism movement to the country and leaving the old settlement as it is. This had created a rift in the cities, two centers that each group use. Moroccans using Medina, Foreigners using the La ville nouvelle. The introduction of the city new planning and hierarchy changed the citizens lifestyle too. Neighborhoods are no longer for the Moroccan communities.

Post-colonial period is highlighted by two narratives: the rejection of French modernism and the return to Pre-colonial identity, especially for the government places. The second narrative is the ongoing French city planning for new cities as a consequence of lack for Moroccan expertise. The second narrative is by creating new development projects next to the historical centers in a way to link the different parts of the city.

New green cities are a trend that Moroccan government had established as a means for development. The projects do not target to re-establish a uniform identity. The various projects target the implemented city problem. The case of Benslimane project is to benefit from natural assets of the city and the forest to establish green transition. Dakhla case is to solve the limitation of the city expansion while maintaining the human scale of the existing city.

The architectural identity of both precolonial and colonial cities is precise. Spatial organization and semantic organization are clearly reflected and can be read in the cities. Post-colonial city's architectural identity had tried to link the two parts of the history. New green city's architectural identity lacks precise features. Both cases of the proposed projects of Dakhla and Benslimane have failed to establish a clear architectural identity parameter; either to link the existing pre-colonial cities, or the post-colonial urbanization.

In conclusion, "Green cities" trend of Morocco is not an establishment of a new identity to the Moroccan cities. It is a development method to solve the existing cities problem under a sustainable label. Cities expansion, while it is fragmented and have no specific architectural identity. It seeks to establish a referential that may be developed into more specific identity after construction.

References

Abel, C. (1997) Architecture and Identity, towards global eco-culture. Oxford: Architecture Press.

Abu-Lughod, J. (1980) The Legitimacy of Comparisons in Comparative Urban Studies: A Theoretical Position and an Appliction to North African Cities, Urban Affairs Quarterly, vol. 11, pp. 13-35.

Adam, R. (2012) Identity and Identification: The Role of Architectural Identity in a Globalised World, The Role of Place Identity in the Perception, Understanding, and Design of Built Environments, vol. 18, pp. 176-193.

Adria, L. (2013) Nationalist Mobilization in Colonial Morocco. In Imperial Rule and the Politics of Nationalism: Anti-Colonial Protest in the French Empire, Problems of International Politics, pp.166-213.

Anthias, F. (2008) Thinking through the lens of translocational positionality: an intersectionality frame for understanding identity and belonging, Translocations: Migration and social change, vol. 4, pp.5-20.

Atia, O. (2022) Refusing a "City without Slums": Moroccan slum dwellers' nonmovements and the art of presence, Cities, vol. 125.

Banque d'Etat du Maroc, (1965) La situation économique et financière du Maroc, chronique bibliographique.

Bat, A. M. (2021) Thermal impact of street canyon microclimate on building energy needs using TRNSYS: A case study of the city of Tangier in Morocco, Case Studies in Thermal Engineering, vol. 24.

Benoist-Me´C. (2007) Lyautey l'africain, ou le reve immole. Perrin.

BogaertIn, K. (2018) Globalized Authoritarianism and the Now Moroccan City, Middle East Report, vol. 287, pp. 6-10.

Bonine, M. E. (1990) The Sacred Direction and City Structure: A Preliminary Analysis of the Islamic Cities of Morocco, Muqarnas, vol. 7, pp. 50-72.

Boubrik, R.. (2022) Nineteenth-Century Slave Markets, The Moroccan Slave Trade, AlMuntaqa. Arab Center for Research & Policy Studies, pp. 63-79.

Brahman, Z. T. (2013) Effective Factors in Shaping the Identity of Architecture, vol.15, pp. 106-113.

Breakwell, G. (1993) Social representations and social identity, Papers on social representations, vol. 2, pp. 1-20.

Brenda, Y. (2001) Postcolonial cities, Progress in Human Geography.

Bulut, E. (2019) The suggestions for investigation and restoration of architectural identity of bursa coasts: mudanya and gemlik. Bursa Uludağ University Graduate School of Natural and Applied Sciences.

Bureau d'études Techniques report: Technical studies office, Territorio y CUIDaD, (2016) Djemaa neighborhood, Gueliz neighborhood, Ministry of National Territorial Planning, Urban Planning, Housing and City Policy, Department of Territorial Planning and Urban Planning, General Secretariat, Urban Planning Department, summary document of the study of eco-districts.

Calderwood, E. (2012) The beginning (or end) of Moroccan history: historiography, translation, and modernity in Ahmad B. Khalid al-Nasiri and Clemente Cerdeir. Int. J. Middle East Stud, Volume 44, p. 399–420.

Jones, C & Svejenova, S. (2017) The architecture of city identities: A multimodal study of Barcelona and Boston, Research in the Sociology of Organizations, vol. 54B, pp. 1-42.

Castells, M. (1997) The Information Age: Economy, Society, and Culture. The Power of Identity. Wiley Blackwell, vol. 2.

Cengiz Günay, C. H. (2018) Green growth and its global-local meanings - Insights from Morocco. Österreichisches Institut für Internationale Politik, Working Paper.

Correa, C. (1983) Quest for identity. In Proceedings of the Seminar: Exploring Architecture in Islamic Cultures, Architecture and Identity, The Aga Khan Award of Architecture, Concept Media, Singapore .

Dale, E. (1974) Is There an Islamic City? The Making of a Quarter in a Moroccan Town, International Journal of Middle East Studies, vol. 3, pp. 274–294.

Derya, O. & Havva, A. (2015) A Holistic Research Approach to Measuring Urban Identity: Findings from Kyrenia Area Study, International Journal of Architectural Research, vol. 9.

Dirasset, SDAU (2016) Urban Development Master Plan, Phase 1: Territorial analysis and development issues, Morocco, http://dirasset.com.tn/AMENAGEMENT.html.

Douglas, A. G. (1965) Review of Old Societies and New States: The Quest for Modernity in Asia and Africa, by C. Geertz, The Canadian Journal of Economics and Political Science, vol. 31, pp. 603–605.

Dovey, K. (2010) Becoming Places Urbanism / Architecture / Identity / Power. Routledge.

Duarte, J. R. (2008) a Generative Computational Model For The Regeneration Of Marrakech Medina, Traditional Dwellings and Settlements Review.

Elsheshtawy, Y. (2004) Planning Middle Eastern Cities: An Urban Kaleidoscope. Routledge.

Erses, S. M. (1999) Kent kimliği ve kuruluşundan günümüze metropolleşme süreci içinde Istanbul'un kimlik analizi. YTÜ Fen Bilimleri Enstitüsü, Şehir ve Bölge Planlama Anabilim Dalı, Istanbul.

Ezeddine, R. (1984) Etude et aménagement d'un quartier de la médina de Rabat. UPA de Nante.

Geertz, C. (1989) Toutes Directions: Reading the Signs in an Urban Sprawl, International Journal of Middle East Studies, vol. 21, pp. 291-306.

Gervais-Lambony, P. (2006) Reflecting on Identity of four African cities, Space and identity Thinking, African Minds, Compress.

Goldsteen, J. B. (1994) Designing America: Creating urban identity. Van Nostrand Reinhold, Paperback, van Nostrand Reinhold, NY.

Graham, H. M. (2009) Literature review: historic environment, sense of place, and social capital, International Centre for Cultural and Heritage Studies (ICCHS), Newcastle University, United Kingdom.

Hakim, B. S. (2008) Islamic and ethical requirements, in Arabic- Islamic cities: Building and planning principles, pp. 95-96.

Hassan, B. (1992) Urbanisation et gestion urbaine au Maroc. Rabat: Toumi.

Heidari, N. (2016) The challenge of changing identity in urban transformation process: Kâğithane case. Istanbul Technical University, Graduate School of Science Engineering and Technology.

Henri, L. (1991) The production of space'. Trans. Donald Nicholson-Smith.

Holden, E. S. (2007) Constructing an Archival Cityscape: Local Views of Colonial Urbanism in the French Protectorate of Morocco, History in Africa, Volume 34, p. 121–132.

Hugh, K. (1985) From Polis to Medina, Past and Present, pp.15-16.

Janet, A.-L (1979) Dependent Urbanism and Decolonization: The Moroccan Case, Arab Studies Quarterly, vol. 1, pp. 49–66.

Jean, D. (1970) Soixante ans d'urbanisme au réalisations, Bulletin Economique et Social.

Jonathan, W, 2017, 'Colonial Legitimization-Legibility Linkages and the Politics of Identity in Algeria and Morocco', European Journal of Sociology, pp. 205–235.

Karoline, S, 2015, 'Drawing Lessons When Objectives Differ? Assessing Renewable Energy Policy Transfer from Germany to Morocco'. Politics and Governance, vol.3.

Katarzyna, P. (2007) RuinsRumors and Traces of the City of Brass: Moroccan Modernity and Memories of the Arab Global City, Research in African Literatures, vol. 38, pp. 187–203.

Kingdom of Morocco's Official Newsletter, (2010) Dahir n°1-10-200 dated 23 moharrem 1432 (December 29, 2010) promulgating the Finance Act n° 43-10 for the budgetary year 2011, Kingdom of Morocco's Official Gazette n° 5904, 2157.

Kirstie O'Neill, J. A. (2018) Vancouver: Leading Green Building Transitions. Dans Green Building Transitions, Regional Trajectories of Innovation Europe, Canada, and Australia. Springer, pp. 99-132.

Koennard, B. (2011) The problem of slums: shifting methods of neoliberal urban government in Morocco, Development and change.

Lalli, M. (1992) Urban-related identity: Theory, measurement, and empirical findings, Journal of environmental psychology, vol. 12, pp. 285-303.

Le Tellier, J. (2009) Programme Villes Sans Bidon villes et Ingénierie Sociale Urbaine au Maroc in Politiques d'Habitat Social au Maghreb et au Sénégal Gouvernance Urbaine et Participation en Questions. L'Harmattan.

Lynch, K. (1960) The image of the city. Cambridge: MIT Press.

Mark Manuel, D. L. (2018) The sustainability of ancient water control techniques in Iran: an overview. Water Hist.

MEDVED, P. (2017) Leading sustainable neighbourhoods in Europe: Exploring the key principles and processes, Urbani izziv, pp.107-121.

Meiss, V. (1990) Elements of architecture: From form to place. Routledge.

Miller, S. G. (2005) Finding Order in the Moroccan City: The Ḥubus of the Great Mosque of Tangier as an Agent of Urban Change, Muqarnas, vol. 22, pp. 265-283.

Morton, P. (1998) A Study in Hybridity: Madagascar and Morocco at the 1931 Colonial Exposition, Journal of Architectural Education, vol. 52, pp. 76-86.

Mounia, B. C. (1997) Le Maroc à l'épreuve du temps mondial', Le temps mondiale, Complexe, Bruxelles, pp. 105-141.

Opaluwa, E. & Osasona, P. (2012) Sustainability in traditional African architecture: a springboard for sustainable urban cities, Sustainable Futures: Architecture and Urbanism in the Global South, Kampala, Uganda.

Örer, G. (1993) İstanbul'un kentsel kimliği ve değişimi. İTÜ Fen Bilimleri Enstitüsü.

Otmani, N. (2018) An Evaluation Of Housing In Casablanca, Morocco: Anfa Case. Bahçeşehir University.

Paasi, A. (2002) Bounded spaces in the mobile world: deconstructing 'regional identity', Tijdschrift voor economische en sociale geografie, vol. 93, pp. 137-148.

Peter, G. (2013) The Impact of the Enclaves on Spanish–Moroccan Relations, Europe or Africa? A Contemporary Study of the Spanish North African Enclaves of Ceuta and Melilla, Liverpool University Press, pp. 1-35.

Polat, S. (2011) A Method Proposed To Evaluate Archıtectural Identıty In Publıc Open Spaces: Bursa-Cumhurıyet Square Case, Uludağ University Graduate School of Natural and Applied Sciences Department of Architecture.

Relph, E, 1976, 'Place and Placelessness', Key Texts In Human Geography, Pion Limited, pp. 43-51.

Roth, L. (1993) Understanding architecture: Its elements, history and meaning. Boulder, CO: Westview Press. Sala.

Schaar, J. (2019) a Confluence Of Crises: On Water, Climate And Security In The Middle East And North Africa, SIPRI Insights on Peace and Security.

Sidenbladh, G. (1965) Stockholm: A Planned City, Scientific American, a division of Nature America, Inc.

Stacy, H. (2007) Constructing an Archival Cityscape: Local Views of Colonial Urbanism in the French Protectorate of Morocco, History in Africa, vol.34, pp. 121–132.

Tarik, H. (2017) Le programme des villes nouvelles au Maroc: rupture ou prolongement d'un urbanisme de rattrapage?, Revue Internationale d'Urbanisme.

The High Commission for Planning, (2014) Benslimane population.

The High Commission for Planning, (2014) Moroccan institution in charge of statistical production, planning, forecasting, analysis, Dakhla population.

The Ministry of National Spacial Planning, Housing, Urban Planning and City Policy, (2020) Promotion of an Eco-city in Dakhla.

The Ministry of National Spacial Planning, Housing, Urban Planning and City Policy, (2020) The city Benslimane, Eco-city.

Thompson, J. B. (1996) Tradition and self in a mediated world. Detraditionalization: Critical reflections on authority and identity. Cambridge, Mass: Blackwell Publishers.

Tomlinson, J. B. (1999) Globalization and culture. University of Chicago Press.

Uggia, Y. (2012) Construction of 'nature' in urban planning: a case study of Stockholm, The Town Planning Review.

UNESCO, (s.d.), whc.unesco.org. Récupéré sur Unesco world heritage Medin of Fez.

Wagner L. M. C, 2014, 'Rabat retrospective: Colonial heritage in a Moroccan urban laboratory', Urban Studies, vol. 51, pp. 3011–3025.

Weber, M.. (1964) Theory of Social and Economic Organization, trans. A. M. Henderson and T. Parsons. pp. 136-39

World Bank, (2016) World Bank Group Climate Change Action Plan 2016–2020. World Bank.

Wylie, D. (2018) Part of Who We Are: Using Old Buildings to Foster Citizenship in North Africa (Oran, Algeria, and Casablanca, Morocco), Buildings & Landscapes, Journal of the Vernacular Architecture Forum, University of Minnesota Press, vol. 25, pp. 44-63.

Yeang, l. D. (s.d.) Urban design compendium, homes and communities agency, English partnerships the housing corporation.