

A century of Jordanian architecture: narrating the development of the Nation

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Abstract

Purpose

As the Hashemite Kingdom of Jordan celebrates its first centenary, this paper presents a critical reading of the development of architecture in the Kingdom reflecting the transformation of national identity.

Design/methodology/approach

It achieves this aim by performing an analytical diachronic survey of the main architectural styles and trends that emerged in Jordan and links them to four main historical periods that characterize the national temporal trajectory; supported by examples of buildings, projects and architects that represent each period.

Findings

The results show the impacts of different forms of architectural modernism on local practice, and explore attempts to create a national architectural identity that range in their ideological drive from Pan-Arabism to Jordanian localism.

Originality/value

The research adds to the discourse on Arab cities and architecture and shows the development of architectural trends in an Arab Muslim country, focusing on the interaction of architectural modernism with local variables. It aims to supplement literature on Arab architecture with a critical and nuanced historical account of Jordanian architecture in the English language to serve a global audience.

Keywords: architectural history; architectural style; national identity; Jordan; Arab cities; built environment.

1. Introduction

This paper examines a case of formation of national identity through the lens of architecture as an instrument of social expression, by tracing the development of architecture in Hashemite Kingdom of Jordan throughout its history. Jordan has been frequently presented in literature as a product of colonial interests, bereft of an authentic past; a nation heavily influenced by tribal conflicts, political upheavals, critical lack of natural resources, and negative impacts of contemporary neoliberal policies. This paper presents a more nuanced narrative of nation building, looking at key moments in Jordanian history and the response of Jordanian society and architects. Selecting examples underrepresented in literature, the research highlights the early work of local, regional, and international architects in the country, and the agency and cosmopolitanism of local architects as they sought to merge modern concepts with local forms in attempts to produce locally rooted architectural identities. This paper aims to add a historical timeline to the architectural styles and trends presented in literature, and highlight the role of international as well as Arab architects in Jordan.

2. Conceptual and methodological frameworks: constructing a nationalist narrative through architecture and the built environment

Architecture, space and the built environment have long been considered an expression of social identity and power dynamics. The imagined reality of national identity – one of the core Modernist forms of social identities, requires State power and resources to maintain its illusion (Anderson, 1983), a strategy that has been discussed in depth in literature in terms of frameworks of power relations, representation of architecture as text, and theories of place (for example by Lefebvre, Bourdieu, Foucault, Heidegger, Harvey) (Dovey, 2014). In postcolonial contexts, national power dynamics operate within even more complex geopolitical frameworks (Said, 2008), requiring deeper dismantling of hegemonic constructs. In order to critically understand the development of architecture as a reflection of a nation, analysis needs to be advanced beyond studying the typologies of national civic monuments, or typological concerns of configuration of architectural form and function (Pandya, 2020), by incorporating a historical understanding of the development of styles and trends that shaped the architectural milieu and the architects and stakeholders involved.

A discussion of architecture as an expression of national identity and a product of modernity engages two critical questions: the question of relation to history, and the question of authenticity. As modernity calls for negation of history, it can cause cultural amnesia. Alternatively, it can also motivate nostalgic reactions and yearning for selective representations of a suitable past (Shryock, 1997). The concept of authenticity in architecture refers to the reality and truthfulness of an architectural product, a value made noble by both the Renaissance and Modernism; authenticity of a national identity would signify an identity that emerges from a collective that occupies a specific space of a nation, and thus be distinct and expressive of its context (Heynen, 2006).

Construction of national identity in Jordan is discussed at length in literature, addressing sources of its Muslim, Arab, and local roots, as well as reactions to modernity and globalization. The literature ranges in focus from issues such as the construction of a nationalistic oral history among Jordanian tribes (Shryock, 1997), construction of national symbols (Layne, 1989; Massad, 2001) and their propagation in school books (Anderson, 2001), to issues of museumification and heritage conservation (Maffi, 2000; Maffi & Daher, 2000).

Contradictions and politics of identity construction in the built environment of Jordan follow closely the dynamics of cities in the Arab world, as discussed for example by AlSayyad, Elsheshtawy and Rabbat (AlSayyad, 2001; Elsheshtawy, 2004; Rabbat, 2016). More specifically, several themes emerged in literature on Jordan, such as questioning the cultural identity of Amman as a city (Shami, 1996), addressing issues of socio-economic polarization in a neoliberal context (Ababsa, 2011; Hourani & Kanna, 2014), and exploring the role of citizen activism in transforming and negotiating urban identities (Daher, 2013).

Construction of national identity through architecture can be read in the discursive practices of the Jordanian built environment on several levels: the first level can be read through the buildings and landmarks that the State uses as part of its official representation, coding legitimation based on territorial histories and formalized national narratives (Malkawi, 1996; Rajjal, 2007), in addition to heritage sources (Rjoub, 2016). The unofficial imagery produced by local and international architectural professionals manifests more socially constructed notions of identity, and can be considered the second level. The majority of the stock of the built environment in Jordan, which constitutes a form of contemporary vernacular, is not intentionally conceptualized by architects, but rather produced by real-estate developers and private citizens, and can be considered a third level. Despite the significance of this level to understanding the bottom-up, informal character of local buildings, it does not entail sufficient architectural stylistic intent and falls outside the scope of this paper.

The first level is constructed through the official discourse of Jordanian nationalism, which is dominated by the push and pull among its three main identity poles: the head of the State - the Royal Hashemite Family, the Jordanian tribes, and citizens of Palestinian descent (Shryock, 1997; Anderson, 2005; Nanes, 2010). The State has long employed several pillars to support the legitimation of national belonging, of which three can be considered primary: constitutional legitimacy, legitimacy of the Arab Revolt, and religious legitimacy. The two latter legitimacies are specific to the national narrative of Jordan, and particularly to the ruling Hashemites (Rajjal, 2007). On one hand, the Hashemites led the Great Arab Revolt of 1916 against the oppression of the Ottoman Empire leading to the formation of the nation as the Emirate of Transjordan in 1921; on the other hand, the Hashemite family of Jordan presents itself as direct descendants of the Prophet of Islam – Muhammad. Sharif Hussein, the forefather of the ruling family, held the duty of Emir of Mecca that included caretaking of pilgrimage and protection of the most holy sites in Islam. This genetic lineage attributes an exclusive identity to the Hashemites that sets them apart from other Jordanians (Nanes, 2010), even if displaced from their original homeland in Hejaz. However, the Hashemites share de-territorialized belonging with the majority of Jordanian citizens – either displaced from Palestine or from Jordanian villages and cities in order to come to Amman. The nation thus becomes constructed not in terms of territorial belonging, but by virtue of loyalty to the royal family (Shami, 2007).

Building on these pillars, the state faces the ideational dichotomy of expansion versus contraction, constructing an identity that can be both globally accepted, and historically localized. Through the last century, the State has employed the built environment to provide visual cues to support this identity, ranging from projects of spatial planning, to major infrastructure projects, to more tangible

and more symbolically direct architectural works. Lying outside the scope of this paper are two crucial and highly politicized historical monuments that contribute substantially to the national narrative: the Treasury of Petra, which became an icon of a commonly agreed on “suitable past” that serves as a “mediator between the East and the West” (Maffi, 2000), and the Dome of the Rock, which in addition to Christian landmarks in Jordan, serves as the locus of the Hashemite role as Protectors of the Holy Shrines (Rajjal, 2007).

Contributing to an understanding of the second level, several studies examined architecture in Jordan, most notably Kultermann’s report on contemporary architecture in Jordan (Kultermann, 1991), and the unpublished architectural map of Amman compiled by Cejka, Sakr and Jayyousi (Cejka et al., 1983). Two English publications in particular discussed architectural styles and can be considered as a starting point for an analytical method: Fethi and Mahadin (1996) and Dahabreh (2020). Fethi and Mahadin surveyed the architecture of villas in West Amman (the affluent part of the city), and proposed six stylistic classifications: modern style, post-modern style, Islamist style, cottage style, Classicist style and eclectic style (Fethi & Mahadin, 1996). On the other hand, Dahabreh included additional architectural typologies in his analysis of the architecture of the same territory; such as, corporate, healthcare and municipal buildings and presented an updated critical classification of seven stylistic categories based on visual characteristics:

1. International Architecture: employing simple and clear forms, with heavy use of glass and structure, adapting the machine aesthetic of Modernism;
2. Eclectic Architecture: incorporates various ornamental elements belonging to a variety of time periods and styles, without a clear identity or visual coherence;
3. Neo-Vernacular Architecture: borrows from the vernacular visual impact and use of locally-sourced materials in an attempt to adapt it to tangible cultural heritage;
4. Regionalized Modernism: approaches modern architectural theories and adapts them to respond to a particular region’s climate, setting and culture. It incorporates local tradition while remaining firmly based in modern aesthetics and principles;
5. Experimental Regionalism: adapts traditional applications to contemporary needs, through manipulating and distorting the architectural image of the past and transforming it in ways that fit modern-day requirements;
6. Neo-Traditional Architecture: borrows and copies elements of traditional architecture of the region creating a sense of continuity of the past and maintaining a traditional image;
7. Contemporary Formal Architecture: employs simple geometric forms and clean lines in design, as well as new materials such as wood and glass in their interior and exterior (Dahabreh, 2020).

Both classifications touch on the duality of stylistic expansion and contraction, and different reactions and interactions of the global and the local. However, neither classification addresses the building of a national identity through architecture in Jordan in general, nor follows a historical trajectory.

This research aims to perform an analytical diachronic survey of architectural styles and trends of primarily public buildings produced by architectural professionals in Jordan in the last century and link them to the historical phases of the national temporal trajectory, as well as the transformation of global architectural styles, worldviews and local and global events. The analysis offers a critical

overview of architectural development, aiming to illustrate and understand the development of the national architectural character and trace different socio-political influences, as well as impacts of technological and paradigmatic transformations. The research draws on the analytical categories of Dahabreh (2020) as well as on numerous studies of architecture in Jordan in both the English and Arabic languages that did not offer stylistic categories per se (Kultermann, 1991; Abu Ghanimah, 2003; Shawash, 2003; Tuqan, 2003; Hammad, 2003; Rajjal, 2007; Rjoub, 2016). Key paradigmatic turns in architecture are also reflected in the stylistic progression; the Spatial Turn is by default reflected in postmodern styles that re-emphasized the relation of architecture and place, while the more recent Digital Turn is reflected in styles such as Parametricism (Carpo, 2013).

The analytical survey of styles conducted herein is illustrated by cases that represent official and unofficial architectural imagery as well as dominant styles of each period, focusing on buildings that were not made visible in literature on architecture in Jordan so far. Although the case selection aims to address examples from the entirety of Jordan, the role of Amman as a capital and a prime city, weighs the balance of architectural development, as well as availability of data sources in its favor. The paper also investigates other manifestations of architecture, such as projects of urban design and planning, as well as architectures of emergency that evolved in response to the political turmoil in the region. As such, the selection of cases undergoes a sequence starting with 'Phase of historical trajectory', then 'dominant style/trend', then 'example' representative of moments of the historical architectural narrative. Diagrams of the examples illustrate the building massing, composition, and proportions of solid and void. Diagrams were produced for this publication by the authors, based on desktop research or based on digital CAD data provided by the design or documentation architects. The reference is mentioned where an image is taken from a source. In the course of the text, names of buildings are followed by the date of building, for example: Terra Sancta College (b. 1949).

The historical trajectory under study comprises four discernable phases:

1. The first phase is the period of the Emirate, beginning with the establishment of the nation in 1921 and ending with its independence in 1946. Growth of the built environment and architectural development in this phase were slow and limited, focusing on providing the basis for the new nation.
2. The second phase spanning from late 40s till the 70s, witnessed several monumental events: independence, change of monarchs, two Arab-Israeli wars and the following exponential increase of population due to the influx of hundreds of thousands of Palestinian refugees. The tremendous pressure to accommodate the newcomers and modernize the state was aligned with the graduation of the first Jordanian architects and engineers who studied in Cairo and Beirut and brought with them the spirit of modernity and experimentation. Despite the political, economic and social impacts of the wars, this phase focused on nation-building and left a legacy of modernist architectural landmarks.
3. The third phase is the phase of the Oil Boom spanning the 70s through the 90s, where an economic boom and influx of Jordanian architects educated in Europe and the USA paved the way for postmodernity and experiments in developing a more regionalized and locally relevant architectural identity.
4. The fourth phase can be traced to late 90s and 2000s - a period of globalization, neoliberalism and opening up to the world. Coupled with an economic boom in the region, this period witnessed the conception and implementation of major national projects

characterized by global stylistic approaches and a strive to produce “iconic architecture”. However, in the aftermath of the global economic recession of 2006, the Arab Spring, the latest influx of refugees escaping the turmoil of the Syrian Crisis and COVID-19, architectural discourse in Jordan turned to focus on refugees and accommodation in times of crisis. Despite the challenges, numerous architectural accomplishments were achieved in this phase, such as embracing green buildings, digital solutions, construction of truly contemporary and sophisticated buildings, and production of new forms of globally renown, locally rooted architecture.

3. Four phases of architectural development in Jordan in relation to its national identity

3.1. *First Phase – Establishment of a new nation and continuity of architectural typologies, 1921-1946*

As the Great Arab Revolt advanced into the territory of North Hejaz and Southern Syria in 1916 - what constitutes modern Jordan, it found well established cities such as Kerak, Salt and Irbid, multiple villages and domains of the Bedouin clans. The settlement in these cities and villages dated back hundreds of years, and lay in subsidiary continuity with Palestine, Syria and the Hejaz. In its progress, the Revolt reconfigured the symbolic landscape of the built environment, bestowing significance to the main stations on the way: Aqaba, Ma’an, Amman, eventually leading to the spatial reconfiguration of the territory by designating Amman as its main station.

Transjordan was first recognized as a separate independent state on April 11th 1921. Even though it was under direct British Mandate, a new government called for the restructuring of former Ottoman administrative institutions and setting up of new ones to oversee the building of the capital and the new nation, thus leading to the creation of the Public Works Department in 1923 and Municipalities to manage cities. Roads were built and basic infrastructure provided, yet due to the slow growth and lack of funds, most of the governmental services were hosted in rented private residential buildings (Shawash, 2003).

The architecture of Jordan at this early period represented continuity of architectural typologies of Greater Syria and Hejaz and consisted of Levantine typologies such as the three-bay model for urban areas (Ragette, 1974), Palestinian village house typologies for rural areas (Khammash, 1986) (Ragette, 2003), and Ottoman structures such as sarays, public schools, and the Hejaz Railroad stations.

The continuity of architectural typologies is exemplified in the design of Raghadan Palace (b. 1923-26), built according to the traditional three-bay system, showing the refinement of Levantine models in the exterior treatment: the use of delicate triple arch windows, pitched tile roof for the main mass and *ablaq* black and white stone at the entrance. The model however was impacted by western influences through the introduction of the grand staircase leading to the Throne Room.

As for the colonial capital, it lay towards the vicinity of Marka-Mahatta area comprising of a military camps close to the train station and the airfield. The building interventions in these locations were modernist and simple in character, but the residence of the Chief British Representative (CBR) built in adjacency to the Royal Palace and designed by Austin St. Barb Harrison in 1926 was quite unique. Harrison was educated in the Beaux-Arts tradition and had great interest in the architectural history

of the Near East. He thus synthesized different architectural elements of the region, such as the *iwan*, simple cubic masses, small openings and use of stone for structural purposes, in a modernist structure rich in regional connotations (Shawash, 2003).

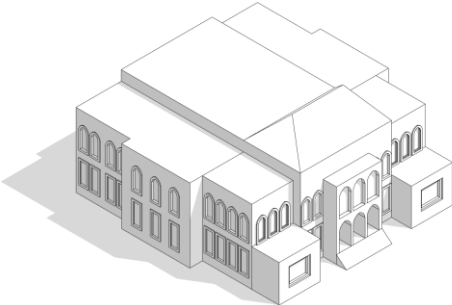
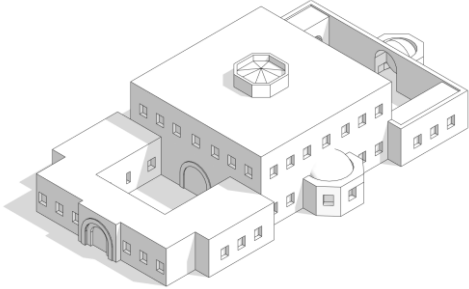
First Phase 1921-1946		
<i>trend/style</i>	Continuity of local traditional typologies (three-bay house)	Modernist interpretation of Near Eastern typologies (nine-square plan)
		
<i>project name, date</i>	Raghadan Palace, 1924	Residence of the CBR, 1926
<i>architect</i>	Master-builder Sa'd Eddine Shatila al-Dimashqi	Austin St. Barb Harrison (UK)

Table 1: architectural trends exemplifying the First Phase (1921-1946)

National belonging and legitimation of state authority was initiated early on by the British, who attempted to bring tribes under control through provision of modern infrastructure, police stations and postal services across the country. Despite the initial rejection of these interventions, they visibly engrained the symbolic presence of the state as the ultimate holder of political authority in territories outside urban and rural settlements (Endelman, 2015). Nevertheless, infrastructure provision remained politically problematic and roused strong nationalist loyalties and activism, as exemplified by electrification projects built around 1930s (Jarrar, 2020).

3.2. Second Phase – Modernity and Nation Building against all odds, 1946 - 1973

The period of late 40s and 50s witnessed a slow transition from traditional architectural styles to more modern approaches. The growing bourgeoisie of Palestinian and Syrian merchants in Jordan contributed to proliferation of residential villa typology, especially in West Amman. The State did not yet have the means for a thriving public building program, focusing instead on provision of core necessities, and deriving spatial presence by exhibiting itself via parades and ceremonial displays in city spaces (Rogan, 1996).

The beginning of this period produced several public buildings funded by public and private means: the Old Municipality Building in front of the Roman Theater, the Central Post Building, and Al-Hussein College, all located in Amman and designed in late 40s by the architect Fawwaz Mhanna. These buildings employ the vocabulary of using large stone units, bearing walls and small openings, with simple decorative motifs in stone. The introduction of structural steel allowed for larger spans, and the transformation of the wall from a solid two-dimensional plane into an interface between the interior and the outside world. Early modernist treatments can be especially noticed in the architecture of missionary schools such as Terra Sancta College (b. 1949) and College de la Salle

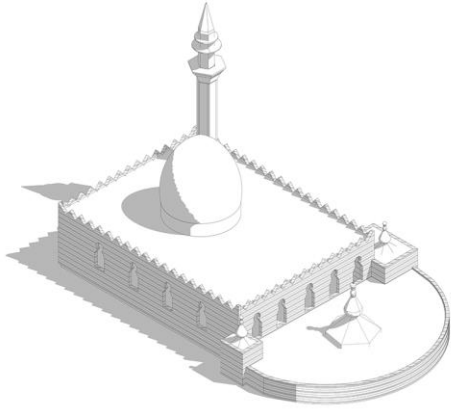
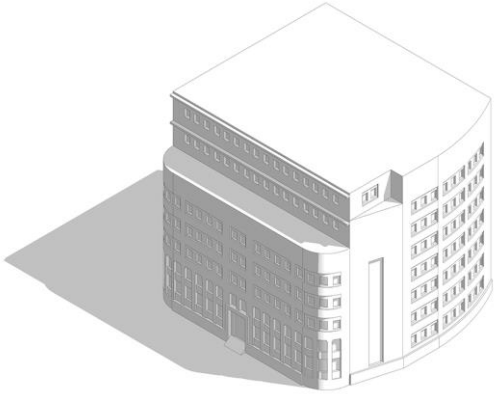
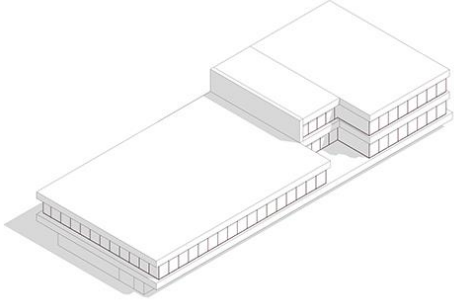
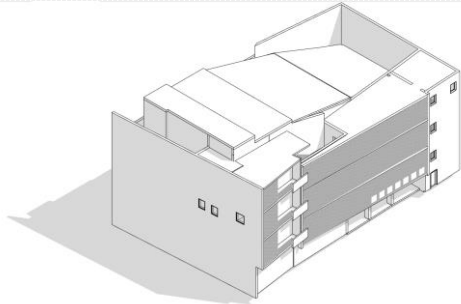
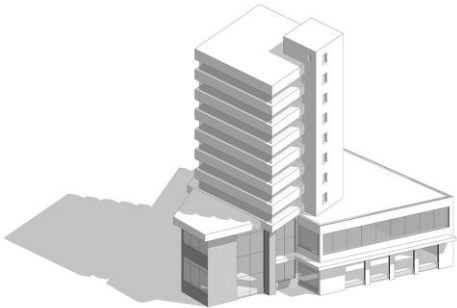
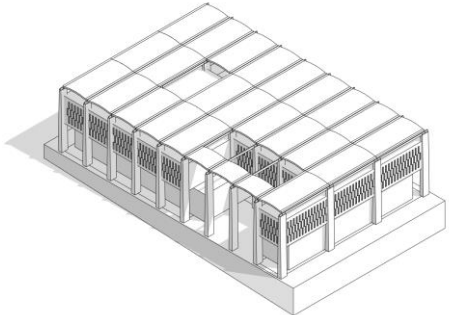
(Freres) (b. 1950) designed by Tawfiq Marrar, despite the dominance of traditional principles such as three-partite division, symmetry and strong cubic forms (Tuqan, 2003).

The 1950s witnessed the transformation of architecture in Jordan from a craft into a professional industry (Tuqan, 2003), with the issue of the first law for professional practice in 1953, and the establishment of the Association for Engineering Professions in 1958 (transformed into Jordan Engineers' Association in 1960) (Abu Ghanimah, 2003). In the meanwhile, formally educated Jordanian architects returned from Egypt and Lebanon, having experienced life and work in metropolitan capitals. Many of these architects are considered modernizers (*mujaddedin*). Architects such as: Nathmi Al-Nabulsi, Fu'ad El-Sayegh, Hani Arafat, Zuheir Al-Sha'ir, Abdulrahman Al-Bitar, Shukri Qub'ain, Tal'at Kawaleet established major architectural offices and collaborations in Jordan and Palestine. Notable among his peers was Ja'far Touqan, who graduated from the American University in Beirut in 1960, and engaged in projects in Jordan, Lebanon, Palestine and the Gulf, as well as in collaboration with Dar Al-Handasah in Beirut in the period 1961-68. Later, he established his private practice in Lebanon with George Rais, and upon the beginning of the Lebanese Civil War in 1973, another independent office in Amman. His long and productive career spanned across the following phases.

These architects joined the ranks of famous practitioners without formalized education, who were ordained the title of (*mujaz*) and had significant architectural contributions in Jordan and Palestine, such as Subhi Al-Kilani (built Abu Derwish Mosque and the Little Bilbeisi Palace). Another well-known practitioner was Diran Voskeritchian, responsible for Zahran Palace, the Arab Bank Headquarters in the center of Amman, and the Jordan Petrol Refinery Headquarters in Jabal Amman. His style in the 50s resorted to the use of consolidated masses, with stone as a primary building material, openings were small and coupled with simple but refined detailing. In the 60s, his work was more influenced by the West – especially the principles of the Bauhaus, through the use of curtain walls consisting of glass facades and steel structures, for example in the building of Abu Sham in Jabal Amman, as well as some buildings within the Campus of the University of Jordan (Hammad, 2003). Atallah Doany also contributed to the University of Jordan by designing the masterplan linking the university to the Royal Scientific Society, and designing the School of Arts (b. 1964), the Entrance Gates (b. 1965), the Central Library (b. 1969) and the Medical School and Hospital (b. 1973), as well as the University Mosque (b. 1968-80), which presented a modernized version of Islamic tradition with Ottoman influences (Kultermann, 1991).

Likewise, well-known Arab architects left their mark on Jordan. Sayed Krayyem, the Egyptian architect and educator, developed a distinguished personal style exemplary of the Egyptian modern school, possessing a spirit of modernity reminiscent of Le Corbusier and Oscar Niemeyer with playful Art Nouveau stylistic additions. Of his most distinguished projects in Amman are Al-Hussein and Al-Khayyam Cinemas, where he employed colorful ceramics, vivid colors, and dramatic forms. Krayyem's style influenced several early Jordanian architects educated in Egypt, such as Hani Arafat and Abdulrazzaq Al-Muhtady. Other Arab architects, such as the Lebanese George Rais and Theo Canaan designed numerous modernistic villas in Amman, while Khalil El Khoury was responsible for the design of Jordan Insurance building in 1961 (Tuqan, 2003).

Foreign architects also contributed to stylistic development in Jordan, steering it not only in the direction of International Style Modernism, but also attempting to localize it by representing national symbols, such as the tent, as in Paul Rudolph's unrealized proposal of 1954 for the Embassy of the United States, and the Cultural Palace designed as part of Al-Hussein Youth City by Munce and Kennedy (b. 1963). In his design of the Jordanian Archaeological Museum in 1951, Austin St. Barb Harrison, of the Mandatory Government of Palestine, abided by modernist simplicity, yet employed architectural vocabulary associated with the mandatory government in India (such as narrow windows and protruding shading devices popularized by Le Corbusier) thus adding a symbolic British colonial layer on a building housing the history of the newly independent nation.

Second Phase 1946-1973	
<i>trend/style</i>	<i>Modernized continuity of regional influences (mujazin)</i>
<i>project name, date architect</i>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Abu Derwish Mosque, 1961 <i>Subhi Al-Kilani</i></p> </div> <div style="text-align: center;">  <p>Arab Bank Headquarters, 1950s <i>Diran Voskeritchian</i></p> </div> </div>
<i>trend/style</i>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"><i>Modernism (mujaddedin) Bauhaus influences</i></div> <div style="text-align: center;"><i>Eclectic Modernism by Arab architects</i></div> </div>
<i>project name, date architect</i>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Central Library at the University of Jordan, 1969 <i>Atallah Doany</i></p> </div> <div style="text-align: center;">  <p>Al-Khayyam Cinema, 1960s (data courtesy of Jana Abou Nasr) <i>Sayed Kravayem (Egypt)</i></p> </div> </div>
<i>trend/style</i>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"><i>International Style by Arab architects</i></div> <div style="text-align: center;"><i>Modernism</i></div> </div>
<i>project name, date architect</i>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Jordan Insurance Building, 1961 <i>Khalil Al-Khourri (Lebanon)</i></p> </div> <div style="text-align: center;">  <p>Proposal for the Embassy of the United States, 1954 <i>Paul Rudolph (USA)</i></p> </div> </div>

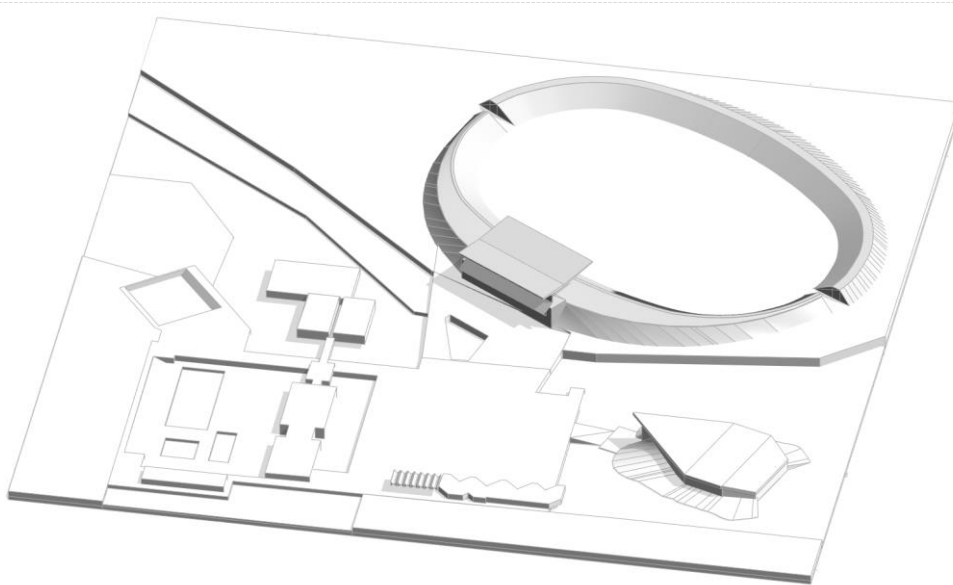
<i>trend/style</i>	Modernism
<i>project name, date architect</i>	 <p>Al-Hussein Youth City, 1963 Munce and Kennedy (North Ireland)</p>

Table 2: architectural trends exemplifying the Second Phase (1946-1973)

As Jordanian cities – Amman in particular – witnessed exponential growth during this period, the urban fabric transformed from close-knit organic traditional forms into more modern structures. With the introduction of zoning regulations and imposition of setbacks in residential districts, the independent villa type proliferated, disrupting continuous urban fabric and street facades associated with old cities, to the chagrin of Jordanian architects and urbanists (Tuqan, 2003). Enclosing the seasonal stream of Amman – the Seil - under a road, was another project that facilitated the modernization of the city, and was criticized by contemporary architects (Daher, 2015). The building of the modern nation continued despite the political turmoil in the region, and major infrastructure projects were implemented: East Ghor Main Canal in 1959, Aqaba Highway in 1960s, industrial areas, water dams in the Jordan Valley, Al-Hussein Power Plant in 1973, as well as major cultural, sports and educational institutions.

In the West, Jordanian architects also had an impact, as exemplified by the Salt-born architect – Victor Bisharat. A graduate of the American University in Beirut, as well as University of California, he established his practice in the USA, where his work included the Landmark Square Tower, the Marriott Hotel and the St. Johns Towers in Stamford. He proposed a design for the Queen Alia International Airport in Jordan, which was not implemented. However, his proposals for the Jordan Pavilion at the 1964 World’s Fair in New York were built, as well as his designs for the Martyr’s Memorial in Amman in 1977. His architectural career was rich with experimentation and cross-influences by other modernist icons.

3.3. Third Phase –Oil Boom and post-modernity, 1973-1990s

The Oil Boom that instigated this period led to a surge in building industries and influx of capital into Jordan supported by the remittances of a new class of Jordanian professionals working in the countries of the Arab Gulf. On the level of individual residential buildings, this affluence led to

construction of bourgeois architecture marked with formal and structural “acrobaticism” influenced by the architecture in the Arab Gulf (Fethi & Mahadin, 1996).

On the other hand, this period witnessed continuity in building major landmarks by international companies, further opening the Jordanian construction market to the world; examples are: the Comprehensive Commercial Center, known locally as the Burj Building and designed by Consorzio Trocon Percoco (b. 1979); Faculty of Engineering at the University of Jordan by the American company Heery and Heery (b. 1982); Queen Alia International Airport (b. 1983); Royal Cultural Center (b. 1983); and the Housing Bank commercial and hotel complex by the Korean Ssangyong Company (b. 1984). In most cases international companies worked parallel to Jordanian engineering practices as in the Royal Geographic Center designed by the French architect Roger Taillibert and constructed by Sigma Consulting Engineers (b. 1984) (Kultermann, 1991). These projects were characterized by strong horizontal lines, simple forms, and Brutalist stylistic influences.

This period also witnessed the emergence and consolidation of major Jordanian architectural offices such as Dar Al-Omran (in 1979), Arabtech-Jardaneh (in 1992), Consolidated Consultants (restructured in 1993) to name a few. However, architectural development in the period was directed by talented individual local and foreign architects, who were already moving away from modernist rationales and searching for a basis for a national identity for Jordanian and Islamic architecture.

In the aftermath of the Iranian Islamic revolution of 1979, a drive to develop a local Islamic identity and Islamize local built environment led to legislating specific architectural features, such as pointed arches, arcaded galleries in commercial areas, and white facades, with most notable examples seen in the galleries of Quraish Street in the city center of Amman. Although these attempts did not catch on, the philanthropic drive for mosque building produced an opportunity for experimentation with an Islamic typology and its proliferation in neighborhoods (Rogan, 1986).

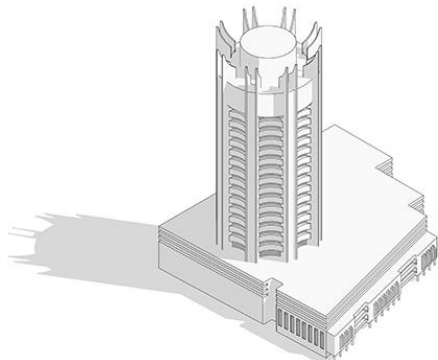
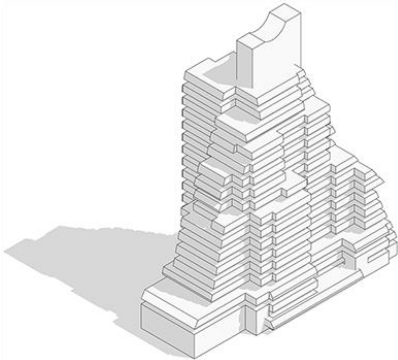
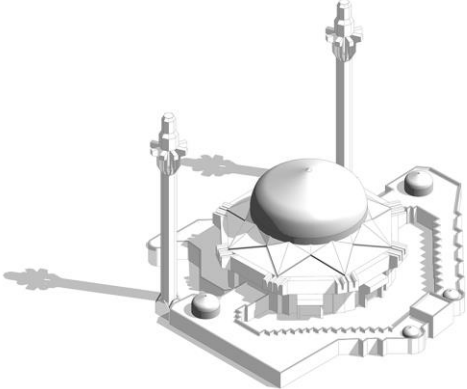
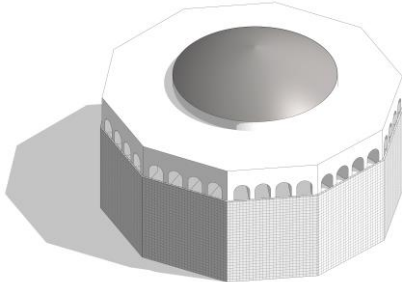
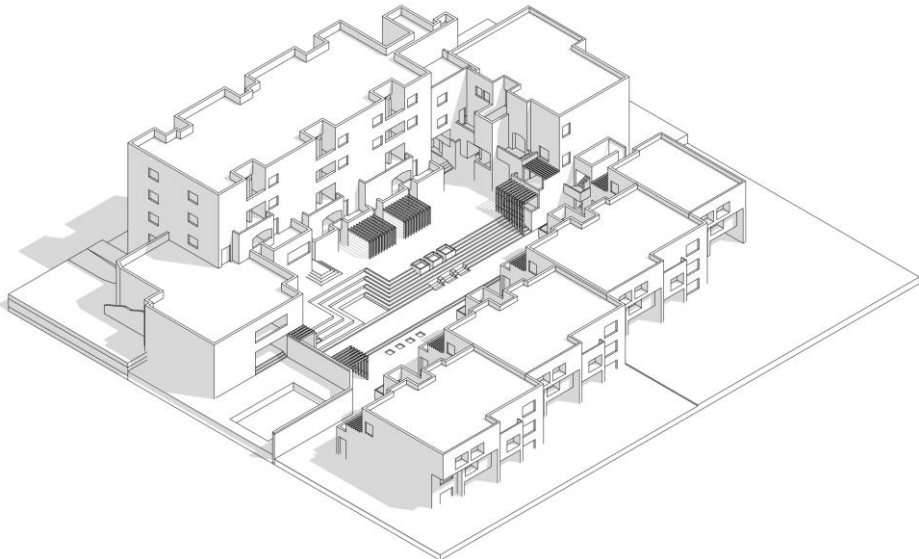
International architects, such as the Italian Paolo Portoghesi, Japanese Kenzo Tange and the Czech Jan Čejka, attempted to create designs in which “the essence of the country is identified with its tradition”, thus rooting the national identity in its regional Arab Islamic past. Paolo Portoghesi proposed a design for the Royal Courts in Amman (1973-75, not implemented) based on the Graeco-Roman past and the proto-Islamic architecture of the Dome of the Rock and that of the Islamic Castles of Jordan (Kultermann, 1991).

In another example, the campus of the Jordanian University for Science and Technology was designed by Kenzo Tange in collaboration with Jafar Tukan in 1976. The plan was laid out according to the principles of Islam, in harmony with the local environment and culture, yet reflected Tange’s rational and metabolic use of grids as an organizing framework. Locating the mosque of the university in 1981, its architect Raif Nijem moved it away from the center emphasizing the diversity of subjects to be taught in the new setting. The design itself articulated the prayer hall by complex forms produced by intersecting octagonal levels. Jan Čejka, a long-time educator at the Department of Architecture at the University of Jordan, collaborated in the design of King Abdullah I Mosque with the Jordanian office Suboh, producing an iconic modern structure with a central reinforced concrete dome. The blue color, abstracted geometries and thin, tall minarets borrow from Islamic and Ottoman heritage in an interpretation contemporary to the time.

Local architects, however, were experimenting with localizing architectural identities on a more nuanced and detailed scale. In addition to the experimentation of Jafar Tukan, the Jordanian architect Rasem Badran developed his own architectural identity and contributed to shaping the architecture of the region. Having graduated from the Technische Hochschule in Darmstadt – West Germany in 1970, he went on to establish his own firm in Amman. Drawing on precedents from Arab cities and villages, Badran created an “exciting contemporary version of Islamic architecture” (Kultermann, 1991), incorporating it in individual residential buildings such as Villa Handal (b. 1975-77) and bigger housing projects such as the Public Security Housing (b. 1981). Badran focused on conveying the massing of the traditional Arab city, especially influenced by Jerusalem, in addition to providing the intimate and surprising pathways and spaces in residences and residential alleys, re-establishing the continuous architecture of the Islamic traditions.

Other architects such as Waddah El-Abidi, Talaat Kawalit and Bilal Hammad were also contributing to the architectural scene. Waddah El-Abidi was educated in Alexandria and developed an idiosyncratic architectural character in his buildings with the use of abstract masses and angular geometries in stone. His projects include residential projects such as Oudeh Residence (b. 1980) and the Anani Residence (b. 1982); office and apartment buildings including the Shelbayeh Apartments (b. 1976), and the Abu El-Ragheb Commercial Centre in Amman. Talaat Kawalit (who became one of the founding partners of Arabtech Jardaneh) contributed the design of the Jordanian Parliament in 1980, in the shape of a monumental polygonal structure covered by a dome, with proportions and geometries reminiscent of the Dome of the Rock (Rjoub, 2016). Bilal Hammad, also a graduate of the Alexandria School of architecture, began his practice in Amman in 1977, designing notable projects such as Mish'al Residence (b. 1980) and Al-Ribat Housing (b. 1982).

The period of 1970s and 80s can be described as one of continuous maturation of the Jordanian architectural character. This was especially aided by the Government’s focus on provision of low-cost housing in the five-year-plan of 1980. In addition, collaborations between Jordanian and foreign architects led to the fulfillment of landmark projects of national significance. Projects such as the National Assembly and the State Mosque aimed to express a modernized national identity rooted in historical Islamic and Arab symbolism (Kultermann, 1991).

		Third Phase 1973-1990s	
<i>trend/style</i>	Brutalism		
			
<i>project name, date architect</i>	The Burj Building, 1979 <i>Consorzio Trocon Percoco (Italy)</i>	Housing Bank commercial complex, 1984 <i>Ssangyong Company (Korea)</i>	
<i>trend/style</i>	Post-modernity: Regionalized Modernism		
			
<i>project name, date architect</i>	King Abdullah I Mosque, 1983 <i>Jan Čejka (Czech) & Suboh</i>	Jordanian Parliament, 1980 <i>Talaat Kawalit</i>	
<i>trend/style</i>	Post-modernity: Neo-traditionalism		
			

<i>project name,</i> <i>date</i>	Al-Ribat Housing, 1982 (data courtesy of Bilal Hammad Architects)
<i>architect</i>	<i>Bilal Hammad</i>

Table 3: architectural trends exemplifying the Third Phase (1973-1990s)

Conservation of the built environment was another dimension occupying Jordanian architects in this period. Although the Department of Antiquities was established in Jordan as early as 1928, and the law for the protection and conservation of archaeological sites was passed in 1934, they only addressed monuments built before the year 1750. The emergence of tourism as a prime economic driver in 1960s brought preservation of historical buildings to the fore. Major projects of conservation and reuse of archaeological sites were implemented, such as the conservation of Nabatean archaeology in Petra and Roman sites in Um Qais. Heritage buildings constructed after 1750, not protected by a dedicated law until 2005, also gained the attention of local architects, who implemented conservation and re-use projects such as Darat Al-Funun Arts and Culture Center by Ammar Khammash in 1993, Founders Palace Museum in Ma’an and Abu Jaber House Museum in Salt by Turath and Tibah Offices (Shawash, 2011).

The beginning of the 90s witnessed the Iraqi invasion of Kuwait and the subsequent USA led retaliation and embargos imposed on Iraq that led to major shifts in the power dynamics of the region. In addition to the hundreds of thousands of Iraqis who arrived to Jordan seeking refuge, Jordan received major Iraqi investors who left a permanent imprint on the skyline of the capital. Le Royal Hotel, designed by the French architect Richard Martinet of Affine Design for the General Mediterranean Group, representing the famous Abbasid Minaret of Samarra, was constructed in the period 1996-2002 and was considered for a long time the tallest building in Amman at 29 floors.

3.4. Fourth Phase – Opening up to the World, 2000-today

Jordan entered an era of hope and expectation as its economy boomed between 2000-2006, paving the way to neoliberal urbanism (Daher, 2013; Hourani & Kanna, 2014). Multiple iconic mega-projects by international “star architects” were planned. Some examples progressed into design and construction phases, only to be hit with the economic recession of 2006 and remain unrealized until today, such as the Parametricist ‘King Abdullah II’ House of Culture and Art (Amman’s Opera House) by Zaha Hadid architects in 2008, the Living Wall by Foster+Partners and Maisam Architects in 2006, and Sanaya Limitless Towers by JAHN Murphy Architects in 2008.

Amman actively sought to regenerate areas of high potential, providing hubs of socio-economic vitality as well as much needed public space and green areas. Some plans remained on paper, such as the multiple proposals for the Wadi Amman – Urban Strip area, while others were implemented to different degrees of success, such as the regeneration of the Roman Theater Forum area (by Lovejoy Landscape Architects, Sanabel Landscape Architects and Yaghmour Architects), new Raghadan Terminal (Tibah Consultants), Downtown regeneration project, Wekalat Street in Sweifiyah, and Rainbow Street in Jabal Amman (designed by Turath Consultants). International development grants and loans catalyzed similar projects in other cities, such as the Regional and Local Development Project 1 and 2 (managed by the Ministry of Local Affairs), and Jordan Tourism Development Project – Siyaha (2005-2008), which contributed to the regeneration of historical centers of five cities geared for tourism development. Private residential developments and gated communities in Aqaba and the Dead Sea were also seen as prime resources for investment and tourism (Ababsa, 2014).

The influx of capital also brought with it a demand for high rise buildings and sophisticated office and residential space of global caliber. Greater Amman Municipality (GAM) worked hard to incorporate these demands into the Masterplan of the city for 2008 in alignment with the city vision, but some cases escaped this rationale; namely, al-Abdali project and the Jordan Gate Towers, which came to be considered agents of commodification, as well as instigators of gentrification, social exclusion and privatization of public space (Daher, 2013). The site of the notorious Jordan Gate Towers near the Sixth circle on lands acquired by GAM in Amman was conceptualized in 2004 as the Royal Village, a complex for luxurious urban living, though never implemented. The towers were eventually designed by Jafar Tukan & Partners as a luxury residential and commercial complex. Construction began in 2005, and faced multiple financial, structural and construction incidents, only to be suspended in 2011 due to financial problems (Abu-Hamdi, 2019). On the positive side, Al Abdali mega-project had a great role in putting Amman on the map as a globalized city, and the towers constructed in al-Abdali, commissioned by local Jordanian firms (eg. Consolidated Consultants Group, Faris & Faris, Maisam Architects) achieved a landmark quality.

Joining the global markets invited a boom in building shopping malls in Amman and other major Jordanian cities; Mecca Mall (b. 2002) being one of the earliest examples, and Taj Mall (b. 2012) one of the largest. The dominance of the shopping mall was on the expense of established commercial quarters and catered for new consumeristic lifestyles, critiqued for their socio-economic polarizing effects. Their contribution to the built environment and architecture was also problematic, as is the case with enclosed shopping malls worldwide.

Following global architectural trends required implementation of innovative structural systems to produce designs that defy gravity and project striking dynamism. Examples of such landmarks include the Housing Bank headquarters by NBBJ (b. 2014), as well as the Royal Jordanian headquarters by Niels Torp (b. 2012), both implemented by Arabtech-Jardaneh group. The Abdoun Bridge is also an example of structural innovation, designed by Larsen & Toubro and completed in 2006 in collaboration with Dar al Handasah, a leading Arab firm in Jordan, as structural consultants.

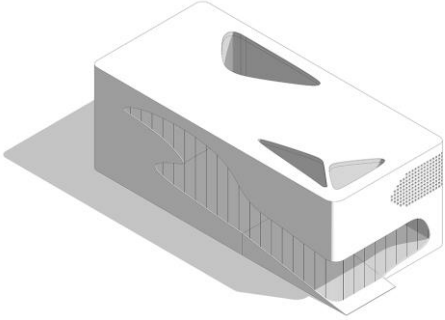
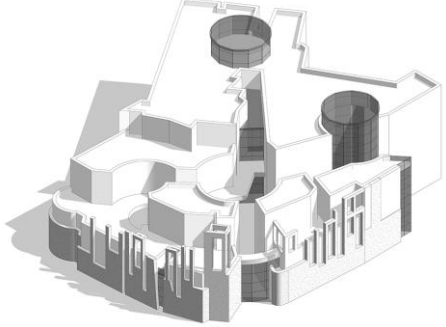
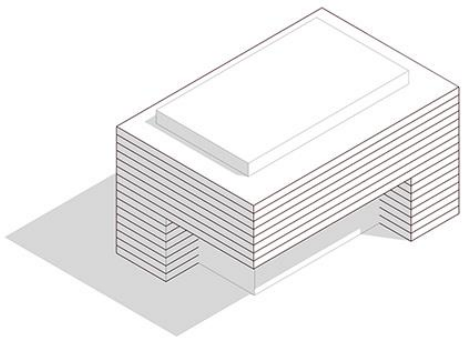
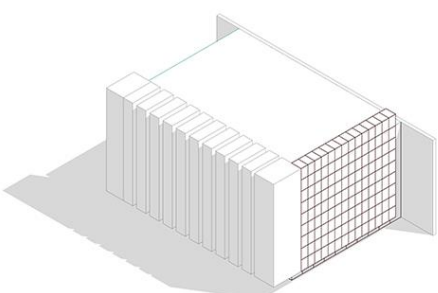
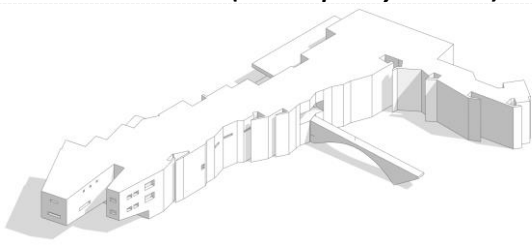
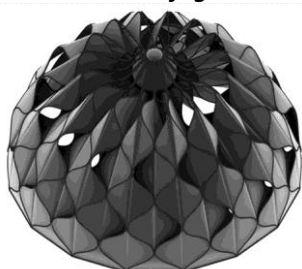
Jordan's architectural innovation was also applied to environmental sustainability, for example, the Embassy of the Netherlands in Amman, was awarded the LEED Silver certificate in 2010, becoming Jordan's first green building (United States Green Building Council, 2010). Shortly after in 2013, both the Middle East Insurance Company designed by the Jordanian architect Faris Bagaeen, and the World Health Organization (WHO) Regional Office Building in Amman designed by EngiCon received the LEED Gold Certificate. In 2018, the Izzat Marji Group Headquarters, designed by Al-Nasser+Partners, was awarded the LEED Platinum Certificate, setting a new standard for green architecture in the Kingdom.

Innovation in environmental sustainability can also be traced in the neo-vernacular approach, which draws on traditional values and construction techniques, by localizing contemporary architecture through adapting local materials and practices. This approach especially suited the sector of cultural tourism as seen in the prolific work of Ammar Khammash, such as Feynan Eco-Lodge (b. 2002), the Royal Academy for Nature Conservation (b. 2014, shortlisted for the Aga Khan Award for architecture in 2016), Wild Jordan Centre (b. 2001), and Wadi Al Mujib visitor centre (b. 2014).

Amman Bus Rapid Transit (BRT) project was a major infrastructure investment in the first decade of the 21st century (Greater Amman Municipality, 2021). The lead consultant for the project is UK-based firm Steer Davies Gleave, infrastructure works are implemented by Sigma architects, while architectural works are designed and implemented by Tahhan and Bushnaq Architects. Four terminals have been completed by 2020, which are Sweileh BRT Terminal, Jordan Museum BRT Terminal in Ras al Ain, the station at the Sports City Intersection, in addition to Queen Rania Street (The Jordan Times, 2021).

References for architectural identification and inspiration in this phase are diverse and globalized, as both the local and the international architects use universal architectural vocabulary or attempt to ground the language of the building in local references. For example, in the design of Queen Alia International Airport (b. 2013), Foster+Partners were inspired by traditional Bedouin tent structures and employed a flexible modular dome solution that allows for future expansion (Foster+Partners, 2012). This approach can be considered an adaptation of “regionalized-modernism” (Dahabreh, 2020). On the other hand, some Jordanian architects expressed their cultural connotations in a more abstract manner producing what Dahabreh (2020) called “contemporary formal architecture”, as in the work of Sahel Al-Hiari, who arranges pure volumes in innovative ways, so they become sculptures in their own right. His residential works include Shaban House (b. 2005) and Saket house (b. 2015).

Jordanian national identity is based in part on being a peace-maker in the region, as Jordan received waves of refugees across the decades, and repeatedly mediated peace efforts. The refugees with arguably the most impact on the urban fabric and architecture of Jordanian cities were Palestinian, generating camps and squatter settlements upon their arrival in the aftermath of wars of 1948 and 1967. As these settlements developed into mature neighbourhoods in the city, some of them showcased innovative solutions to develop residential units in an incremental manner, as in the case of the East Wehdat Camp which received the Aga Khan award in 1992. At the forefront of humanitarian response during the Syrian crisis of 2011, Jordan provided Al-Za’tari (established in 2011) and Al-Azraq (established in 2013) refugee camps that led the effort in deploying emergency architecture. Camps were planned as small entities, and rapidly grew into dynamic quasi-urban settlements providing refugees with the necessary means for a dignified life (Dalal et al., 2018; UNHCR, 2022a; UNHCR, 2022b), while their white prefabricated structures and textiles printed with the logo of the UNHCR became part of everyday imagery consumption in Jordanian media.

Fourth Phase 2000-today		
<i>trend/style</i>	<i>Iconic architecture/ Parametricism</i>	<i>Global trends for neoliberal economies: shopping mall architecture</i>
		
<i>project name, date architect</i>	King Abdullah II House of Culture and Art (Amman's Opera House), 2008 <i>Zaha Hadid Architects (UK)</i>	Taj Mall, 2011 <i>Arabtech Jardaneh</i>
<i>trend/style</i>	<i>Structural innovation</i>	<i>Green architecture (LEED certified)</i>
		
<i>project name, date architect</i>	Housing Bank HQ, 2014 <i>NBBJ (USA)</i>	Izzat Marji Group HQ, 2018 <i>Al-Nasser+Partners</i>
<i>trend/style</i>	<i>Neo-vernacular (contemporary localism)</i>	<i>Experimentation in refugee architecture</i>
		
<i>project name, date architect</i>	Royal Academy for Nature Conservation, 2014 <i>Ammar Khammash</i>	Contemporary refugee shelter prototype, 2019 Source: (DesignBoom, 2014) <i>Abeer Seikali</i>
<i>trend/style</i>	<i>Contemporary Infrastructure Buildings</i>	

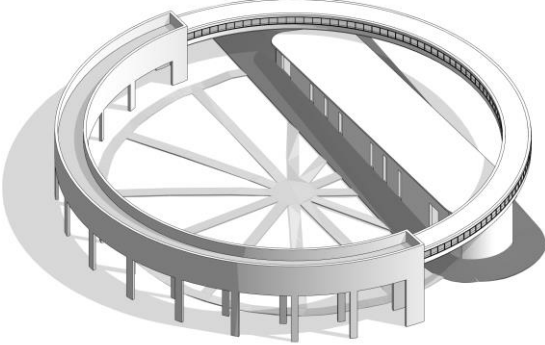
	
<i>project name, date</i>	Ras Al-Ain Bus Rapid Transit Station, 2020
<i>architect</i>	<i>Tahhan and Bushnaq Architects</i>

Table 4: architectural trends exemplifying the Fourth Phase (2000- today)

In the meanwhile, young Jordanian architects continue innovating, be that in the domain of crisis architecture, such as the work of Abeer Seikali and her proposal for a contemporary refugee shelter in 2019; the work of the Jordanian team at Columbia Urban Design unit in Amman to devise innovative and environmentally responsive architectural solutions for Jordanian contexts; or the work of Tariq Khayyat - a rising Jordanian architect whose proposal for Shenzhen Louhu masterplan in China won vis-à-vis major global architectural practices in 2019 (TKDP, 2021).

4. Conclusions

Questions of identity, authenticity and national symbolism are central to architectural theorizing, and at the turn of a century of Jordanian architecture, it is enlightening to read transformations of national identity in the nation’s architectonic expression.

One of the key discourses on the nature of Jordanian identity focuses on the fragmentation of symbolic and territorial references according to three main identity groups: the Hashemite ruling class, citizens originating from Transjordanian tribes (settled and Bedouin), and citizens of Palestinian descent. Although this identity disjunction can be obvious in socio-political terms, architecture presents a different narrative. As the Hashemites of Jordan left the Hijaz and settled in Amman, they staked their legitimacy by claiming protection of specific buildings of high religious significance such as the Noble Sanctuary in Jerusalem (especially the Dome of the Rock). Within the territory of Jordan, this protection extended to historical Muslim and Christian religious sites. The Hashemites also built new landmarks for their territorial presence, such as royal palaces and state mosques, and claimed pieces of Jordanian built heritage to support the narrative of their leading role in the Great Arab Revolt. In terms of national representation through architecture, the Hashemite narrative overwhelms the narrative of other groups, as evidenced in official media, such as museum displays and banknotes. In terms of architectural style however, the Hashemites immersed themselves in the development trajectory of Jordanian architecture; architectural styles united the rulers with their subjects.

As for the Jordanian population, socio-economic circumstances overcame identity divides. On the level of individual residential buildings, the bourgeoisie employed its resources to experiment and improvise, culminating in architectural acrobatics at the crests of economic booms. At the turn of the millennium, the bourgeoisie welcomed the neoliberal turn and the accompanying “global types” of buildings (Dovey, 2014), embracing privatized and commercialized public space and office towers,

consumerist culture, gated communities and projects such as Al-Abdali and the shopping malls. Nevertheless, the bourgeoisie also has the means to support local architects, innovation and philanthropic projects. Many of the mentioned projects above are funded by private and corporate means. The Jordanian bourgeoisie (the richest families in particular) also built its fortunes in Jordan, nursing nostalgia to the neighborhoods it inhabited, and thus forms a major driver for urban and architectural conservation. Although the de-territorialization thesis of Shami (2007) might hold in other spheres, new generations of Jordanians are forming stronger territorial belonging through the built environment.

In the last century, as architectural styles progressed from traditional to modern to postmodern and beyond, Jordanian architecture alternated between expansion to accommodate global norms, and contraction to create architecture that is locally rooted. Although changing building technology and available materials prevented a return to the vernacular, the quest for authenticity and distinction in architecture repeatedly referred to specific symbolic sources: Islamic sources as seen in the geometries employed by Kenzo Tange and Portoghezi, as well as by numerous buildings constructed during the Islamization trend; Arab regional architecture as seen in the projects of Rasem Badran in Saudi Arabia, the reference to the Dome of the Rock in the building of the Jordanian Parliament and King Abdullah I mosque, and references to the Bedouin tent in projects as diverse as the Palace of Culture in Al-Hussein Youth City, Paul Rudolph's proposal for the American Embassy, and Norman Foster's design for the latest Queen Alia International Airport. Some Jordanian architects adopted a more nuanced and localized interpretation of urban space, inspired by the morphology and symbolism of the built fabric of Jerusalem, as in Bilal Hammad and Rasem Badran's designs for housing complexes, or the morphology of cascading cubic houses on the hills of Amman itself as represented in the new addition to the Electric Hangar gallery by Turath.

Two notable cases derive authenticity directly from local contexts, although not from the socio-cultural domains or the vocabulary of historical architectural stock, but from the morphological formation of Jordanian geology. A less direct case can be seen in the unrealized design proposal for King Abdullah II Opera House by Zaha Hadid, mimicking erosion in the soft sandstone cliffs of Wadi Rum and Petra. However the most significant case can be seen in the designs of the award winning Ammar Khamash, a scholar of Jordanian vernacular architecture and geology of Jordan. His designs resonate with the morphology of the landscape in materials and forms, creating masses, spaces and experiences unique in character yet true to the land. In this regard he mimics vernacular architecture in rationale but not in form and creates what can be considered a truly new Jordanian architecture. This approach reflects to some extent the spirit of new Jordanian generation, driven by a re-territorialized attachment to the land, it negates history and attempts to rebuild itself according to its own, new interpretation of place.

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