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## Restoring Kirkuk Citadel: Unearthing A Ghost Heritage

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### Abstract

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Historic urban centres are struggling to survive in the rapidly emerging globalization process. Many significant historical districts were demolished to make ways for modern urban environments, other significantly dilapidated, such as the case of Kirkuk citadel, due to its negligence by public authorities. The citadel is being a victim in two ways: firstly, by the past regime and secondly by the post gulf-war administrative rulers. This paper analyses and discusses the physical condition of the architectural features and citadel's urbanism, while challenging the traditional conservation approach currently employed by Iraqi authorities. The paper advocated for the adoption of Internationally consolidated approaches and principles in the field of heritage conservation. Through historical documentation review, field surveys, and discussions involving parties, this research explores the physical status of the citadel's buildings. It further defines six different building typologies on the site with its urban morphological pattern, delivering an architectural framework to guide future restoration efforts. The paper reviews previous restoration attempts and proposes a roadmap for the citadel's restoration.

**Keywords:** Kirkuk Citadel; Heritage conservation; Restoration Plan; Islamic Urbanism; House Typology.

### 1. Introduction: Literature Review

Post-conflict and post-disaster reconstruction became an increasingly important issue after the destruction of cultural heritage sites in many Middle Eastern countries. More than ever, architectural heritage is at risk of annihilation, a lack of appreciation and technical tools for its restoration. In many countries in the global south the topic of conservation and restoration of architectural is still terra incognita and there is little awareness about its artistic and socio-economic values for a wider community. As Embaby (2014) claims "it is a living heritage and it is essential to understand, define, interpret and manage it well for future generations".

However, the term heritage itself is ambiguous for many developing countries and often misunderstood. Not all historical buildings and their setting are considered heritage, neither the action itself of heritage conservation is socially shared, for this requires collective, community-driven goals that define why and how a historical setting is protected. A socially shared approach moves beyond purely technical or expert-driven approaches to focus on social value, identity, and sustainable development. These considerations are often overlooked and often not observed in the global south (Hama A., 2017). Savino M. (2010, p.158) quoting Gregotti, reports that, "the sudden and impetuous modernization process tends to overwhelm all that has not found any shared social definition of heritage and seems to succumb to the new forces of change". "Similarly, in the Islamic culture countries, where the concept of heritage is not only new and unusual, the term heritage, itself, is seen as something foreign and often misunderstood, despite enormous deterioration of their precious historical sites.

Yet, the most controversial argument in heritage conservation in the global south is that heritage rehabilitation is viewed as merely as a renewal operation. This is why when it comes to conservation of a monument, they drastically alter its form and authenticity. As S. Settis (1984, p.52) highlights "the mark of authenticity in the oriental countries (especially in China and Japan and some Middle eastern countries) is not strictly linked to the materiality of an object or building, but rather to its formal trueness". Hence, heritage rehabilitation is translated often into a total deformation of original features, involving a random application of non-character- features and reconstructing missing elements based on the lack of evidence. More explicitly, this approach often referred to as restoration to a random aesthetic taste, which differs from approaches that focus on recreating a past appearance based on evidence.

Several Scholars and organizations argue that that historical neighborhoods offer sustainable solutions suited to local conditions, often emphasizing that their design features are inherently sustainable. Yung and Chan (2012) focus on the socio-cultural value of historical settlements, arguing that they act as "social anchors" that promote community pride and sustainable development. Understanding the architectural and historical components of ancient sites serves as a bridge through which one comes to know one's past. As Kevin Lynch (1972, p.235) states "Historic cities, as the 'collage of time' are the very references that connect past, present, and future. Panakaduw C., Coater P., Munir M. (2024) are

highlighting that the historical value of the older building stock is a non-renewable resource. Hence, their restorations have become imperative, especially considering the current climate emergency. Developing cultural heritage frameworks and guidance are key to addressing the multi-faceted challenges of heritage reconstruction. The challenge is then how to integrate and adapt the historical buildings into modern needs. Evidence has shown that the adaptive reuse approach is very effective in integrating historical sites into modern lifestyles. Just to recall some examples, we notice how effectively adaptive reuse approach has been implemented in the conservation of ancient Caravanserai in Istanbul or Diyarbakir and elsewhere, which have considerably contributed to cities economic activities (Ertan & Egercioglu, 2016; Gravari-Barbas, 2016). Undoubtedly, historic cities can also restore certainty, improve the outlook, attract investment through current facilities for social enterprises, catalyze, and reverse economic decline. Oktay & Bala (2015) claim that attracting domestic and foreign tourists can lead to a significant urban regeneration of historic cities.

Most critically—and this lies at the very core of our research—residents must not be displaced from historic neighborhoods, because doing so turns living heritage into nothing more than a ghost town. Scholars and conservation practitioners (Djabarouti J. 2025) are stressing the need for communities to remain in historic areas before and after restoration works take place. Drawing on the ideas of Patrick Geddes, Ferraro (2009) notes that Geddes believed: “Residents of historic areas—especially those who choose to stay rooted in their familiar surroundings—play a far more vital and constructive role in heritage conservation than any administrative policy or official measure”

Simon C. Woodward and Louise Cooke (2022) further argue that the continued presence of original inhabitants is indispensable, as it serves as a critical foundation for sustaining the living continuity of heritage sites. Transforming historic settlements into unoccupied or uninhabitable spaces effectively compromises their vitality and significance. This is because conserved structures rely on ongoing maintenance, functional use, and active engagement from resident communities; without such involvement, heritage assets risk becoming static entities stripped of their cultural relevance and meaning.

Concerning the frameworks and mechanisms governing the conservation of archaeological sites, a substantial body of international agreements has been established from 1973 to the present. UNESCO has consistently emphasized the necessity of grounding restoration initiatives in authentic sources and well-documented evidence. Furthermore, the organization discourages the displacement of communities residing within historic settlements, while actively promoting public engagement and participation in conservation projects. For instance, Article 16 of the 1964 Venice Charter stipulates that “all conservation and restoration activities must be founded upon credible historical documentation, primary sources, and analytical assessments; rigorous scientific analysis and interpretation are prerequisites prior to the commencement of any intervention” (UNESCO, 1964).

Of particular significance is the recommendation to adopt UNESCO’s conceptual framework for urban heritage management. As outlined in UNESCO (2026), contemporary approaches represent the culmination of a century-long theoretical evolution in this field. Notably, these developments highlight a fundamental shift in both theory and practice: the scope of heritage management has expanded beyond a primary focus on individual monuments to encompass area-based strategies. Additionally, modern frameworks advocate for adaptive reuse, while integrating considerations of intangible heritage and the principles of sustainable development.

### 1.1. The Country’s State of Heritage Conservation

Decades of conflict have caused severe damage to Iraq’s architectural heritage. Historic neighborhoods and ancient monuments have deteriorated due to the concerned authority’s negligence and the country’s political turmoil. The current reconstruction process has often focused on designing modern projects, leaving little room for heritage preservation or culturally sensitive design.

In place of preserving and/or re-using the existing heritage, the country is more caught in the race of copying the image of Dubai, embracing the spirit of what Elsheshawy Y. (2004) called “Dubalization phenomena”, which is a specific model of urban development characterized by rapid and spectacular growth.

In the current Iraqi reconstruction practices, there is an awkward, yet prevalent perception, equates progress with the rejection of heritage and past architectural forms. Glass towers, wide highways, and imported designs are often associated with progress and global status, despite the fact these models frequently ignore local climate and social condition, along with the loose of cultural identity, which meanwhile risks erasing and loos of historical memory embedded in the ancient built environment.

In his book ‘If Venice Dies’, Italian archaeologist and art historian Salvatore Settis outlines three primary ways a civilization (or a city) dies, largely inspired the loss of identity and cultural memory.

The three ways are: 1) Physical destruction by invaders: Civilizations can die when they are physically destroyed or conquered by external forces. 2) Aggressive colonization: A civilization can be destroyed when it is occupied and colonized, losing its autonomy and cultural distinctiveness. 3) Loss of identity (internal decay): the most insidious form of death is when its citizens “forget who they are and become strangers to themselves and thereby their own worst enemies without even realizing it”.

The third case applies to the Citadel of Kirkuk, where the majority of the local population appears to suffer from a form of collective amnesia, having largely forgotten the historical origins and foundational identity of their city. Notably, the site has experienced decades of neglect by local authorities, leading to a progressive deterioration in the structural condition of its buildings.

A fundamental challenge facing heritage conservation in Iraq is the scarcity of historical records and documentation pertaining to historic structures. Authentic archival materials and reliable primary sources are exceptionally limited, with the result that both past and current preservation interventions have often been guided by subjective preferences rather than objective evidence. Such practices have significantly contributed to the distortion of historical fabric and the erosion of the sites’ authenticity. Furthermore, institutions such as archives and museums have traditionally not been accorded to

the level of respect or priority they merit within the country. Historically, formal interest in heritage preservation emerged primarily during the British administration of Iraq. A key milestone occurred when Gertrude Bell, a prominent British archaeologist and diplomat, proposed the creation of the Iraqi Museum in 1923; the institution was officially inaugurated in 1926.

While Bell's initiative laid the foundation for organized heritage protection in Iraq, the framework she established was neither comprehensive nor adequate. She introduced restrictive guidelines that limited preservation efforts exclusively to monuments and archaeological sites dating prior to 1700 CE, effectively excluding all structures constructed after that date. Although Bell's work fostered a greater appreciation for national heritage and ancient monuments, this policy led to the systematic marginalization of numerous traditional buildings from the Ottoman period (Hama, 2013). This selective and reductionist approach has had long-term adverse consequences for heritage management in Iraq. Over time, this inadequate framework resulted in the widespread decay and loss of most architectural landmarks from the eighteenth and nineteenth centuries, including significant structures dating to the Islamic and Ottoman eras.

A significant turning point came after 1974, when the former regime in Iraq extended the scope of conservation policy to include all historical buildings, including those built after the year 1700. This policy acted as a barrier against the demolition of many historical buildings. Pursuant to the new order, the Iraqi government invited foreign firms to participate in the restoration of archaeological and heritage sites. One of the key outcomes of this initiative was the involvement of the Dioxides Associates (a UK-Athens based firm), in drafting the urban planning of Kirkuk concurrently to the plan of restoration of its Citadel in the mid-1970s.

It is worth noting, however, that the Iraqi authorities have soon shifted his vision toward a more ideological-driven policy that took different stance towards the restoration of Kirkuk citadel. Since then, not only was the preservation process halted, but the government also adopted a hostile stance toward Kirkuk Citadel — a position that culminated in the widespread destruction of its buildings in 1997 due to political motivations.

The post-Gulf war administration didn't bring any prospect of hope. The federal government has made some efforts to restore and maintain mosques and heritage sites that symbolize the ruling authority's sectarian identity—such as the restoration of the Najaf Grand Mosque, Kadimiya shrines in Baghdad, and several Shi'a shrines in southern Iraq, whilst ignoring all other Suni-linked heritages. In this context, Iraq's architectural heritage is no longer viewed as a shared national legacy that belongs to all communities and sects of the country. Instead, each sectarian group has focused on renovating the heritage structures that support its own political and religious narrative. As a result, sectarianism has overshadowed preservation efforts, and heritage restoration has become deeply politicized. Under the influence of such a domain, the historical buildings of Kirkuk Citadel have suffered numerous problems, including a gradual deterioration and collapse of many of the historical buildings.

### **1.1.1. Study Justification**

The period following the Gulf War brought no improvement to the state of heritage conservation within the country, and the circumstances surrounding historic sites remained largely unchanged. Kirkuk Citadel was once again relegated to the margins, as the newly established authorities failed to implement effective measures for its restoration and maintenance. Mirroring the approach of previous administrations, the site continued to suffer from institutional neglect, resulting in ongoing and progressive deterioration.

In 2007, the Directorate of Antiquities in Kirkuk, in collaboration with other entities, initiated restoration projects targeting several significant structures within the Citadel — notably the Shrine of Prophet Daniel, the Great Mosque, the Stone Gate, and five residential buildings. Nevertheless, these interventions did not meet the required standards or expectations. The work was characterized by a lack of appropriate methodologies and technical expertise, and crucially, it was not grounded in rigorous historical documentation, thereby compromising the authenticity and integrity of the outcomes.

One of the critical weaknesses of the current heritage protection approach in Iraq is that it places importance only to the prominent historical building: the Iraqi Directorate of Antiquities and relevant authorities are still implementing the outdated methods, called "Conservation Listed Buildings. At the local level, there is little debate and discussion about the immense evolution internationally occurred on the matter of heritage conservation, starting from re-use approach and "area-based" conservation that are in place in many countries since the mid of the 1960s, that extends the practice of conservation to the entire environmental settings where the prominent buildings are places, including the alleyways, streets, open spaces, and minor important buildings. Notable examples are the city of Bath, Venice, Rome, Dubrovnik, Cartagena, Copenhagen, Amsterdam and hundreds of other cities who have extended protection to their historical centers through legally defined "buffer zones", often regulated by UNESCO.

Another restricted approach of heritage preserving in Iraq is that the conservation program follows a very surgical policy that exclusively addresses the problem from top-down and expertise perspective, without considering the interests and the participation of the residents in the restoration process. Internationally consolidated experiences of restoration programs have shown that residents' involvement in the preservation program is key to solving a range of logistical problems, and leads to socio-economic, cultural and administrative successes.

## **2. Research Objectives**

This research is guided by two primary objectives. First, it critically examines the traditional methodological approaches to heritage conservation currently applied within the country, and advocates for the adoption of internationally established standards and principles in this field. Second, the study formulates a range of strategic recommendations and proposes a structured roadmap to guide the future preservation and development of the Citadel.

## 2.1. Materials and Methods

The research is a devoted inquiry around the followings:

- A Comprehensive Survey of the Citadel's urban morphology and buildings typology: This included identifying the current physical condition and typological characteristics of the surviving buildings, with a view to reconstructing them as part of the future restoration program.
- Interviews with Key Stakeholders: Discussions were conducted with officials from the Kirkuk Directorate of Antiquities to gather information about the citadel's buildings as well as understanding their conservation approach. Interviews were also held with local elders and individuals possessing specialized knowledge about the citadel.
- Photo Survey and Historical Documentation: A visual analysis was carried out using photographs, maps, historical sources, and official documents rendered to the public.
- Review of the past restoration attempts of the citadel.

## 2.2. Anatomy of the Citadel's Urbanism and Its Current State

Historical records verify that the oval mound forming the core of the citadel was continuously inhabited and modified by successive civilizations, including the Assyrians, Greeks, Seljuks, Abbasids, and finally the Ottomans. Situated atop this elevated site, the citadel developed as a self-contained entity, isolated from the surrounding urban fabric—a factor that contributed significantly to its survival until recent decades. However, investigations of the artificial mound have revealed extensive structural damage, with widespread erosion and collapse evident across many sections, indicating an urgent need for conservation intervention.

Of the 90 residential structures that once defined the citadel's outer perimeter and architectural character, only four remain standing today. Consequently, the site now presents a diminished appearance, having lost the architectural features that once formed its distinctive and imposing skyline.

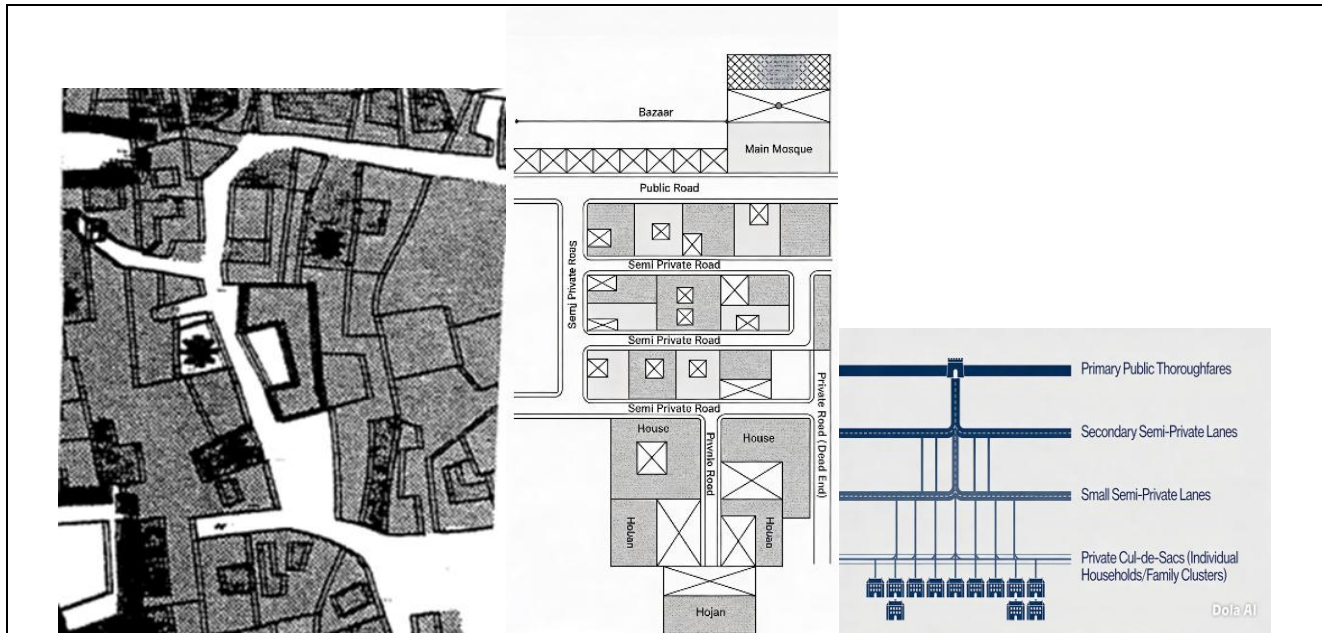


**Figure. 1.** Current (left) and former (right) appearance of the citadel's skyline (Source: the author and Kirkuk Heritage Directorate Archive).

A retrospective analysis of the citadel's urban structure, based on a historical map from the mid-1990s, indicates that while the site preserves some architectural elements dating to pre-Islamic civilizations, its spatial organization and built form exhibit characteristics widely shared with historic Islamic cities. These include the overall urban layout, the use of central courtyards, and the presence of mosques, religious facilities, covered passages, vaulted structures, roofed markets, and khans or caravanserais.

Furthermore, the urban pattern conforms to a defining feature of Islamic urbanism: a notable absence of large, open public spaces, contrasted by a predominance of semi-private domains. Such spaces—comprising internal courtyards, narrow lanes, and irregular pathways—constitute a substantial proportion of the built environment, creating a continuous spatial sequence that links semi-public thoroughfares to the private courtyards of individual residences. In morphological terms, the street network is characterized by narrow alleys that gradually expand into wider shared routes functioning as semi-public zones. These areas serve to delineate both the physical and social boundaries separating the citadel's three primary residential quarters, forming an integrated network where semi-public roads connect to semi-private lanes, which in turn lead to more enclosed private spaces.

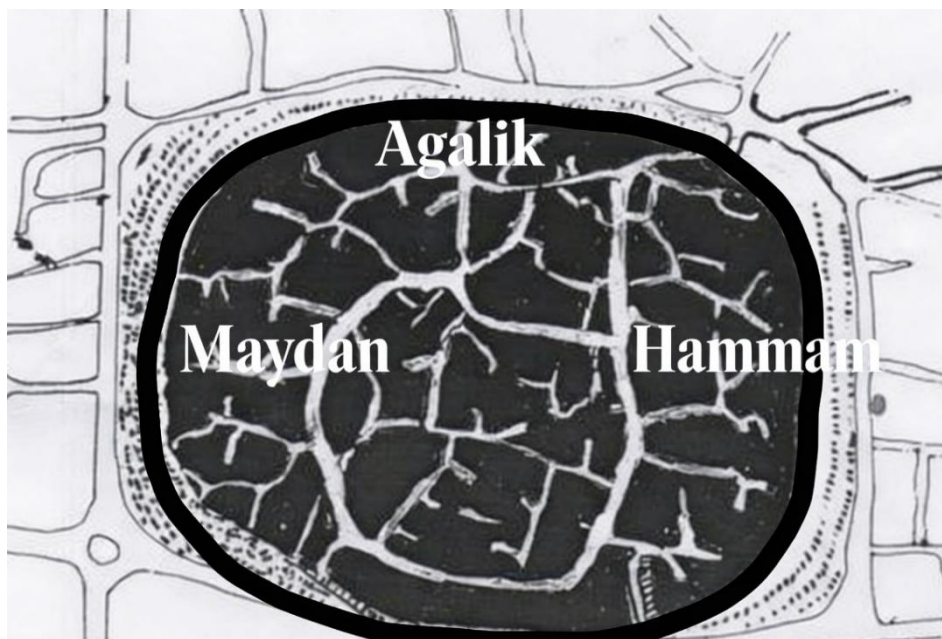




**Figure 2.** A schematic representation depicts the hierarchical structure of the citadel's circulation network, demonstrating how routes descend in scale from primary public thoroughfares to smaller semi-private lanes, culminating in private cul-de-sacs that serve only individual households or small family groups. (Source: author).

Zain Al-Abdeen (1989) reported that narrow, mostly winding alleys constituted roughly 12% of the citadel's total area. A key feature is the local Taq — overhead vaulted arches that provide shade and cooling, creating semi-covered spaces that also function as important gathering points for residents.

Historically, the citadel was made up of three main neighborhoods: Aghalik, Maydan, and Hammam. These neighborhoods were not organized in a hierarchical urban structure. Each quarter formed an independent urban unit: each ethnic or religious group inhabited determined quarters with active interaction with other groups.



**Figure 3.** The citadel of Kirkuk in the 1980's with its three quarters (Source: author).

Rashed J. (2002) recorded that certain neighborhoods do contain more architecturally significant elements than others. One such neighborhood is Hammam, located on the western side of the citadel. This district stands as a model of interfaith coexistence among Muslims, Christians, and Jews, as it was once the seat of the Beth Germ bishopric and contains both churches and mosques. Interestingly, at the Hammam neighborhood is located the Mosque of the Prophet Daniel, which serves as a center of worshiping. Remarkably, it is the only known site in the world where the tombs of three prophets—Prophet Daniel, Prophet Uzair, and Prophet Hanaiah—are found in a single shrine. Nonetheless, the presence of these prophetic shrines in the citadel grants significant historical value. These sacred sites are now becoming a destination for religious tourism.

The Maidan district is another notable neighborhood within the citadel, situated on the western side near Bab al-Toub (Top Gate). It contains numerous elaborately decorated structures that exemplify authentic regional architectural styles. Entering the district through this gate, several surviving buildings remain, most significantly the Citadel's Caesarea — a caravanserai widely known as the Textile Bazaar. Although its precise construction date is unrecorded, stylistic evidence

points to an origin during the Ottoman period. The building presents a plain external façade, featuring just two entryways and a small number of windows, while the interior is far more distinctive and richer in architectural detail. It is organized into two parallel rows, each comprising seventeen shops; every unit is fronted by a rounded arch highlighted by a central keystone. Historically, this space served as a vibrant commercial center for trade and the exchange of goods, particularly textiles. Presently, it no longer fulfils a commercial function and is in a fair state of preservation. Nevertheless, following appropriate restoration, it retains significant potential to be revitalized as a key commercial hub for the city. Located in the Maidan district, the “Green Dome” (Qubba al-Khadra) is an octagonal structure dating to the Seljuk-Atabek period (1361 CE), presently in a moderate state of preservation. Its blue-tiled tower rises in two tiers, with robust outer walls adorned with colorful ornamentation and Islamic geometric reliefs. A rectangular precinct surrounds the green-domed building, forming a courtyard enclosure with a large, central framed entrance. The interior façade features stone columns, a series of semicircular arches, and a vaulted passage. Today, the dome and its precinct stand unused, while the vaulted walkway—illustrated in the accompanying figure—suffers from severe structural deterioration.



**Figure 4.** The Green domed tower with vaulted pathway enclosure (Source: Kirkuk Heritage Directorate Archive).

In addition to residential buildings and houses, the citadel contains numerous mosques and one church, known as “Um Al-Ahzan” church (Our Lady of Sorrows). This church possesses a distinct architectural identity, featuring multiple tiers and intricately decorated arches made of marble. The date of the construction is unknown. Yet, some unverified accounts suggest that it dates to the late 18th century AD. During the 1980s, several attempts were made to restore the church, but none were successful. Today, the church is in a very poor structural condition: only three of its walls are still standing; the roof and internal walls are collapsing.

The citadel’s circulation network originally comprised two primary thoroughfares, functioning as main arteries for internal movement and linking the three residential quarters with the site’s four gates. Today, these routes, along with the secondary pathways, are buried beneath accumulated earth and debris.

Four entry points provided access to the citadel: the Stone Gate, Top Gate, Yedigizler (Seven Sisters) Gate, and Halwaji Gate. The Stone Gate overlooks the Khasa River and is reached by a flight of approximately fifty steps. Although it was restored in 2007, the reconstruction was undertaken without reference to historical evidence or documentation.

The Top Gate (Top-Kapi) also faces the river; according to Suphi Saatci (2007), drawing on Ottoman archival records, it dates to 1882 CE. Presently, it is in a fair state of preservation and requires conservation work. The remaining gates — Yedi Qizlar (Seven Sisters) and Halwaji — both opened onto the Halwaji market district. At present, both structures show clear signs of advanced structural decay and deterioration.

Situated along the lower slope of the citadel, twelve caravanserais and one Caesarea form part of what was Kirkuk’s — and possibly Iraq’s — longest and most dynamic pedestrian market, extending approximately one kilometer in length. This long, downhill market accommodates a diverse array of retail outlets selling household goods, alongside numerous specialized artisan workshops, including blacksmiths, dairy sellers, carpenters, and various other trades.

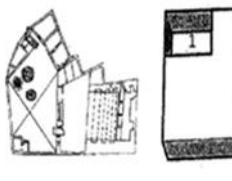
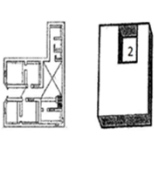
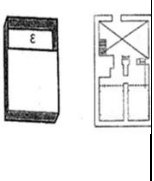
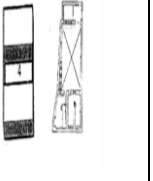
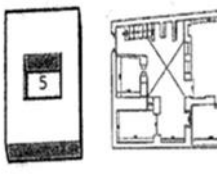
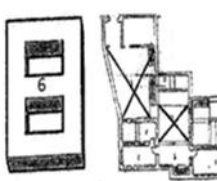
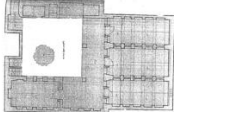
### 2.3. The Inward-Looking Houses

An analysis of the citadel’s residential architecture shows that the houses are constructed from stone and plaster, typically rising to one or two stores. They present simple, unadorned external elevations with no windows facing outward. Characteristically inward-looking, these homes appear as solid, cohesive forms from the street, while their interiors—particularly the spaces surrounding the central courtyard—are richly decorated and detailed.

Examination of the internal layout reveals that rooms opening onto the courtyard feature ornamental windows, arches, and connecting corridors. The courtyard itself is designed to mediate natural environmental conditions, playing a key role in both the function and aesthetic quality of the living space. In summer, it casts shade over surrounding façades, shielding the area from direct solar radiation; this naturally cools the building and reduces reliance on artificial cooling, cutting energy use and cost. In winter, by contrast, the layout allows sunlight to enter while offering shelter from harsh weather. Beyond climate control, courtyards provide a private sanctuary within the home yet remain functional and open enough to channel daylight deep into the interior. They act as the social heart of the house, where family members gather, and in many cases facilitate cross-ventilation for ground-floor rooms—hence why most internal doors are oriented toward this central space.

Based on a detailed study of these structures, we have identified six distinct residential prototypes, classified according to the position of the courtyard within the floor plan, as summarized in the table below. Each type is described individually, highlighting exactly how the courtyard is integrated into the overall design of the houses.

**Figure 5.** This diagram presents the six residential typologies identified within the citadel, allowing for a direct comparison of their spatial arrangement and courtyard orientations in the six prototypes (Source: author).

| Prototype 1                                                                                                                                             | Prototype 2                                                                                                                                                                                                                    | Prototype 3                                                                                                                                                                               | Prototype 4                                                                                                                                                                                                                                                             | Prototype 5                                                                                                                                                                                      | Prototype 6                                                                                                                                                                                                                                                                                              |
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| In prototype 1, the inner courtyard is surrounded by rooms from two sides. An example of this model is the house of Sayed Fathi in the Agālīq district. | In prototype 2, the inner courtyard of the house is surrounded by rooms from three sides, therefore it is open only from one side. The house of Mikha'il and the house of Abdulrahman Effendi are representing this prototype. | In prototype 3, the inner courtyard is open from three sides; that is surrounded by rooms only from one side. In some cases of this model, the reception room (Ivan) faces the courtyard. | In prototype 4, the inner courtyard functions as a spatial divider, splitting the house into two distinct sections. Each room in one part of the house overlooks an Iwan. This allows all surrounding rooms to receive natural light and ventilation from the courtyard | In prototype 5, the courtyard is located at the center of the building and is surrounded by rooms from all four sides. The house of Mustafa Agha in the Maidan district Represent this prototype | In prototype 6, the houses have two courtyards, all rooms overlook the two courtyards. An example of this model is the Taifur house built in 1739. The house consists of two floors and is considered one of the larger homes in the citadel. The upper floor contains Iwan that overlooks the courtyard |

In most of these layouts, the rooms overlooking the courtyard were repurposed as storage areas or accommodation for servants and laborers. The kitchen and traditional oven were also situated within this central space. Additionally, a staircase in one corner typically led down to a basement level, known locally as a Sardab (underground room). Some of these underground spaces featured a ventilation structure—a square tower rising from the basement up to the roof. Designed to face the prevailing wind, this feature drew cool air down into the lower levels at night; during the day, the space served as a refreshingly cool area for rest and daily activities.

### 3. Results: A Silent Decline of the Citadel

The citadel sustained continuous habitation over many centuries, with approximately 800 families residing there until the mid-1990s. However, our field survey confirms that today no families remain, and the site has effectively become a ghost settlement. This depopulation is primarily attributable to the total absence of basic infrastructure and essential public services within the area, as well as the lack of appropriate restoration efforts.

The survey further shows that around 90% of the citadel's area now presents a barren, desolate appearance, with surviving structures scattered across the artificial mound and separated by extensive empty spaces. This condition stems from two distinct phases of loss and damage: first, the deliberate destruction of approximately 93% of the citadel's historic buildings by the former regime in 1997; and second, the systematic neglect by post-Gulf War administrations, whose failure to intervene led to further deterioration of the site.





**Figure 6.** The citadel as it appeared before the destruction (left), and following the demolition works of 1997 (right): Source: Duygu S. Mustafa; Sabah Mokhtar; Akar Tuba (2021).

We can break down the process through which the citadel was ruined and marginalized into the following stages:

**Phase 1: Progressive Deterioration**

This stage commenced in the 1970s, during which public authorities failed to provide the citadel with essential infrastructure and basic services. Consequently, residents progressively relocated elsewhere in search of improved living conditions.

**Phase 2: Social Disintegration and Structural Decline**

During the 1980s, a clear process of social fragmentation unfolded. Government policy actively encouraged residents to vacate their homes, offering alternative land allocations outside the citadel in return. This large-scale displacement severely compromised the site’s preservation; without inhabitants maintaining properties, neglect set in, leading to the decay and collapse of numerous structures.

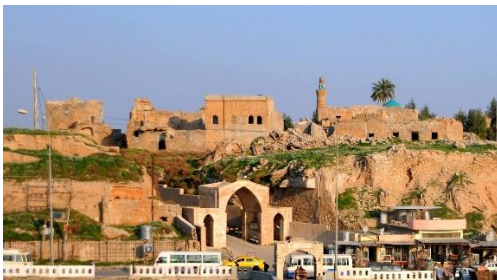
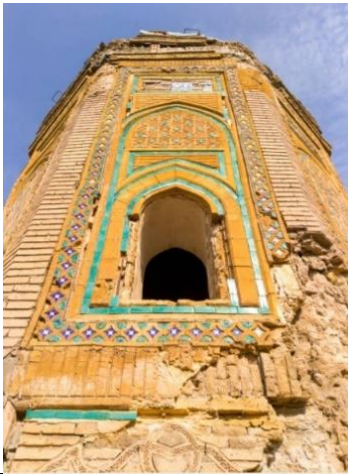
**Phase 3: Large-Scale Demolition**

The most drastic intervention occurred from the mid-1990s onwards, when the central government authorized the removal of approximately 93% of the citadel’s-built fabric. Of the original 500 buildings, only 45 were retained. This action was driven by political motives, as the former regime regarded the citadel and its demographic composition as a potential threat to national security

**Figure 7.** The images feature the current structural condition of the citadel’s prominent buildings (Source: Author).

| The structural condition of a prominent building in the citadel | Ruined buildings nearby Top gate | Recently collapsed entrance of the Green-domed tower |
|-----------------------------------------------------------------|----------------------------------|------------------------------------------------------|
|                                                                 |                                  |                                                      |



|                                                                                     |                                                                                     |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Remains of a big house with its courtyard filled with debris                        | The structural condition of "Top Gapi" gate                                         | The remains of Al-Arian Mosque                                                        |
|    |   |    |
| Collapsed buildings above the reconstructed gate                                    | Collapsed buildings near the church of Mother of Sorrow                             | The damaged walls of the textile Bazar                                                |
|    |  |    |
| The structural condition of the great mosque                                        | Remains of the Church of Mother of Sorrow                                           | The green domed tower                                                                 |
|  |  |  |
| An Axonometric view of the citadel with its desert-like                             | Debris on an alley of the citadel                                                   | A ruined house in the citadel                                                         |
|  |  |  |

The period following the Gulf War brought no meaningful improvement to the situation. The relevant newly established authorities failed to implement substantial measures to rehabilitate or revitalize the site, except for limited and insufficient restoration work carried out in 2007. This work targeted a selection of notable structures, including Toma's Building, the Prophet Daniel Mosque, the courtyard of the Grand Mosque, the Fathullah Mosque, the Stone Gate, Bab al-Top, and four additional buildings.

However, our field assessment indicates that these interventions raise significant concerns regarding their technical and historical validity. Specifically, the survey identified a clear absence of reliance on authentic historical records and documentary evidence during the restoration process. Instead, the decision-making and execution were largely guided by subjective preferences and personal judgment

Field observations confirm that the citadel buildings and monuments are predominantly in a poor state of preservation, characterized by extensive cracking, structural failure, and severe deterioration of walls and façades. Approximately 90% of the original structures have been reduced to ruins and rubble, while most the site's open areas now present a barren, desolate landscape. Only 45 buildings remain standing — including three mosques, one church, forty residential units, and the enclosed Green Dome — though all are in fair to very poor physical condition. Of the four original gateways, just two survive in a reasonable state. Furthermore, the 18-metre artificial mound upon which the citadel stands is structurally unstable, with significant erosion occurring annually along its slopes

Most importantly, the research has revealed that there isn't a single inhabitant currently living in the citadel. All small restoration efforts of the past have vanished as no inhabitant had a suitable condition for remaining in the citadel, and authorities have prevented them from reside in the citadel. As a result of lack of maintenance, even those small restoration efforts, by local authorities, have finished to be ineffective and caused lots of public resources.

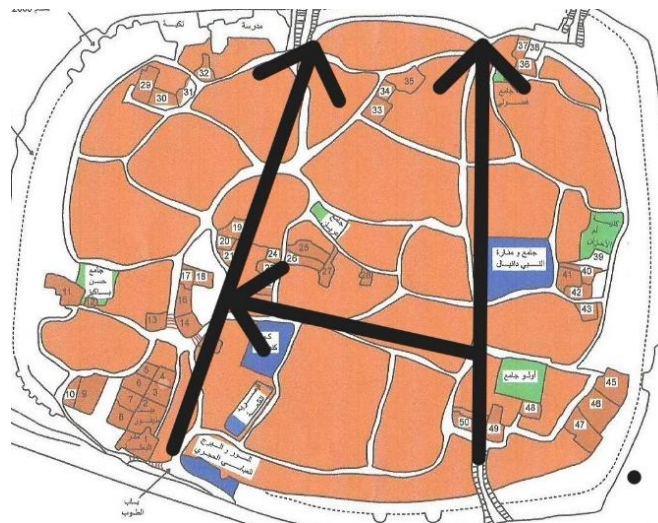
#### 4. Discussion: A Roadmap for Restoration

The survey highlights an urgent requirement to restore the remaining structures of the citadel, as well as to assign suitable purposes to its currently barren, open internal areas — so that the site may once again become a lively, active place. This need is especially pressing given that UNESCO recently added Kirkuk Citadel to the preliminary World Heritage List, in recognition of its rich cultural diversity for it hosts many important historical buildings such as the Prophet Daniel Mosque and other Mosques, the Green Dome, alongside the Chaldean Church of Our Lady of Sorrows and numerous architecturally notable structures.

Drawing on the results of our survey, relevant academic literature, and established international standards in heritage conservation, we have developed a strategic framework outlining a sequence of recommended restoration measures, organized into the following distinct phases

##### Phase One:

- Our assessment found that the artificial mound supporting the citadel suffers from severe erosion, with soil gradually washing away from many areas. This ongoing degradation undermines the stability of structures along the citadel's edge, leading to their collapse. Specialized methods are therefore required to arrest further erosion and reinforce the earthen formation.
- Archaeological excavation is essential along the main road network, most notably the two routes that once linked the four gates—such as the route connecting the Stone Gate and Halwaji Gate, which passes the Grand Mosque and Prophet Daniel Mosque. Exposing the remains of demolished buildings along these routes will help recover the citadel's historic character and landmarks. This phase shall also include removing the rubbles and debris currently covering the two main roads, in order to uncover the buried buildings beneath and restore their walls and layouts according to the original typological designs. Restored structures along these axes could be adapted for cultural and other purposes with their external appearance carefully preserved to match the citadel's original architectural style.



**Figure 8.** Proposed archeological excavation along the main route of the citadel (Source: author).

- Restoration is also essential for severely damaged landmarks, including the Green Dome complex, the Caravanserai (Textile Bazaar), Hassan Bakiz Mosque, Al-Arian Mosque, and the Church of Our Lady of Sorrows. Works should also cover all notable residential buildings that are partially or fully decayed — such as



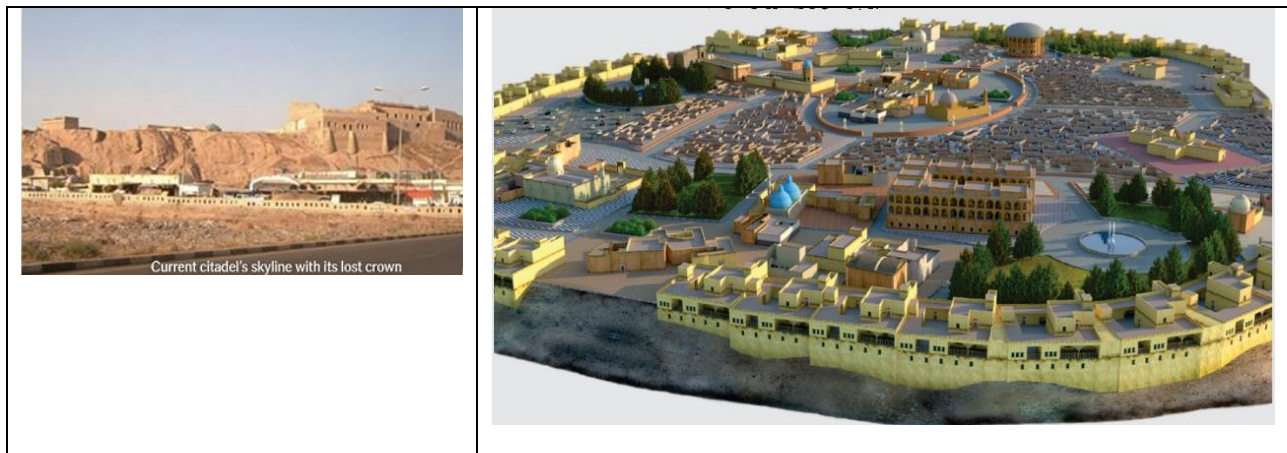
Sayyid Fateh's House, valued for its distinctive architectural quality — alongside the Yed-i Qizlar and Halwaji Gates.

Phase Two:

- Essential infrastructure and public services must be introduced to support the return of residents, including water supply, sewage networks, and waste management systems. Complementing these, cultural and leisure facilities — such as museums, exhibition spaces, cafés, cinemas, and restaurants — would revitalize the area and draw both local people and tourists from across Kirkuk.
- A designated parking area should be developed near the Stone Gate to improve access for visitors, workers, elderly people, and those with special needs; all other zones within the citadel must remain strictly pedestrian-only, with no vehicle access permitted. During this stage, restoration work should also be expanded to cover all buildings currently in a state of disrepair or advanced decay.

Phase Three:

- This stage will span a longer period and begins by applying a facadism approach to a row of structures along the citadel perimeter (as indicated in figure 5). These buildings will be restored externally and adapted for new functions, such as restaurants, specialty shops, and cafés. This method enhances the visual continuity and spatial definition of the site, recapturing the historic appearance of the citadel skyline while supporting sustainable, adaptive reuse.



**Figure 9.** The current skyline of the citadel (on left), on right the proposed reconstruction of the citadel's skyline; in the middle of the picture, it features the proposed rounded wall with reliefs to encapsulate the scattered buildings (Source: author).

A further element involves erecting a symbolic internal wall enclosing the structures in the central zone. This feature will create a formal architectural setting for the scattered buildings within. Along this wall (as shown in fig.10), it is proposed to place reliefs and sculptures commemorating key historical themes — including representations of prophets buried here, and European travelers who visited the citadel in earlier centuries and documented their experiences.

## 5. Conclusion and Key Recommendation

This study demonstrates that the citadel has suffered severe physical deterioration; without urgent intervention, its architectural heritage faces destruction, and the city risks losing one of its most valuable cultural assets.

A key recommendation is the re-establishment of a residential community within the site. To make this possible, essential infrastructure and public services must be provided immediately, as these are fundamental to encouraging people to return. It is equally vital that restored buildings are adapted to meet modern needs; potential uses include artists' studios, galleries, exhibition spaces, craft workshops, and shops selling textiles or souvenirs. Such diversification will attract visitors from across Kirkuk and bring the historic environment back to life.

Analysis of the citadel's historic fabric and spaces highlights the necessity for site-specific conservation strategies. Solutions applied elsewhere cannot unquestionably replicate here, though certain established methods are applicable. A relevant example is the use of the facadism approach for structures along the mound's perimeter. This technique aims to restore the citadel's distinctive skyline and architectural definition while allowing new functions within retained façades. The method is proven and feasible, having been successfully implemented at the nearby Citadel of Erbil and Aleppo Citadel.

This research further proposes treating the citadel's buildings and road networks as a single, integrated entity. Drawing on academic discourse, we advocate adopting an area-based conservation strategy, rather than focusing solely on landmark structures. This approach ensures that lesser-significant buildings, alleys, and open spaces receive equal attention and restoration.

In doing so, we align with the principles of recent heritage protection specialists such as Araoz G. (2011) and Djabarouti (2025), who emphasize the importance of safeguarding not only prominent buildings, but all living buildings and the intangible values associated with them alongside their physical fabric.

It is also vital to raise awareness among the Directorate of Antiquities, relevant authorities, and the general public about the need to preserve the citadel's structural integrity. Emphasis should be placed on both the cultural and economic value of restoration, including plans to develop a museum, café, and cultural center for community events and celebrations.



Immediate action is required to stabilize the artificial mound using suitable engineering techniques, alongside installing effective lighting—particularly along the perimeter—to enhance visibility and safety after dark.

Valuable lessons may also be drawn from the site of Pompeii, where ancient remains were fully excavated; even in their fragmented state, these ruins retain powerful aesthetic and historical significance. A similar approach is recommended for Kirkuk Citadel: clearing accumulated earth to reveal buried structures and transforming the site into an archaeological park, capable of attracting both tourists and residents.

Ultimately, realizing these restoration objectives demands joint effort from architects, urban planners, sociologists, economists, artists, and representatives of civil society groups. Open dialogue and the sharing of expertise will be essential to defining the most effective strategies for safeguarding and revitalizing the citadel.

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