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Influenced by the capitalism brought by France, the Medina of Tunis was disfigured by the domination of the commodity economy, leading its inhabitants to abandon their traditional Arabic living patterns and compete in the market of cheap and homogeneous goods. In order to improve the living environment of local residents, restore the commercial order of the old town and give room for the development of local cultural commodities, I utilized Waqf, a mechanism for asset donation unique to Islamic societies as an entry point to conduct design practices. By learning about the true aspirations of the local residents, the design revitalized the old neighborhood while preserved its traditional urban character.
1. World Heritage: Medina of Tunis

Located in a fertile plain region of north-eastern Tunisia, the Medina of Tunis is one of the first Arabo-Muslim towns of the Maghreb (698 A.D.). Capital of several universally influential dynasties, it represents a human settlement that bears witness to the interaction between architecture, urbanism and the effects of socio-cultural and economic changes of earlier cultures. Under the Almohads and the Hafsids, from the 12th to the 16th century, Tunis was considered one of the greatest and wealthiest cities in the Arab world. Numerous testimonies from this and earlier periods exist today. Between the 16th and 19th centuries, new powers endowed the city with numerous palaces and residences, great mosques, zauias and madrasas. With its souqs, its urban fabric, its residential quarters, monuments and gates, this ensemble constitutes a prototype among the best conserved in the Islamic world.

In essay The Islamic City--Historic Myth, Islamic Essence, and Contemporary Relevance, the author Janet L. Abu-Lughod proposed three hypotheses to discuss about what social factors shaped the unique urban form of medieval Islamic cities.

(A) Juridical distinctions between Muslims and/or citizens and outsiders
(B) Segregation by gender and a virtually complete division of labor according to it
(C) A fully decentralized system of land use and governmental regulation over space

All three hypotheses are regarded retrogressive in modern society where Liberalism and Capitalism predominate. Therefore, none of the conditions still exist which would permit us to reconstruct Islamic cities in a traditional way. But we could still build better cities in the contemporary Arabo-Islamic world if we pay closer attention to some of the true achievements of the past and if we learn from them.

Departure of Jewish Diaspora

During World War II, French Tunisia was ruled by the collaborationist Vichy government. The antisemitic Statute on Jews was also implemented in Vichy-controlled Northwest Africa and resulted in the persecution, and murder of the Jews. The Jewish community began moving from the Medina to newer European areas during the French Protectorate of Tunisia. After the departure of the Jews, the Hafsia was left to be one of the poorest areas of the medina.

2. Pre-colonial Medina

Medieval Islamic Urban Fabric

The design of the Arabo-Islamic city, with its convoluted paths and cellular neighborhoods, was intended to subdivide space into relatively permanent quarters. One of the most striking features of the cities of the Middle East and North Africa, is its subdivision into smaller quarters whose approximate boundaries remain relatively constant over time and whose names continue to be employed as important referential terms.

Hara (Hafsia): Jewish Quarter in Medina

The Jewish community of Tunis resided in the Hara from the 13th century. Structurally, the Hara was similar to the rest of the medina: a multitude of low, whitewashed buildings located on sinuous paths. Unlike other Jewish communities in the Arab world, the Hara lay within city walls and not on the periphery. For over 700 years there existed an important Jewish population that cohabitated with other communities living in Tunis and contributed to Tunisian economic, social, political, and intellectual life. El Hara Synagogue is an important site for the Jewish community, surrounded by public facilities such as schools, bathhouses, and nurseries. After it was destroyed during the colonization, there are plans among the residents to restore it and convert it into a Jewish museum.

Vacant Houses and Dysfunctional Streets

In the era of global capitalism, Medina residents struggling with poverty have to make ends meet by selling cheap goods. However, the spatial form of the traditional Islamic city is not compatible with the modern economy, resulting in a raw superimposition of foreign commodities and the spectacle of consumerism, overwriting its original historic character.

3. Post-colonial Medina

Destruction during Colonization and War

Tunisia was officially made a French protectorate in 1881. The French authorities declared the Hafsia quarter a health hazard, and many of the buildings were demolished between 1930s. Their plan for rebuilding the area used a grid design and was comprised of large housing blocks typical of European cities rather than the traditional urban fabric of the Medina. However, this grandiose work was interrupted by the war. During World War II, the area was bombed by Nazi, leaving many already precarious buildings badly damaged. Many landmarks, including the El Hara Synagogue, were destroyed during the war.

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Collage of Modern Reconstruction

The French colonizers; the Tunisian government, and the UNESCO have all reconstructed the old city with different strategies, making the masterplan of Hafsia a collage of modern architectural interventions.
The reconstruction of the medina has gradually shifted from an arrogant European grid to a humble patching of the traditional urban fabric. But none of the four architectural prototypes is naturally formed and developed according to local society, culture, and economics. Therefore, these top-down modern urban planning strategies have not really adapted to the complex social realities.

I. French Authority
The French colonists planned to rebuild the Hafsia Area with a European grid urban form. With the area heavily bombed in the Second World War, the French authorities built three large-scale resettlement buildings for Jewish community which abruptly broke the traditional urban fabric.

II. Municipality of Tunis
After Tunisia's independence in 1956, the Municipality of Tunis planned to upgrade the medina by constructing two large-scale schools and several public facilities. However, the renewal project was abandoned amidst massive protests by local residents as the new buildings completely ignored the old urban fabric.

III. UNESCO & ASM
The government proposed a new rehabilitation plan with the goal of integrating old and new neighborhoods. The first phase executed by ASM built separate residential and commercial areas. However, the isolated dwelling units do not fit the living pattern of Islamic extended family and end up as unused assets of the rich.

IV. UNESCO & ARRU
The second phase of the reconstruction program was carried out by ARRU in an attempt to provide housing for more poor people. But as commercial demand increased, the second floor space originally designed for residence eventually became storage.

Masterplan of Post-Colonial Hara: Collage of Modern Interventions
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1940s: French Housing Project
The French Authority built three large social housing projects for the Jews after the war. However, the mutually independent household is a complete reversal of the Islamic extended family. Traditionally, the large community with blurred boundaries between families, shared internal roads and courtyards to ensure privacy as well as to provide a place for women to interact. Modern apartments do not have semi-private spaces, resulting in public courtyards becoming deserted. Most of the ground floor residences have been turned into stores and cafes along the street, while the courtyards have become a place for storage.

1970s: Bazaar Souq Project
The bazaar souq is a traditional Islamic form of shopping street. In the first phase of the Hafsia Project, the design concept was to provide separate residential and commercial areas. Therefore a commercial street was built on the central axis of the Medina. The original design allowed the second floor of the bazaar to be used as residential or office space. However, the reality is that these second floor spaces and the inner side of the stores are all used for stacking goods. Many goods were even stacked in the middle of the road. The stalls placed on the walkway made the souq extra narrow and crowded, resulting in a poor shopping experience.

1970s: Residential Project 1
Phase one of the Hafsia Project was originally designed to provide independent and quiet residential areas. The buildings although Arab in appearance, were independent of each other and were still essentially modern self-contained apartments that did not fit the habitation of Islamic society. Each residence has its own internal courtyard, similar to a European Villa. These residences eventually became the assets of the rich, with most of the houses left vacant and a small number rented out as Airbnb. Since the initial design did not include commercial space, locals did not go there much and most of the streets were in an abandoned state.

1980s: Residential Project 2
The second phase of the residential project was designed with more dynamic plans to enhance the connection between households. It also changed the strategy of separating residential and commercial areas by adding stores along one side of each block. But the number of stores still did not meet the local commercial demand. Most of the ground floor spaces were converted to storefronts. The severe commercialization left only a few of the vacant rooms occupied by residents, while most of the rooms on the second floor were bumped with roll-up iron windows and used internally as storage spaces.

Failure of Reconstruction: Vacant Houses and Dysfunctional Commercial Streets

Although these constructions were all designed to provide housing for the poor, the findings of the site visit indicate that the current use of the buildings is not consistent with their original functions. Most of the ground floors residences have been converted into stores along the streets, while most of the second floor residences are vacant or used as storage rooms. Stores and stalls occupy all the streets, but the lack of planned commerce makes the goods homogenized and the streets cluttered.
The design relocated the storage from the disused residences to the empty sites. The cleared out residences can be offered to the Jewish community either from abroad or resettled from the French building. New public spaces are coupled with underground storage, including a cultural plaza and a grocery market. The sports field and the food court are renovated to accommodate public activities. The bazaar souq and other commercial streets are upgraded with new storefronts to provide better shopping experiences.

**Strategic Interventions: Rebalancing Residential and Commercial Spaces**

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What is WAQF?
An inalienable charitable endowment under Islamic law.

Using WAQF as a conceptual textual entry point into the design practice.

It typically involves donating a building, plot of land or other assets for Muslim religious or charitable purposes with no intention of reclaiming the assets. A charitable trust may hold the donated assets. The person making such dedication is known as a waqif (a donor).

How it works?

Benefits
1. The waqf upgrades the existing stores with new storefronts and provides more spacious and efficient storage spaces. This will improve the dysfunctional street environment that is now filled with stalls.
2. The Waqf clears out the second floor of the apartment (from storage use) and offered it as a social welfare apartment for the Jewish community visitors who visit Medina historical Hara neighborhood. The visiting Jewish community will have appropriate residents, public spaces and collective kosher kitchens across the existing roofscapes.
3. The Waqf creates public spaces out of the new storage sites for public use by local residents and visitors. A cultural plaza and a grocery market will be coupled with the storage, and the sports field and the food court will be improved.

Imagined Future
The Waqf will build and transfer the storage spaces in phases. The first phase will transfer the goods from the second floor of the residence to the east open space, and the second phase will transfer the goods in the bazaar to the ground floor of the cultural plaza. After completing the renewal of the southern area of the Hara, The Waqf will use the same architectural prototype to transform the residential, commercial and empty sites in the northern area of the Hara.

Site A
Site A is a vacant lot adjacent to the Jewish synagogue. A cultural plaza will serve as a public space for community gathering and cultural exhibitions. The abandoned synagogue will be activated through the connections with the plaza and the surrounding communities.

The underground space serves as a storage for the bazaar. Just like the spatial pattern of a bazaar, it also has a corridor in between and has high windows for light. Above the storage is a community gallery, which can be used to commemorate the history of the Jewish community. A sunken plaza with steps and landscaping will create a pleasant public space for local residents to enjoy cultural life and interact with each other.
Strategy 2 is to renovate the existing residential buildings and commercial streets by relocating the storage and upgrading the storefronts, courtyards and rooftops. Piles of goods will be relocated to the underground storage and the second floor rooms will be offered as a social welfare apartment for the Jewish visitors. The courtyard is an appropriate public space for the visiting Jewish community, connected to the exterior and roof by a newly added staircase. Some paved walkways and planted greenery were designed for the rooftop, as well as the collective kitchen for kosher food. The cluttered stalls along the street will be organized and the storefronts will be upgraded with new windows.

Strategy 3 is to creating a new storage space coupled with a grocery market. The underground floor is for short-term storage and the tower is for long-term storage. There are also some small lockers on the ground floor. Shopkeepers can use trolley to deliver goods from the storage. The goods from three streets are allocated and placed around three courtyards which allow the lights and greenery into the underground. The roof deck is designed as a place to hold regular grocery market, which is connected to the surrounding neighborhoods. By creating a multi-layered ground, the design redefines the storage space and provides rich experiences for the shopkeepers, the visitors and the local residents.
In Manhattan, the indigenous matriarchal society was subverted by the patriarchy of European colonizers, leaving women plagued by misogynistic crime and denied equal and safe access to public spaces. The Ramble Cave in Central Park is both the original settlement of the Lenape matriarchal clan and the site of a high crime misogynistic modern society. The cave was scanned and documented by technological tools and was transformed into a VR museum as the archive of women’s history. The intent of this design is to promote native American culture, call for the elimination of gender violence, and encourage female empowerment through interaction with the public.
1. Lenape Native American

Lenapehoking
The Lenape are an indigenous peoples of the Northeastern Woodlands, who live in the United States and Canada. Their historical territory included present-day northeastern Delaware, New Jersey and eastern Pennsylvania along the Delaware River watershed, New York City, western Long Island, and the lower Hudson Valley.

Colonized by Europe
At the time of European settlement, around much of the current New York City area alone, there may have been about 15,000 Lenape in approximately 80 settlement sites. In 1624, Lenape in canoes met Giovanni da Verrazzano, the first European explorer to enter New York Harbor.

During the last decades of the 18th century, most Lenape were removed from their homelands by expanding European colonies. The divisions and troubles of the American Revolutionary War and United States’ independence pushed them further west. In the 1860s, the United States government sent most Lenape remaining in the eastern United States to the Indian Territory (present-day Oklahoma and surrounding territory) under the Indian removal policy. In the 21st century, most Lenape now reside in Oklahoma, with some other communities in Wisconsin and Ontario.

2. Manhattan Matriarchal History

Matrilineal Clans and kinship systems
Lenape kinship system has matrilineal clans, that is, children belong to their mother’s clan, from which they gain social status and identity. The mother’s eldest brother was more influential as a mentor to the male children than was her father, who was generally of another clan. Families were matrilocal; newlywed couples would live with the bride’s family, where her mother and sisters could assist her with her family’s work.

Women’s Rights
Hereditary leadership passed through the maternal line, and women elders could remove leaders of whom they disapproved. Agricultural land was managed by women and allotted according to the subsistence needs of their extended families. Within a marriage itself, men and women had relatively separate and equal rights, each controlling their own property and debts, showing further signs of a woman’s power in the hierarchical structure.

3. Misogyny in Manhattan

High Rate of Sexual Crimes in History
Starting in the late 1960s, when the Great Crime Tsunami rolled over the nation, the New York City’s murder rates soared above 10 per 100,000 for a sustained period, skyrocketing to a terrifying 30.1 in 1990. Rape was the fastest growing crime in the U.S. in the 1970s. Data collected by the FBI displayed that the rate of reported rapes began to increase dramatically in the 1960s as women entered the workforce in larger numbers. During that period, serial sexual murders against women culminated in a misogynistic culture in society.

Public Space as Male Turf
In 1986, the feminist poet Katha Pollitt walked through Bryant Park in midtown Manhattan and wrote that ‘A great deal of what we call public space is, in fact, male turf. Fear of rape and attack, of which low-level aggravation is a reminder, plays a part in keeping women from claiming public space. Textbook urban policy holds that cities thrive only when women feel safe in public spaces, but sexual violence in public spaces is still largely tolerated and underreported, which called on governments to take preventive measures.

Resurgence of Misogyny
In the late 20th century, second-wave feminist theorists argued that misogyny is both a cause and a result of patriarchal social structures. Misogyny has increased in the United States under President Trump and the Republicans, whose reinforced patriarchal social and institutional systems promote gender-based hostility. Over the past two years, New York City has become increasingly unsafe for women. An explosion of horrific male violence against women in public spaces is a particularly acute sign of the ideological turmoil. According to the data of the NYCAASA, the best estimate is that nearly 50,000 women are raped annually in New York City (this does not include other forms of sexual violence), yet only about 1,500 are reported to the police.

Systemic misogyny and power inequities are at the root of male-on-female bullying. Design practices should be taken to incorporate gender-equitable society.
On NYC Open Data, I filtered out the cases of harassment, sex crimes and rape from 2006 to 2019. The cumulative number of sexual cases in each neighborhoods are counted and generated the corresponding heights, resulting in a virtual city model. Midtown and Harlem are crime-focused, and the most dangerous neighborhoods are often accompanied by some historic parks.

The real topography and city skyline was compared with the misogynistic one. The results showed that in midtown, skyscrapers and crime rates are proportional, while in Harlem is the opposite. The four peaks of the virtual terrain correspond in some way to the historical Lenape habitats. We can infer that the native habitats evolved from homelands to modern parks, which eventually became spots of sexual crimes.

Spot: Lanape Village

Several historic maps of Manhattan were studied and compared to locate the villages where native Lenape people gathered and lived.

**Ancient Topography**

Their tribe gradually expanded along the trails from the lower manhattan to the uptown. Their nomadic lifestyle makes them change their homelands frequently.

**Spot: Mountain and water**

Most of their habitats are located in places where natural resources flourish. With a subsistence mode of living by fishing, they usually live near the water.

**Present Topography**

With the modern construction of Manhattan, many of the old waterways have disappeared. What was once an evenly distributed natural landscape has been concentrated in Central Park.

**Spot: Park**

The layers show that many of the large parks in Manhattan overlap with the locations of lenape villages. In particular, The Inwood Hill park at North Manhattan is a Native American habitat with archaeological support.

**Sexual Crime Topography**

Based on the sexual crime rate in each neighborhoods, the virtual terrain meets some of its highest points at the locations of both the lenape villages and the modern parks.

A dataset included in the Harassment crimes reported to the New York City Police Department (NYPD) from 2006 to the end of 2019.
The cave was discovered by workers building the park in the 1850s. Designers of the Central Park incorporated it into their plans for the Ramble, a wild garden. Given that this cave with artificial traces has existed since before the construction of Central Park, and that its location coincides with the Lenape settlement in Manhattan, it is reasonable to suspect that this cave was once a habitat of Lenape people. For this reason, the cave has always been called Indian Cave.

The secluded character of the Cave proved to be its undoing. The social misogyny exacerbated the cave into a high incidence of misogynistic crime. Sexual harassment, rape and murder reoccurred, which made the cave a horrible and scandalous place for women. In 1929 alone, 335 men were arrested for “annoying women in the Park”, The Times noting that the Indian Cave was particularly favoured. Five years later, the Parks Department sealed up the Cave for good.
Despite the site of the native inhabitants of pre-colonial Manhattan is currently inaccessible, this modern technology of photogrammetry helps us to scan and model the external environment of the cave. By cutting sections of the model, we can speculate and generate a virtual scene inside the cave. In this way, we can preserve and transform the historical site digitally and revitalize it as a legacy of native cultural space.
The 3D model of the cave was generated through photogrammetry, which was cut into 60 sections of different orientations. Based on the sections and historical photos, the cave’s approximate location, scale, and internal space can be speculated and modeled.

Speculation of Cave: Location, Scale, Shape

VR Museum: Archive of Female History in Manhattan

The open space outside the cave will serve as an attraction in Central Park, drawing visitors to experience the VR interaction. The virtual museum will exhibit the native Lanape culture and call on for the elimination of sexual violence.
During the war in Ukraine, the Russian troops mercilessly attacked several cultural heritage sites and civic shelters. The Mariupol Theater, a cultural center and a civilian refuge during the war, was heavily bombed on March 16. After the bombing, Russia tried to demolish the ruins and rebuild them into a place of Russian propaganda, a reparation aimed at hiding history and erasing crimes. My design attempts to keep the evidence of war crimes by preserving the ruins as witnesses of history. As the architecture is redefined as a stage, people will watch the performance of the ruins as testimony. At the same time, pioneering artists create new art forms here to commemorate history and create the future.
Civilian Infrastructure under Attack in Ukraine

Cultural Heritage under Attack in Ukraine
"The city soon ordered the old building opened as a bomb shelter because of its nearly solid walls and its large basement."

"New arrivals registered and were told where the classroom used to be.
Just past the registration was a warm welcome; a waiter with hot tea."

"Many workers estimated around 1,000 people were inside at the time of the strike, but the most anyone escape, including ropers, was around 200.
The survivors primarily left through the main exit or one side entrance on the other side and the back were crowded."

"The theater's set designer used white paint to inscribe the word "CHILDREN" on the pavement outside, in the hope of forestalling an attack from above. The signs were large enough to be read even from satellites."

"On March 13, a better-than-expected hospital in a nearby hospital was a few blocks away and some pregnant women moved to the theater for safety."

"By this time, the city no longer had electricity, fuel and water.
The theater became a place where anyone could get food and water supplied by the Red Cross or other relief organizations, with a small cash dispensary."

"By March 14, and by 200 people crowded into the building, sleeping in offices, corners, in the theater, and the basement. They fixed the curved hallways and the waren of backstage offices and dressing rooms."

"People sat in the auditorium on once plush seats whose stuffing was used as kindling for cooking fires."

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A STAGE ABOVE THE RUINS, A PERFORMANCE OF TESTIMONY

Visitors explore the building by themselves.

My design attempts to find new ways of repairation, distinguishing from the traditional way of restoring them to their original form but altering them to become the ruins as a means of history by keeping the past.

"The rear and right sections of the theater are to be completely dismantled, but the front part will be left intact as the 'basis of the reconstruction.'"

"The bombed ruins, the excavators that are erasing the traces of violence, the barriers that encroach on the cultural territory will all be preserved and fixed forever in this moment as evidence of Russian war crimes."

"Not only photographs, videos, interviews, testimonies and social media posts, but the architecture itself can become a testimony and a witness to history."

"In this design, the creation is collecting the evidence of what happened, and bringing together to help people work on collective memory that is gradually disappearing."

"Visitors are free to travel around and explore the stories behind the buildings, and to immerse themselves in certain scenes with the help of new technologies."

"As a flexible spatial structure, scaffolding provides curators and artists with the possibility to play spaces freely, creating a richer form of interaction between people and architecture."

PHASE 3: REPARATION
A STAGE ABOVE THE RUINS, A PERFORMANCE OF TESTIMONY