

The Hammam

The Restoration and Revitalization of
Tehran's *Qibla Hammam*(The *Khanum Hammam*)

by

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کر رفیق شفیع دست پیمان باش
حریف حجره و کرباره و گلستان باش

Your pledge to your lover you shouldn't forget
Your company you owe him, and it is a debt

Hāfez-e Shīrāzī: Ghazal 262'



Water as the Holiest
Natural Element,
Signifying Purity,
Brightness and
Cleanliness

Abstract

Humans have always sought sources of water for different purposes, such as drinking, watering, and cleaning. Moreover, cleansing and ablutions often play a part in different religious rituals. Faithful followers of particular religious groups are compelled to perform ablutions, which they believe are essentially to getting rid of impurity and sin.

FIGURE 1: Worship with Water



In ancient Persian culture and belief, water is considered the holiest natural element, signifying purity, brightness and cleanliness. The public bath – the hammam – is one of the most ancient and enduring buildings that we find in Iran. It is a place to wash and cleanse the body, as well as meet and make acquaintances, but it also serves as a centre for socialization and a cultural hub in each district. This thesis explores the history of the public baths on the architecture of Iran and their significance for urban heritage. The dissertation first contextualizes the concept of the hammam within the Persian tradition, particularly as an interactive cultural forum. Subsequently, we propose a set of ideas, possibly standards, to meet the contemporary needs of the public and indicate ways in which they can benefit from - and allow for – the continuity and construction of public baths in the future. The design proposal involves the restoration and revitalization of the *Qibla Hammam* (also known as the *Khanum Hammam*) In Tehran, a public bath from the *Safavid* dynasty (1501–1736).

Acknowledgments

My personal experience made me interested in researching and examining the current state of restoration, conservation and revitalization of Iranian urban heritage. I retain vivid memories of my personal life from the urban heritage in the historic urban structures that due to the lack of standard maintenance have closed down and,unfortunately, are mere ruins, while others have been transformed, having various new public or private functions. However, external experiences of close relatives and friends propelled me to examine this issue further, and to base my thesis survey on the restoration, design, and revitalizing of one of the urban heritages in the historical urban fabric.

First and foremost, I would like to thank my family, specially my father and mother as well as my sister for their complete support and encouragement ,and also my close friends for providing me with the support and motivation that pushed me to bring this project to completion. I would like to thank my thesis advisor ,Roger Connah and design advisor Johan Voordouw, for keeping me encouraged and focused on formulating a solution to a an issue that collectively affects almost every individual in contemporary society.

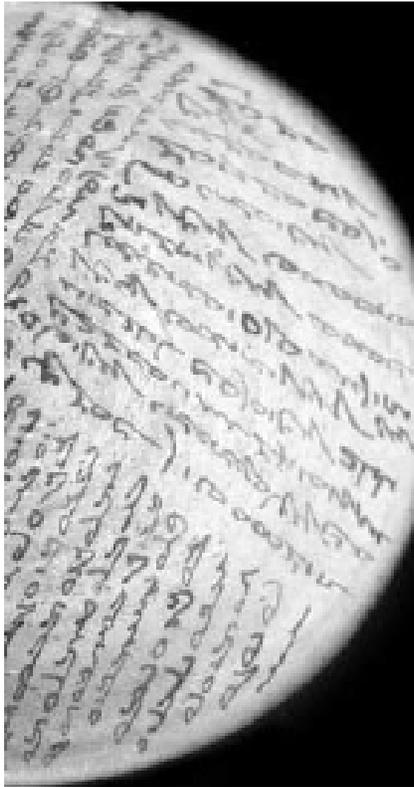
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Introduction

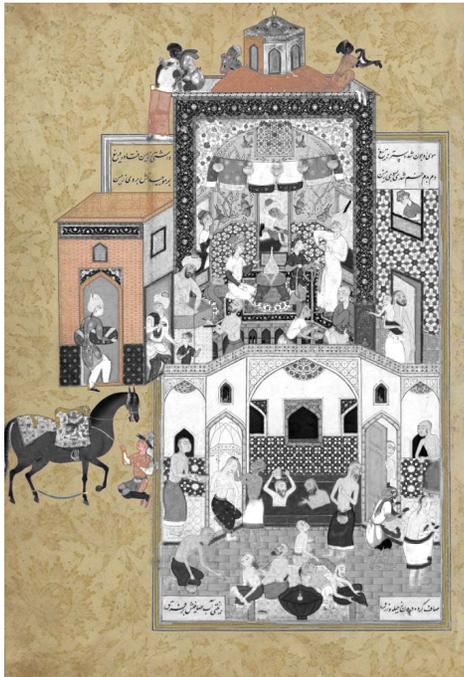
Water is the most necessary, natural and beneficial element for the survival of living creatures, as well as for the cleanliness of body and spirit. Persians saw water as part of a dynamic and living cultural heritage.

FIGURE 2: Ablution of the body and spirit



In ancient Persia, as supported by Pirnia, abluion was considered a primary building block of life.² This ritual practice was an important element in ancient religious beliefs and traditions even before the existence of Zoroastrianism. For example, Mithraic rituals were performed after undergoing abluion. Mehr worshippers, moreover, while participating in their religious ceremonies, immersed themselves in water at specific intervals for three days and three nights before the final ritual ceremony.³ For instance, the worshippers built their temple, called *Mihra*, near a water source or fountain.⁴ Zoroastrians consider water blessed and sacred. By cleansing their body and spirit with water, they are able to deeply connect with the Guardian of Water Angel.⁵ The importance of bathing continued in Persian lands, even after they turned to Islam following the Arab invasion, which put a particular emphasis on abluion prior to praying.⁶ Thus, bathing plays an important role in the cultural heritage of the Iranian community, as it signifies the purity of the body and soul.

FIGURE 3: Haft Awrang



The most important book of the Safavid era after the Shahnameh of Shah Tahmasp. It shows a hamam (Persian bath) Apart from cleaning and shaving, hamam was also a place for socializing eating, drinking and entertainment.

For as long as water was a crucial element for Persian culture, the hammam has been a vital part of the cities in Iran, deeply embedded in the historic urban fabric.⁷ The hammam is a specific type of building with distinctive architectural features and relies on the use of abundant amounts of water. The hammam's architecture, design and importance in the traditional context of cities and rural areas signifies their social relation, which is closely linked with ritual and local mores. The hammam, as an interactive cultural forum, played a similar role as to that of social media in modern society.

One of the many benefits of the public baths is that they provided opportunities for people of a particular district to come together for a common, spiritual purpose regardless of their ethnic or cultural background.⁸ As supported by Rooholamini (an Iranian anthropologist) in modern times, the plurality that the hammams provided has been replaced by our current striving for individuality. The hammam can help restore plurality in a way that is more beneficial to each individual, rather than an individual striving for his/her own good. It is also correlated with the knowledge and techniques of traditional medicine, which reinforces the hammam's value to society. Hammans acted as a center for individuals to come together as a community for the purpose of their own short- and long-term well-being, and they came to represent an important aspect of the heritage of Iranian communities.⁹

FIGURE 4.5, Hammam as an interactive cultural forum



Writings and historical references, especially travel logs and poems, constitute a significant amount of the evidence that we can use to assess the role of the hammam in Iranian architectural and urban history. Poems encode cultural and historical information. For instance, *Shahnameh*, an epic poem written by Ferdowsi (940–1020 CE) that is often also considered a historical source, frequently mentions the *Garmabeh* (bath).¹⁰ Hammams are buildings that serve a very special function and can differ in appearance and design, depending on their specific function within the district in which they were built. Most commonly, the hammam consists of a change room and bathing space, which are both covered by domes. The construction of baths became popular throughout many Iranian cities during the *Safavid* dynasty (1501–1736). The *Qibla Hammam* (also known as the *Khanum Hammam*) was built in A.D. 1558 and was the first public bath in Tehran. In addition to its location in one of oldest neighborhoods of Tehran, the *Qibla Hammam* has both cultural and artistic relevance.¹¹

Iranian cultural values are enshrined in the religious foundation and still rely on water for ritual purification before prayer, which signifies the importance of urban regeneration as a critical tool for sustainability and neighborhood vitality. Thus, any effort to restore and conserve such historic structural designs would offer numerous benefits to the economy of

Iran, its people and its cultural heritage. Such projects could promote urban regeneration, which would help control development in the historical centers and preserve the surviving urban fabric.¹² The restoration of historical buildings promotes urban regeneration, as it focuses on a wide-ranging theory of deterioration analysis, and a commitment to creating and preserving sustainable communities. Urban restoration is the concept of breathing life into an urban story that has fallen into decay. Most of these buildings are symbolic and meaningful to the history or origins of a city.

The restoration and revitalization of the *Qibla Hammam* might help define a policy of contemporary urban regeneration for the people of that region. Studies conducted in these districts (Iranshahr, 2003) note that the hammam is an important building, as well as a social entity, but that it needs to be upgraded to meet the demands of contemporary society. As a cultural heritage site, the *Qibla Hammam* enhances the local identity of the city and

provides its residents with a place to meet and interact. In antiquity, hammams would provide private spaces for cleansing, while also serving as public spaces for social gatherings. Today, most hammams are abandoned, but the *Qibla Hammam* is still used by the poor members of the community.

The design proposal aims to restore and revitalize the *Qibla Hammam* and add an extension with additional programs to further accommodate the community's needs, while also being accessible to everyone in the community. The extension to the *Qibla Hammam* will provide public and private spaces that can be used by all ages. The public spaces will include a coffee shop, a pool for kids to play and gathering spaces for social interaction. The private spaces consist of meditations spaces, saunas and baths with varying temperatures. The meditation spaces are completely private, as they are designed to separate the individual from the outside world. The baths are a vital component of the spa and four different baths will be available, each with different themes and

temperatures; the fire bath is the hottest bath, the sound bath is kept at body temperature and is accompanied by relaxation music, the Rosewater bath is lukewarm and the coldest bath is that which contains the Damavand mineral water

The methodology for the present design considers contemporary social functions, particularly with regards to its social and aesthetic design for extension space in the *Qibla Hammam*. The renewed *Qibla Hammam* will incorporate contemporary elements of spirituality (water and light), functionality (bathing), social forums (communication) and urban identity (historical context), rather than simply including modern objects and products. The design will be primarily based on an examination of the historical context of the *Qibla Hammam*, which is followed by an analysis of the building's structure, forms and materials.

PART 1: How Persians Became Familiar With the Hammam

FIGURE 6: Ablution of the body and spirit in river



[1.1] Concept of water

We will now briefly contextualize the history of Hammams, that is, how they came into existence and how they were used by ancient Persians, resulting in their cultural significance in contemporary Iran. The four natural elements (air, water, fire and earth), water in particular, are deeply rooted in Iranian beliefs. In Persian culture, humanity has always appreciated its relationship with water and valued its traits. Introducing impurities into clean water was considered a sin and an unforgivable act. Water was also used to clean one's body before prayers and pilgrims would wash themselves before attending religious ceremonies.¹³

[1.2] History of Hammam

Most religions emphasize purity and cleanliness. The history of ritual bathing and washing in Iran can be traced back prior to the birth of Zoroastrianism in the seventh century B.C.¹⁴ As previously mentioned, ablution was considered a primary building block of life in ancient Iran. In Mithraism (2200-1200), the Mehr worshippers took ritualistic baths prior to participating in their religious ceremonies; this was itself a religious ritual.¹⁵

Practitioners generally built their temples close to a spring or source of running water so as to facilitate these spiritual and ritual ceremonies. With the rise of Zoroastrianism in ancient Persia, particular attention was given to cleanliness. Zoroastrians praised Anahita, the water goddesses.¹⁶ Anahita was considered “the best known divinity of the Persians”.¹⁷ She was the protector of water and a goddess of fertility.¹⁸ According to Dr Sajjadi (Professor and scholar of Persian Language and Literature), newborn children were given their names after the ablution ritual, which took place in a dedicated space that was close to the temple.¹⁹ Ablution was part of the process of re-birth, which purified the body of its past impurities and sins.

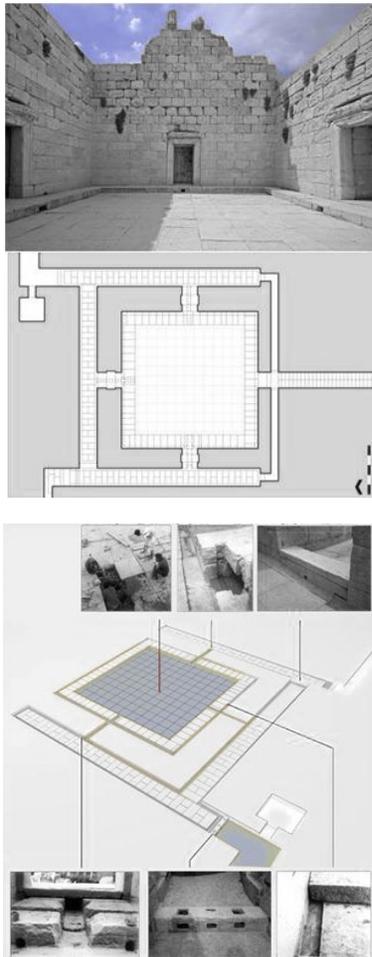


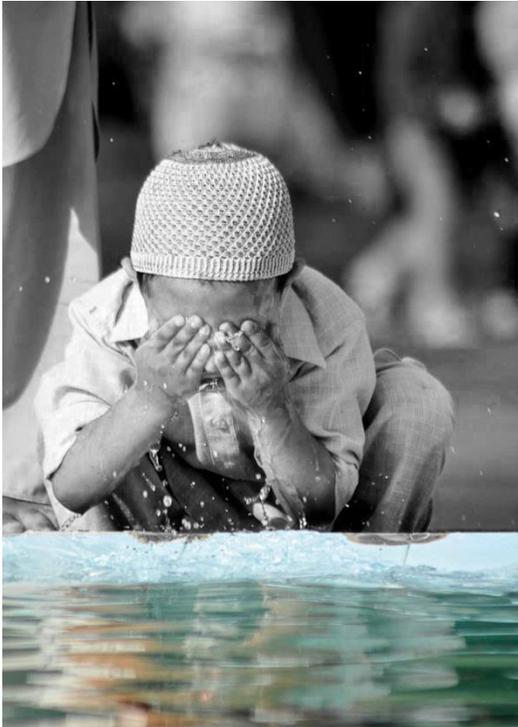
FIGURE 7: Anahita temple in Bishapour

FIGURE 8 :Thanksgiving and Praise of water picture in Zayanderood river (Isfahan)



Celebration and appreciation of water has always been part of the Iranian tradition, some of these rituals are still practiced today. The *Zayanderud* is largest river in Isfahan, Iran, its history stretching back several thousands of years. The *Zayanderud* still plays a critical role in the lives of the people who live near its banks, such as: make the urban living spaces of leisure, recreation and celebration along to it. Although the ancient ritual of Thanksgiving which appreciates this source of water is not celebrated throughout the entire country, the Isfahanian People still celebrate it by playing the traditional Persian drums called the *Sorna* and *Dohol*.

FIGURE 9: Boy Making Wudu (Ablution)



According to the *Quran* :

“O, you who believe when you prepare for a prayer wash your face and your hands to the elbows then; rub your head with water and wash your feet to the ankles. If you are in a state of ceremonial impurity bath your whole body but if you cometh from offices of nature or you have been in contact with a woman and you find no water then take for yourselves cleans and or earth and rub therewith your faces and hands: God does not want to place you in difficulty but make you clean and to complete his favour to you that you may be grateful”²⁰

FIGURE 10: The key to Jannah is prayer and the key to prayer is cleanliness.



FIGURE 11: The Green Worship Practices



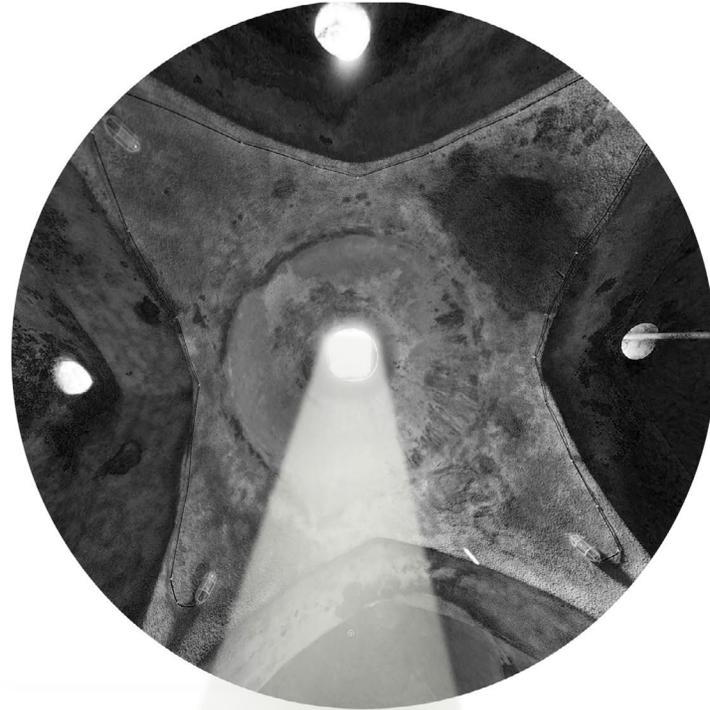
Even during the Islamic Age (570-632 AD), the washing of the head and body, as well as keeping garments clean, were necessities for Muslims. According to a *Sahaba* of Muhammad (AD 628), Ibn Malik Al- Ashari (a companion of Muhammad and important figure in early Islamic history) wrote that “cleanliness is half of faith.”²¹ The soiled water that was used for bathing was poured on the floor or thrown into the air and never mixed with clean, fresh water. In addition to hygiene and cleanliness, the mystical and spiritual perceptions of water and its usage also illustrate the highly valued status of the *Garmabeh* (bath) in Islamic studies. This research demonstrates that which *Allah* has been trying to show us; that is, water is essential for survival and without it, we cannot grow crops, perform our daily ablutions or nourish our animals.

Allah speaks about the importance of water in the *Qur’an*, saying:

And we send down from the sky water in (due) measure, and we gave it lodging in the earth and verily, we are able to take it away (Surah al Mu’minun 23:18).²²

As Islam spread across the region, many *Garmabehs* were constructed and keenly approved by the public. Hammams that were constructed after the emergence of Islam gave rise to two distinct features in Iranian architecture. Firstly, they were built with high technical elements, such as the cupola, an architectural feature that crowned the hammam and let daylight into the building. Secondly, it had a significant social impact on the public in a ritualistic sense. It is the combination of these features that defines the specifications of a hammam in the Islamic era.²³

The concept of light is important to this thesis as it relates to the functional and symbolic use of natural light in the *Qibla Hammam*. In traditional hammams, natural light penetrates the space through an oculus or a small opening. This sharp ray of light in the darkness is symbolic of the building's higher purpose, while also serving a practical function



*"God is the light of the Heavens and the Earth:
The likeness of His Light is u a niche wherein is a lamp,
The lamp is a crystal,
The crystal as it were a shining star;
Lighted it is from a blessed tree,
an olive, neither of the East nor of the West,
whose oil would well-nigh flare
though tire touch it not:
Light upon Light:
God guideth to His Light whom He will,
For God coineth parables for men.
And God is All-knowing of all things"²⁴*

FIGURE 12 praying under the Qibla hammam cupola



[1.3] Concept of Light in the Hammam

FIGURE 13/14 : Relation between architecture, light and sky in the Qibla Hammam Cupola - Shapes and types of the opening : Skylights on the Qibla Hammam



Light also played an important role in ancient religions and it is often regarded as the entity that connects the universe. It still plays an important role in modern religions, especially in the construction of mosques and churches. According to the Avesta, In ancient Iranian Mithraism, God was the originator of light and he was called Mithra or Mitra, which means God of Sun.²⁵ In the Zoroastrian tradition, in order to fight the devil, God's light must first be shined on the devil. The light from God gradually grows and represents the sign of all good deeds, while also serving as a tangible symbol of God.²⁶

In Islam, light has had a very high value, as even a *Surrah* in the *Quran* is dedicated to light (Surrah Al Nur, Verse 35 (24: 35)).²⁷ Souhrawardi (1154-1191), a great philosopher who is known as the Master of Illumination, mentioned the glorious shining light originating from the sun numerous times in his writings. Light, as the prerequisite for every kind of visual perception, plays an important role in any discussion of architecture. Light has the ability to create a beautiful and spiritual space, which ultimately plays a central role in the fostering of mental peace and physical comfort, in addition to being functional.²⁸ Light is not just a physical necessity, it has a psychological value that is an important factor in all dimensions of human life.

According to Pirnia, a prominent architectural historian, providing appropriate light was considered to be one of the most important design factors of the hammam in ancient Iran. The incorporation of daylight from an opening in the dome was a common technique that was used to illuminate the interiors of buildings, including hammams. The concentration of light in the cupola alludes to Souhrawardi vision of light, that is, the “Light of Essence.”²⁹

As Souhrawardi recalls:

*The Essence of the First Absolute Light, God, gives constant illumination, whereby it is manifested and brings all things into existence, giving life to them by its rays. Everything in the world is derived from the Light of his essence and all beauty and perfection are gift, of his bounty, and to attain fully to this illumination is salvation.*³⁰

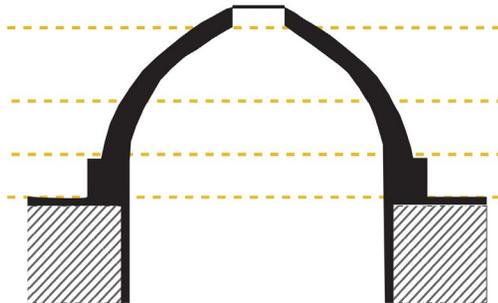


FIGURE 15: The light- opening in the top area

“In roof-lights, there is a view towards the sky and the possibility of getting light from sunrise to sunset. In addition, there was no risk to the privacy, an important issue in the Iranian culture”³¹ Water and light are basic elements of life and they are both used for practical and ritualistic purposes in the *Qibla Hammam*.



FIGURE 15: Light Shines Through the Oculus and Illuminates the *Qibla Hammam* Steam Room

Conceptual model for the position of water and light in the Iranian architecture

FIGURE: The Pool(Howz) it is a centrally positioned pool



FIGURE : The oculus (Gol - jams) it is a light opening on cupola



Functional value Contributing toward light reflection
 Freshness of space
 Contributing toward spatial broadness
 Washing-up

Admitting light ventilation
 Admitting light into inner spaces
 Light refraction

Conceptual value Symbol of light and Brightness
 Symbol of cleanliness
 Transparency

Privacy
 Limited visibility
 Sky view

Cultural value Brightness
 Cleanliness
 Holiness
 Blessing

Focusing on the sky
 Privacy
 Limited visibility

Esthetic value Reflection of images
 Reflection of light
 Reflection of sky in Water

Visual effects of light
 Creating virtual composition
 Light and shadow



The Hammam functional buildings

- Place to wash
- Clean the body
- Place to meet
- Make acquaintances

FIGURE 16/17: People socializing, shaving and getting a massage in *hammam*



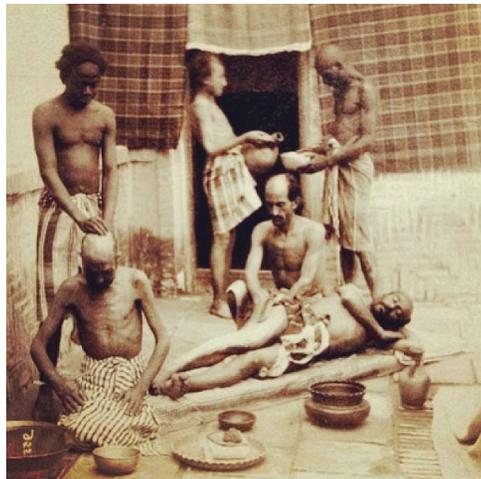
[1.4] Concept of Hammam

According to Rooholamini, the principles of taking a bath in a hammam (*garmabeh*) were similar, yet more elaborate, in ancient Persian (approximately 1500-2000 years ago) to those of showering today. The *Garmabeh* was a warm building with a giant bowl, called an *abzan*, which heated up the water.³² Archeological evidence for the *Garmabeh* can be traced back to the Achaemenid Empire (559–330 BC). Moreover, a royal tradition states that all maidens chosen by the King were to bathe in the *garmabeh* with perfumes, flowers and fine fragrant plants for six months before they were to be introduced to the king.³³

According to the Roshan Cultural Heritage Institute of Iranian studies, the building of public hammams became more common in the Sassanian Empire (A.D. 224–651) to the point which they became an important amenity in all of the major Persian cities.³⁴

The public bath played a significant role in terms of social relations, rituals, traditional customs, science and medical techniques, all of which emphasize the hammam's value in society. Besides their function related to individual and public hygiene, they played a greater role in maintaining good mental health. In ancient Persia, bathing and visiting the hammam formed part of one's cultural identity. It was a place which welcomed individuals from every social class; thus, according to Sibley-Behloul, it functioned as a place for both bathing and *patogh* (habitual gathering place).³⁵

FIGURE 18/19: Iranian old group bath (khazine)



In the ancient world, therefore we tend to express the concept of the hammam as a *patogh*. In modern society, however, the traditional hammam has gradually disappeared and has been replaced with amenities such as swimming pools and spas. Nevertheless, there are major differences between swimming pools, spas and hammams. For instance, swimming pools and spas are classified by social hierarchy yet hammams can be used by all social class.

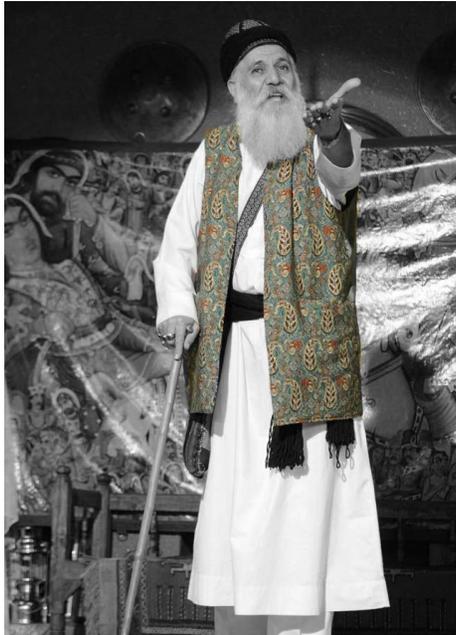
Hammams were a place to meet, exchange viewpoints, resolve social issues, trade, partake in medical treatments, find solitude or even reconciliation; of course, in the Islamic Era, as today, it was also a place to gossip. Much like the bazaars, the hammams spread public news to rural areas, neighborhoods and districts. It was difficult for important news to remain hidden from the public and here it could be 'shared' almost immediately; thus, acting in a similar fashion to our modern concept of social media.³⁶

Aside from serving as a place at which individuals could exchange ideas, hammams were also a safe place to discuss politics and plan social or subversive political change. For instance, Amir Kabir, prime minister of Iran and a controversial historical figure, was assassinated in 1852 on the order of Nasser al-Din Shah Qajar at *Fin Hammam* in Kashan.³⁷

Spending time at the hammam was once one of the most common pastimes of Iranians. For some men, it was an ideal place to spend time, from dawn to dusk, as they could gamble, party and eat well. Women who bathed at the *Garmabeh* sometimes spent up to six hours at the facility, as they would bring food and fruits to eat while being brushed and massaged, which were some of the services offered at the hammam. Plums, melons, watermelons, squash, cucumbers, carrots, cutlets and kuku were favorites.³⁸ Most of these activities still exist in Iranian society, but they take on different forms and occur in diverse places. For instance, swimming pools and spas have built in cafeterias and some even have entertainment rooms. Thus, any new or restored hammam must update their structures, decorations and programmatic functions in order to meet the needs of contemporary society and attract the younger generation.

The importance of social gatherings and the storytelling that occurred in the hammams gradually evolved into its contribution to both poetry and literature. As a result, poets, philosophers and scholars began to create art within the hammam; poets described the social milieu of the hammam, while Persian miniature painters depict it in their works, leading it to become a major genre in Iranian fine art.

FIGURE 20/21: Shahnameh-khani and Naqqali of Shahnameh in hammam, today some of former hammams are used as performing spaces.



[1.5] Hammam in Persian poetry and literature

Aside from traditional poetry and literature, other popular entertainments in the Hammam include mythical storytelling, which can be divided into two types of performances: *Shahnameh-khani* (singing the exact verses of the *Shahnameh* from memory or using the book without any manipulations) and *Naqqali of Shahnameh* (narrating stories of the *Shahnameh* with special tone, feeling, expression, gestures and movements).³⁹ Safa notes that the *Shahnameh* always held a prominent position in Persian culture and literature.⁴⁰ Typically, poetry and literature deeply reflect the history, cultural values and ancient religions of ancient societies, in this instance, the Persians. Persian literature took advantage of the hammam as one of society's most enduring cultural and social centers, which in turn has helped to keep the ancient literature and traditions alive, while also providing us with a new interpretation of the *Garmabeh*.⁴¹ The effect that the hammam has had on literature can be seen in various stories and poems. For instance, the bath served as a metaphor for spiritual purification in the *Shahnameh* (Ferdowsi) and the Spiritual Couplets of Rumi (Rūmī), but it could also be depicted with a certain amount of humor, as various bathhouse activities are depicted in the epigrams of Mulla Nasreddin.

FIGURE 22: A 17th century miniature of Nasreddin



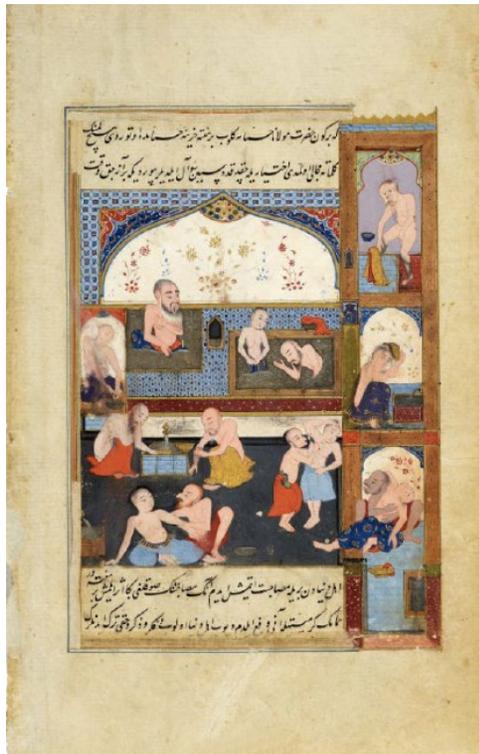
Mulla Nasreddin in The Turkish Bath:

One day Mullah went to a Turkish bath but as he was dressed so poorly, the attendants didn't pay much attention to him. They gave him only a scrap of soap, a rag for a loin cloth, and an old towel.

When Mullah left, he gave each of the two attendants a gold coin. As he had not complained of their poor service, they were very surprised. They wondered that if they had treated him better whether he would have given them even a larger tip.

The next week, Mullah came again. This time, they treated him like royalty and gave him embroidered towels and a loin cloth of silk. After being massaged and perfumed, he left the bath, handing each attendant the smallest copper coin possible. "This," said Mullah, "is for the last visit. The gold coins are for today."⁴²

FIGURE 23: Rūmī Spends a Day in the Hot Baths of a Hammam



Bathing was a traditional pastime for *Sufis*, and for Rūmī, in various stories and poems, the bath served as a metaphor for spiritual purification. Here Rūmī sits by himself in one of the two pools set within the arched recess to cure a cold caused by “contact with the vain people”. Elsewhere, and with a certain amount of humor, various bathhouse activities are depicted.

Comparison of the world to a bath stove, and of piety to the hot bath.

*“The lust of the world is a bath stove,
Where by the bath of piety is heated;
But the lot of the pious is purity from the stove’s filth,
Because they dwell in the bath and in cleanliness.
The rich are as those that carry dung
To heat the finance of the bath withal.
God has instilled into them cupidity,
That the bath may be warmed and pleasant.
Quit this stove and push on into the bath;
Know quitting the stove to be the bath itself.
Whoso is in the stove-room is as a servant
To him who is temperature and prudent.”³⁴³*

Jalāl ad-Dīn Muhammad Rūmī (1255)”

[1.6] The Hammam Today

Despite the fact that the hammam had a great impact on the culture of Iran, the growth of cities and the impact of the West on Iranian culture and urban life led to an initial reduction in the use of hammams.⁴⁴ Even women who enjoyed taking prolonged baths were no longer willing to spend hours at the hammam; modern society has lost the drive to partake in public bathing. Thus, these social and cultural changes have resulted in the collective nature of the bath to be replaced by individualism.⁴⁵

To summarize, the hammam was once a key element of urban architecture, but today the notion of a bath has been replaced by a fixture in a washroom. Unfortunately, in the past few decades, as a result of changing social conditions, hammams have been gradually demolished, destroyed or converted into commercial buildings for different purposes. In the next section, we explore one of the remarkable remaining hammams from the *Safavid* dynasty. Firstly, we briefly examine the historical context of the *Qibla Hammam*, then we explore each room of the *Qibla Hammam* and their functions, focusing particularly on the ways in which it could be made compatible with the needs of modern Iran.

Chapter Notes

1. Shaida, Khalid Hameed. Hafiz, Drunk with God: Selected Odes. Charleston, SC: Khalid Hameed Shaida], 2010. 198.
2. Mohamm.d Karim Pirnia (in Farsi) " Memari Irani" (Iranian architecture).5th ed. (Tehran: Soroush Danesh, 2008) 380.
3. Mehrdad Hejazi and Fatemeh M. Saradj, Persian Architectural Heritage: Architecture (Boston: WIPress, 2014), 91.
4. Ali Reza Lofti and Hosein Masjedi (in Farsi), Garmabeh's Glossary: With the Approach to Isfahan Baths (Tehran: Aban Book, 2013), 41.
5. Ali Tahmouri and Sarvenaz Hoseinrazavi, "Study about Presence of Nature in Iranian Architecture with Analytical Approach on Water," WAP 3, no. 9 (2013): 408.
6. Mehrdad Hejazi and Fatemeh M. Saradj, Persian Architectural Heritage: Architecture (Boston: WIPress, 2014), 91.
7. Ibid.91.
8. Mahmood Rooholamini. Pubic Bath: Today's Society and Culture and Literature (Tehran: Ettelaat, 2007),40-43.
9. Dumreicher, Heidi, Richard S. Levine, and Magda Sibley-Behloul. "Hammam Rehabilitation Reader." 2012. Accessed August 5, 2015. <http://mimar-architects.com/reader.pdf>.59.
10. Ekahe Rezayi and Mehdi Bataghva (In Persian)"Hammam dr Sher v Adabiyat Irani" (Hammam in poetic literature of Iran) Ketab-e- Mah-e- Honar 58 (2003):179-76.
11. Moghdsiyan, Abdol Majid (In pFarsi) "The Qibla Hammam (The Khanum Hammam)." IRANSHAHR Encyclopaedia of the Iranian Architectural Histor. 2002. Accessed August 5, 2015. <http://www.iranshahrpedia.ir/>.
12. Behnam Pedram, Mohammad Reza Aowliya and Reza Vahidzade (In Persian), "Evaluation of the Authenticity in Conservation of Persian Heritage: The Role of Continuity Vernacular Culture in Artistic Creation," Journal of restoration works and historical contexts, cultural 2 (2011)2-16.
13. Ali Tahmouri and Sarvenaz Hoseinrazavi, "Study about Presence of Nature in Iranian Architecture with Analytical Approach on Water," WAP 3, no. 9 (2013): 406-16.
14. Mehrdad Hejazi and Fatemeh M. Saradj, Persian Architectural Heritage: Architecture (Boston: WIPress, 2014), 91.
15. Ibid. 91.
16. Ali Tahmouri and Sarvenaz Hoseinrazavi, "Study about Presence of Nature in Iranian Architecture with Analytical Approach on Water," WAP 3, no. 9 (2013): 406-16.
17. Murdock, D.M. "Was the Persian Goddess Anahita the Pre Christian Virgin Mother of Mithra?" Stellar House Publishing. <http://www.stellarhousepublishing.com>
18. Ali Tahmouri and Sarvenaz Hoseinrazavi, "Study about Presence of Nature in Iranian Architecture with Analytical Approach on Water," WAP 3, no. 9 (2013): 406-16.
19. Ali Sajadi (In Persian), "Hammam v Estehmam" (Hammam and Bathing) Ketab-e- Mah-e- Honar 58 (2003):10-4.
20. Ali Abdullah Yusuf, The Meaning of the Holy Qurān. 11th ed (Beltsville, Md: Amana Publications, 2002),82.
21. Riyadh As-Salihin and Muhammad Zafrulla Khan, Gardens of the Righteous (London:Routledge, 1995). 11.
22. Ibid. 11.
23. Ali Reza Lofti and Hosein Masjedi (in Farsi), Garmabeh's Glossary: With the Approach to Isfahan Baths (Tehran: Aban Book, 2013), 26.
24. Ali Abdullah Yusuf, The Meaning of the Holy Qurān. 11th ed (Beltsville, Md: Amana Publications, 2002),82.
25. Verse (24:35) Sūrat L-nūr (The Light). The Quranic Arabic Corpus. <http://corpus.quran.com/>
26. Franz Cumont, The Mysteries of Mithra (Chicago: Open Court,1903), 2-3.
27. Ali Zamani Fard, Articles presented to the Conference on Bathrooms in Iranian Culture (Kerman: A.R.C., 2005), 65.
28. Zafrulla Khan (trans.), The Quran (NW, Olive Branch Press, 1997)

29. Seyyed Hossein Nasr, *Three Muslim Sages: Avicenna, Suhrawardī, Ibn 'Arabī* (Cambridge: Harvard University Press, 1964),73.
30. Ibid. 67
31. Ibid. 69
32. Vida Makani, Arezu Khorram and Zahra Ahmadipur, " Secrets of Light in Traditional Houses of Iran (Hot and Dry Climate)," *International Journal of Architecture and Urban Development* 2, no. 3 (Summer 2012),46.
33. Ali Reza Lofti and Hosein Masjedi (in Farsi), *Garmabeh's Glossary: With the Approach to Isfahan Baths* (Tehran: Aban Book, 2013), 24.
34. Ibid.25.
35. Ibid.25.
36. Dumreicher, Heidi, Richard S. Levine, and Magda Sibley-Behloul. "Hammam Rehabilitation Reader." 2012. Accessed August 5, 2015. <http://mimar-architects.com/reader.pdf>.52-58.
37. Mahmoud Rooholamini. *Pubic Bath: Today's Society and Culture and Literature* (Tehran: Ettelaat, 2007),42.
38. Ibid.54.
39. Ali Reza Lofti and Hosein Masjedi (in Farsi), *Garmabeh's Glossary: With the Approach to Isfahan Baths* (Tehran: Aban Book, 2013), 247.
40. Z. Safa (In Persian), *Hamaseh Sora'i dar Iran*". 4th ed. (Tehran: mir Kabir, 1363),215.
41. Ibid.225.
42. Eric Daenecke. *More Tales of Mullah Nasir-ud-Din, Persian Wit, Wisdom, and Folly, Volume II* (New York: Exposition Press, 1961),29.
43. E. H. Whinfield *Teachings of Rumi: The Spiritual Couplets of Maulāna Jalālu-'d-Din Muhammad I Rūmī = = Masnavi I Ma'navi* (London: Octagon Press, 1994),258,
44. Ali Reza Lofti and Hosein Masjedi (in Farsi), *Garmabeh's Glossary: With the Approach to Isfahan Baths* (Tehran: Aban Book, 2013), 285.
45. Dumreicher, Heidi, Richard S. Levine, and Magda Sibley-Behloul. "Hammam Rehabilitation Reader." 2012. Accessed August 5, 2015. <http://mimar-architects.com/reader.pdf>.194.

PART 2: Restoration and Revitalization of the Qibla Hammam

FIGURE 24/25/26: A view shoot of The Qibla Hammam Alley



[2.1] A Historical Hammam known as the *Khanum Hammam*

The building of hammams became very popular throughout Iran during the *Safavid* dynasty. The *Qibla Hammam*, also known as the *Khanum Hammam*, was the first public bath in Tehran, the capital city of Iran, during the rule of *Shah Tahmasp I* of the *Safavid* dynasty. It was built in A.D. 1558 and located in the oldest part of the city, the Na'eb-es-Saltaneh bazaar. The hammam was built on the order of *Shah Tahmasp I*'s sister, Pari Khan Khanum.⁴⁶

According to Gholsorkhi, a scholar within the field of gender studies in the *Safavid* dynasty, Pari Khan Khanum was an educated, influential and bright figure in the *Safavid* Empire.⁴⁷ She had varied interests that included the study of religion, calligraphy and poetry. Pari Khan Khanum, and the royal *Safavid* women in general, engaged in diverse economic activities, including patronage of the arts, architecture and religious institutions.⁴⁸ Aside from her patronage of the hammam, Pari Khan Khanum also commissioned the building of a school and a *tekiye* (a place where *Shias* gather to mourn).⁴⁹

Unfortunately, the school, named the *Khanum* School, was destroyed in 1722, when the Afghans attacked Tehran. Subsequently, a *Hussainia* (a congregation hall for *Shia* commemoration ceremonies) was built by the community on the place where the school once stood. The *tekiye*, which is adjacent to the hammam, was not damaged in the attack and remains functional to this day.⁵⁰

The hammam is located in a historical urban district, called *Chaleh Meydan*, which is close to the *Dool-Ab Gate* (a main *Safavid* dynasty gate). *Chaleh Meydan* is one of the oldest regions in central Tehran, in which the Tehran Grand Bazaar and many other cultural sites, governmental organizations and centers, ministries and embassies are located; although there are no traces of Tehran's ancient gates.⁵¹ In the *Chaleh Meydan's* neighbourhood there are several traditional old houses have been preserved. Even though the *Chaleh Meydan* is recognized as an important historical district in Tehran, it was regrettably largely abandoned to the elements over time. Moreover, this known region was a safe place and convenient for offenders. As a result, the mayor removed the name of this region from the map of Tehran in hopes of fostering a more positive future for the city.



FIGURE 27: The Tehran Grand Bazaar



FIGURE 28 : The pedestrian access through the alleys

FIGURE 32: Map of **The Chaleh Meydan regions**
The name of this region is not exist any more

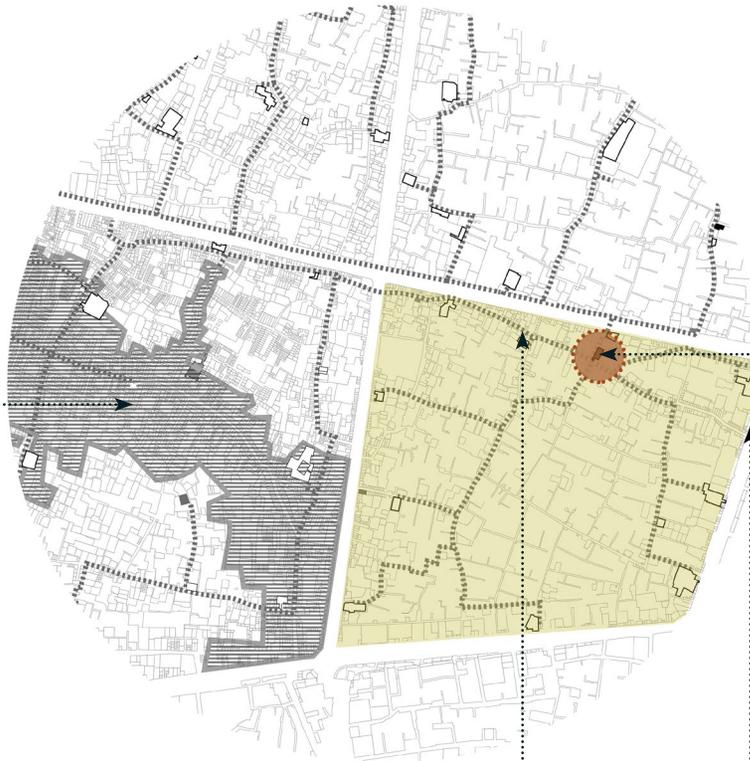


FIGURE :29 The Qibla Hammam



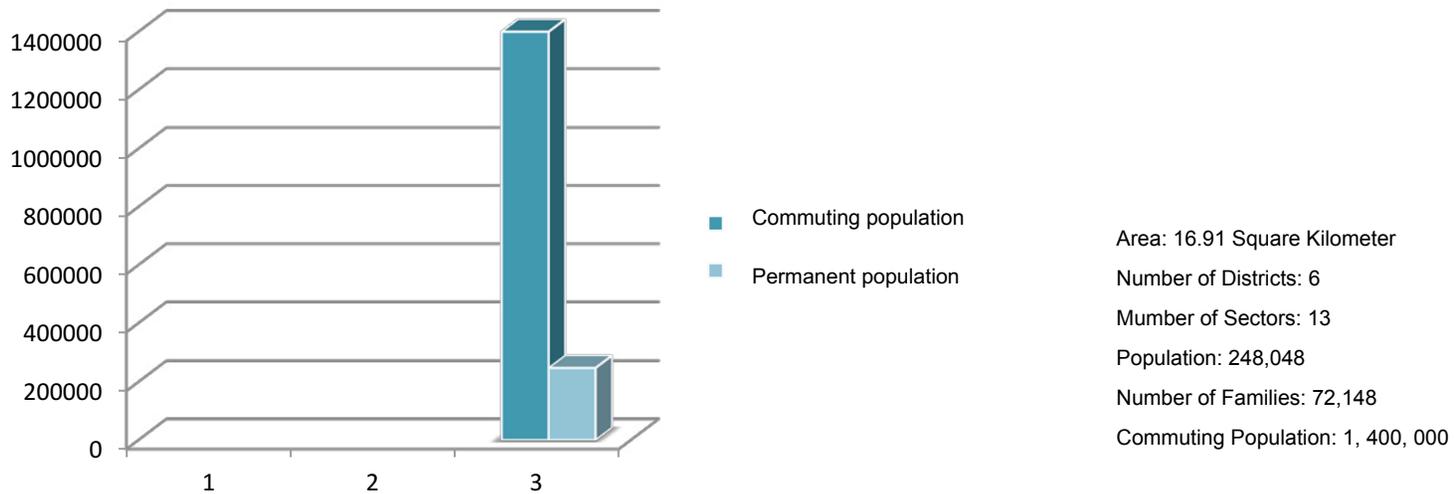
FIGURE :30 Dolab Gate

FIGURE 31: The Only Alley access to The Qibla Hammam



[2.2] History of the Site

The *Qibla Hammam* is situated in Tehran, the capital city of Iran. Tehran, as a metropolitan city, is the most populated and industrialized city in Iran. Tehran is situated in an area between the southern foot of the *Alborz* mountains the northern parts of the *Kavir* Desert, a relatively flat and very fertile. In antiquity, This region is considered as one of the most important cultural and social centres, since it was on the way of the main routes connecting the east to the west, the Silk Road.⁵² The population of the region can be divided into two major groups: those who permanently live in the region, and those who commute to the region to carry out commercial activities.⁵³



The population density in daytime and nighttime



FIGURE 32: The population density in daytime :
The Bazaar is occupied with men during the day
which means they are not usually available to
use such places like hammam.

The population density in nighttime:
The *Qibla Hammam* neighborhood is a residential
area which means women are more likely to oc-
cupy The hammam during day while men in the
evening.

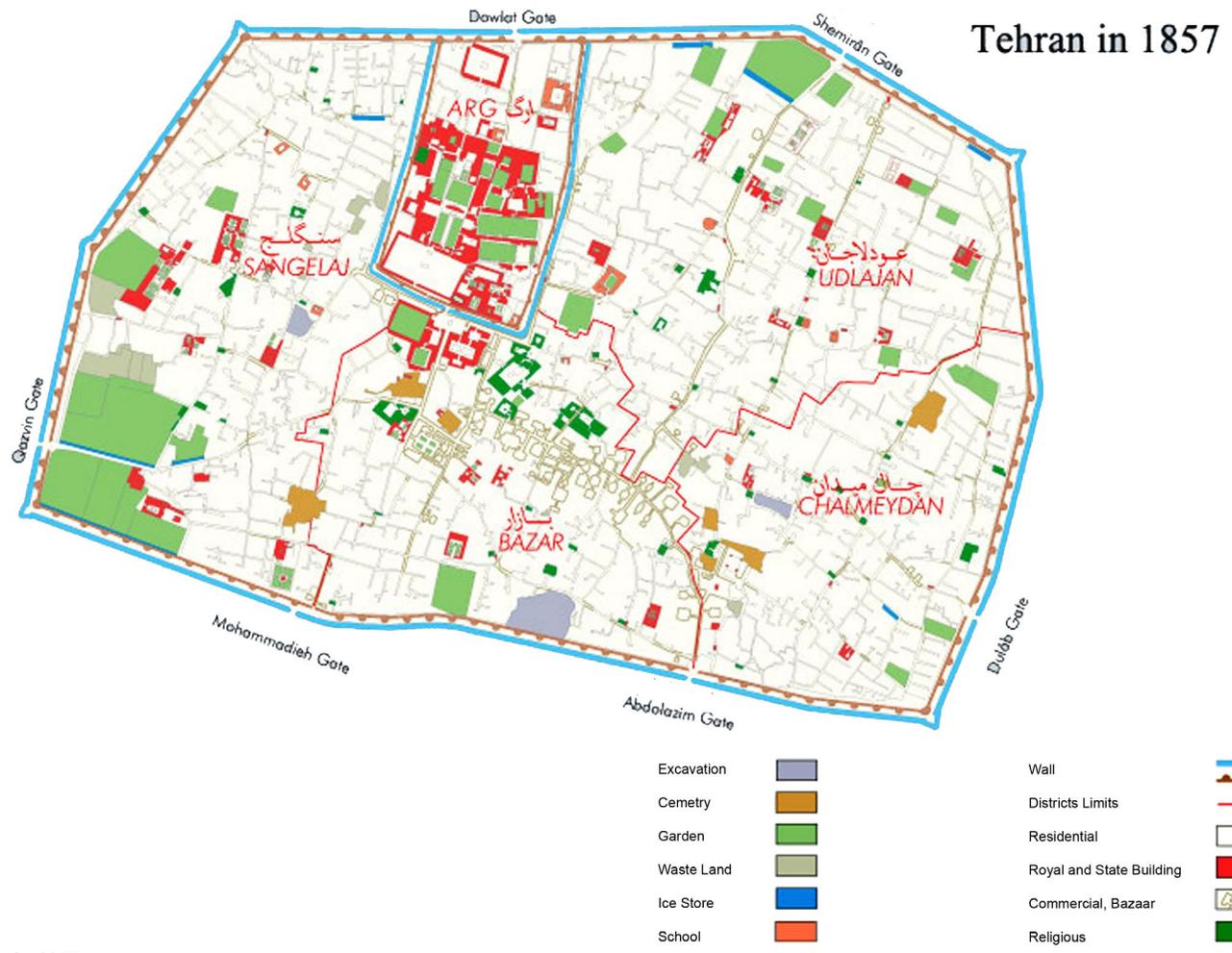


FIGURE 33: Tehran Map in 1857

Tehran in 1890

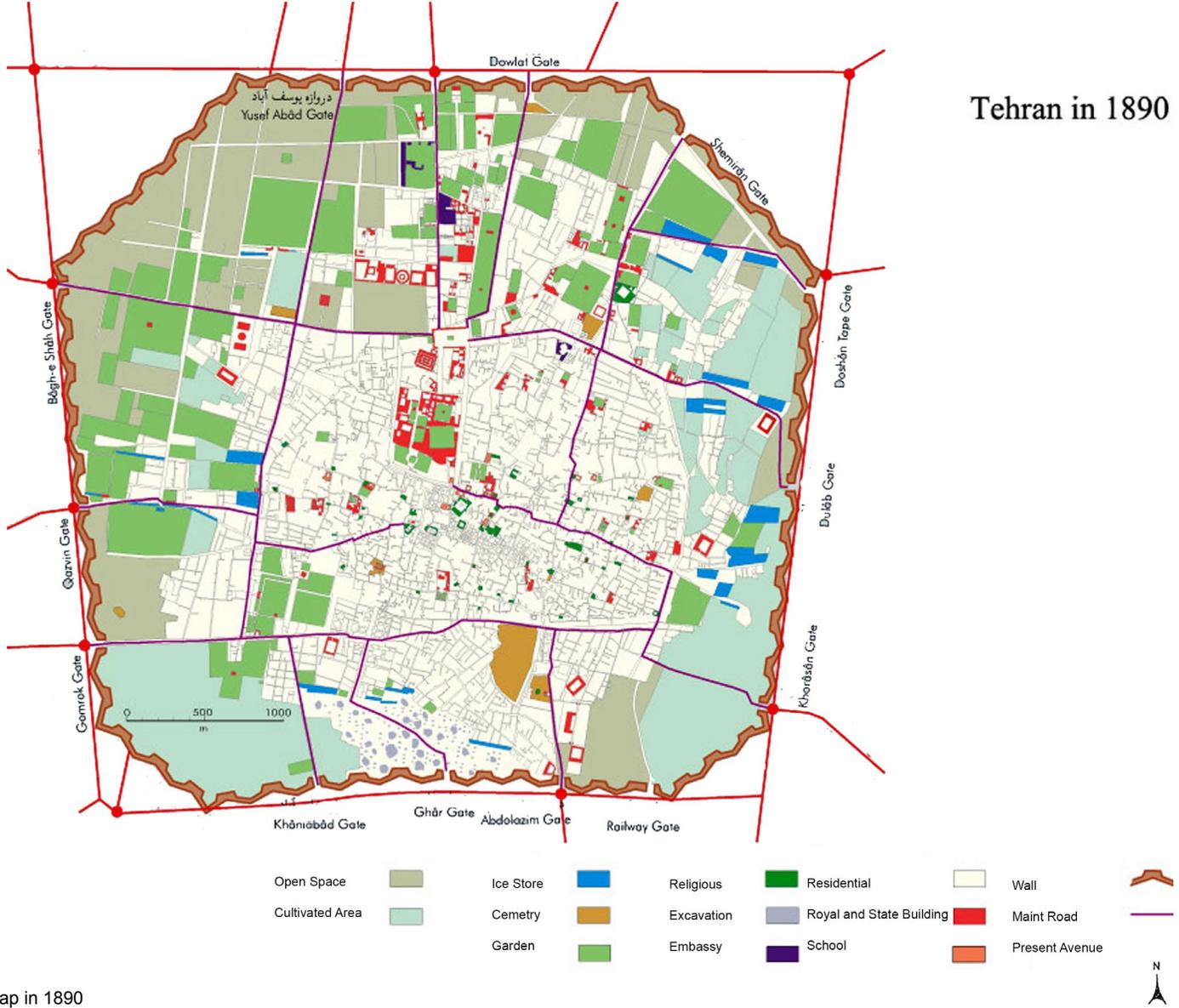


FIGURE 34: Tehran Map in 1890

The city of Rey, that today has been absorbed into the Tehran metropolitan area,⁵⁴ known as the “Central Iranian Plateau Civilization,” which dates back than 8000-12000 years, and its surroundings (an approximate radius of 100 km) was the birthplace of one of the most important human civilizations.⁵⁵

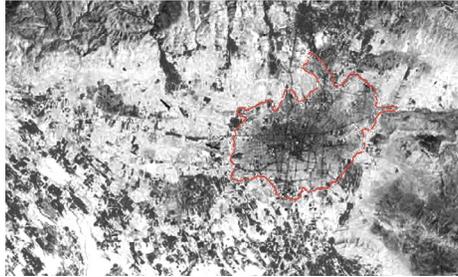
The presence of the renowned Silk Road and its suitable climate kept the region active throughout history, while also ensuring the survival of the city. Although it survived many historical struggles, Rey was demolished by Moguls in A.D. 1220.⁵⁶ Although the city turned into to prosperity under the *Safavid* dynasty, it never regained its previous status.⁵⁷

Therefore the importance of restoring and preserving the urban heritage and culture pertaining to the *Safavid* dynasty, particularly the *Qibla Hammam*, were emphasized by this contextualization of the city history. Being a populated commercial and economic core, this city with a new design, will demonstrate the benefits and economic values that the restoration and revitalization of the

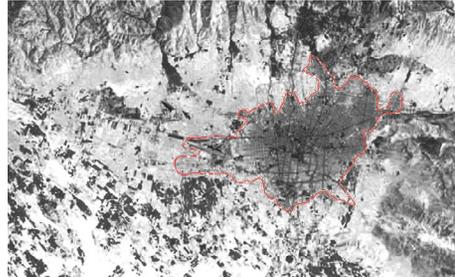
Qibla Hammam will have on the bazaar. The *Qibla Hammam*, as a urban heritage site, forms a valuable part of Tehran’s cultural and architectural legacy. As such, it must be re-considered during any urban development, as it represents elements of national and ethnical identities.

The Proliferation of Tehran

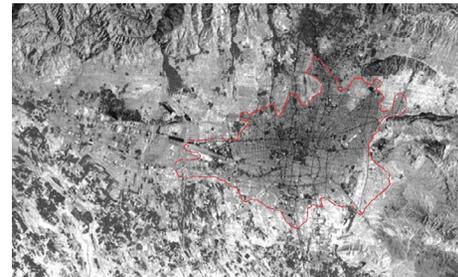
(1972)



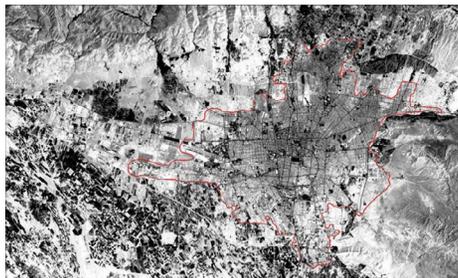
(1974)



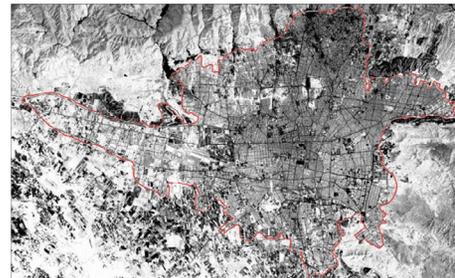
(1979)



(1984)



(1991)



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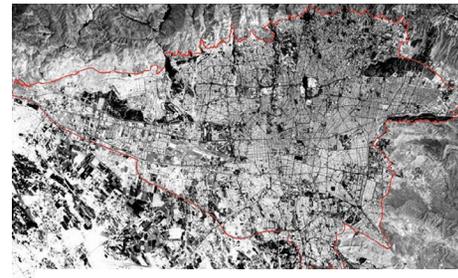
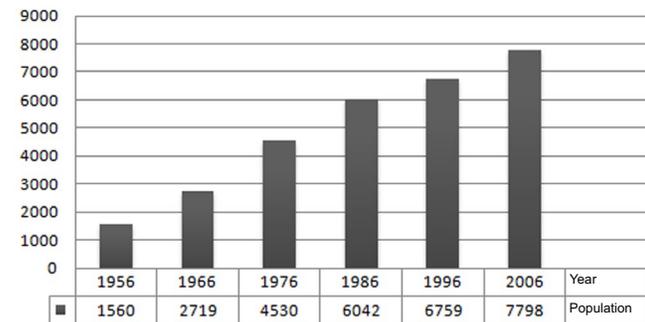


FIGURE 36: The Proliferation of Tehran's city limits from 1972 to 1999

Population of Tehran 1956-2006



Today of Tehran

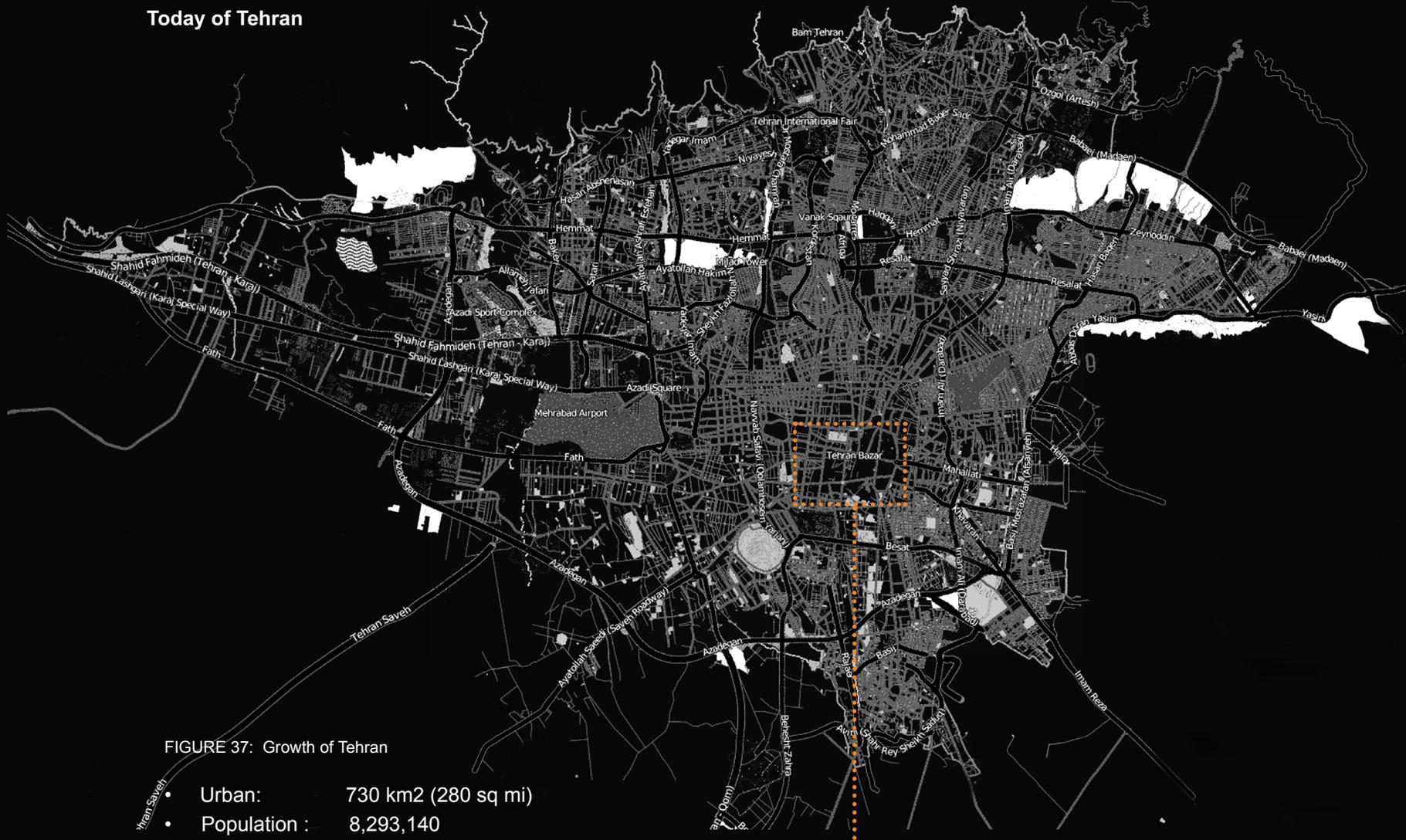


FIGURE 37: Growth of Tehran

- Urban: 730 km² (280 sq mi)
- Population: 8,293,140

Tehran in the Safavid dynasty
(1501–1736)



A Historical Urban Environment: Chaleh Meydan

A narrow network of streets and alleys limits the access points to the *Qibla Hammam* in the neighborhood. These streets play host to a range of commercial activities that are traditionally confined to bazaars, often arranged by trade, with stalls opening directly onto the street and covered by vaults or domes.

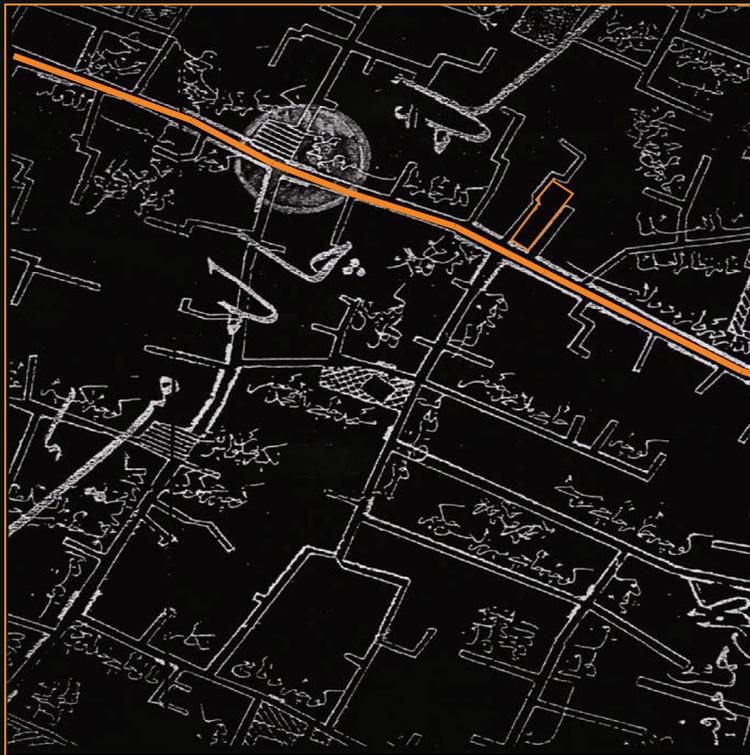


FIGURE 38: Tehran in 1880



FIGURE 39: Tehran in 2014

[2.3] The Objective of Heritage Conservation

FIGURE 40:Khosro Agha Hammam was demolished in the mid-1990



In Iran, restaurants and teahouses are some of the most common uses of old hammams.

The historical and cultural contexts of cities are valuable phenomena of culture, which form an indigenous knowledge of architecture and an urban history that is part of the social identity of every nation. Iranshahr notes that the conservation and protection of the oldest part of each town and city, areas which typically preserve their cultural and social spirit, is one of the best ways to express the national and historical identity of a country.⁵⁸ If the *Qibla Hammam* is not restored and correctly preserved, it will incur serious damages and may be lost forever.

The physical restoration of the *Qibla Hammam* not only raises awareness of the intrinsic value of this historical urban heritage, but also provides commercial viability to the building. As a matter of fact, by revitalizing the building, it could become a tourist attraction and a functional facility in the most populated core of Tehran. The structure is reminiscent of the elegance and creative spirit of an unknown Iranian architect, who constructed this building to accommodate the traditions, culture and way of life of the nearby community. The restoration of the *Qibla Hammam* thus aims to promote urban regeneration, while also controlling development in the historical city center and preserving the surviving urban fabric. Despite the efforts made toward restoring historical buildings, several programs, such as the construction of restaurants and tea houses, have attracted investments in

FIGURE 41: Sattari hammam Office in Sar-bineh.
Source: Authors, January 2012.



FIGURE 42: Jolfa Hammam converted into restaurant



historical urban structures by promoting their reuse, alternation or redesign for purposes other than their original functions. This has resulted in the restoration of a number of historical buildings, such as the *Jolfa Hammam*, which was converted into a restaurant. Others hammams were adapted for reuse as offices, restaurants, tea houses, coffee shops and even storage, in order to meet contemporary societal needs.⁵⁹ For instance, the *Sattari Hammam* is currently functioning as an office for a computer and Internet service company. By changing the structure and layout of these heritage buildings and adapting them for different uses, the original structures lose their functionality and identity.⁶⁰

It is now commonplace in Iran to re-use historical buildings for modern purposes, and the users of these spaces enjoy the altered environments. UNESCO, The United Nations Educational, Scientific and Cultural Organization, divides the definition of heritage into two parts; the first is tangible heritage, which is the physical value of monuments, buildings and sites. The second is intangible heritage, which does not have a physical value but consists of cultural spaces and names.⁶¹ Within this framework, the focus of the *Qibla Hammam* restoration will be on both its tangible and intangible heritage, so as to retain its cultural significance, while ensuring that it is kept safe from destruction or damage.



FIGURE 43: Current Condition of Site proposal ,Removing unsafe buildings and Replacing the *Qibla Hammam* Extension

Site Porposal: Removing Unsafe and Negetive Buildings and Extend the *Qibla Hammam* by New Porposal site

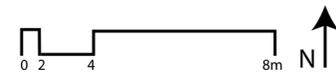
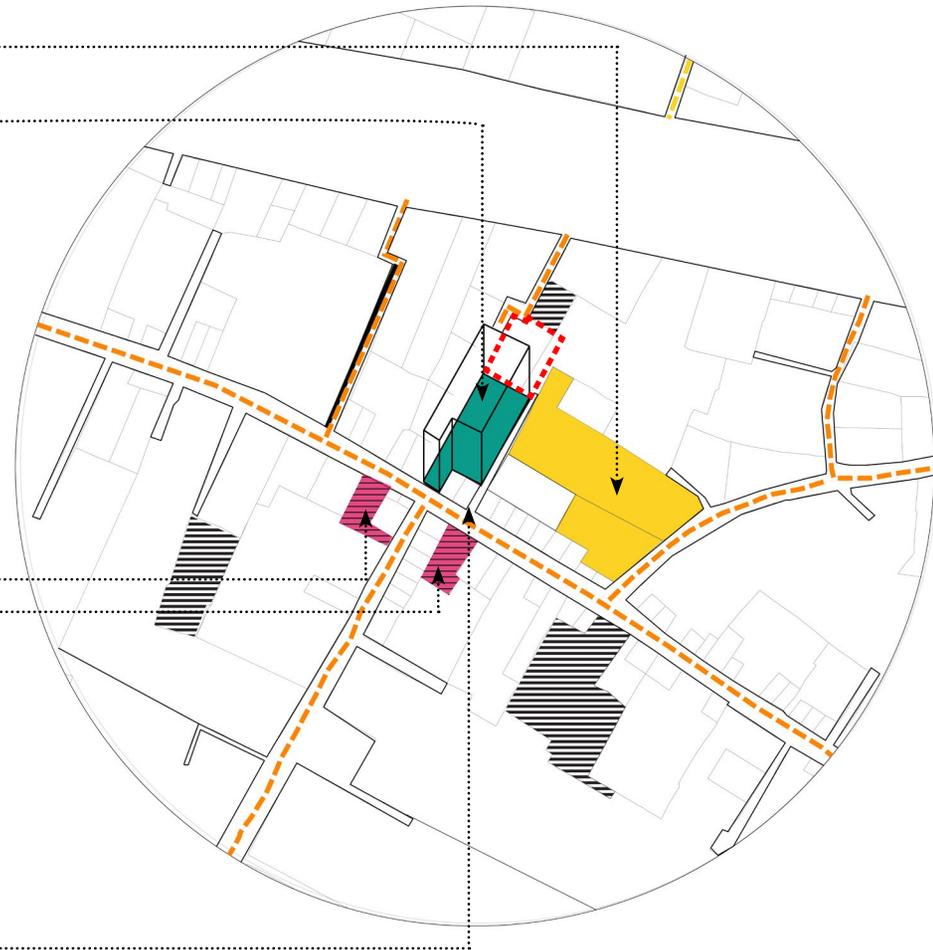
- The Proposal site for the *Qibla Hammam* extension
- The *Qibla Hammam*
- Removed Women's section of the *Qibla Hammam*
- Main Pedestrians Access to the *Qibla Hammam*



FIGURE 44/45: The Religious Cultural Hub:
 Imam Hadi Hussainia
 Islamic School Hussainia



FIGURE 46/47: The *Qibla Hammam* Only
 Accessible by Narrow Old City Alleys



[2.4] Analysis of the The Qibla Hammam building

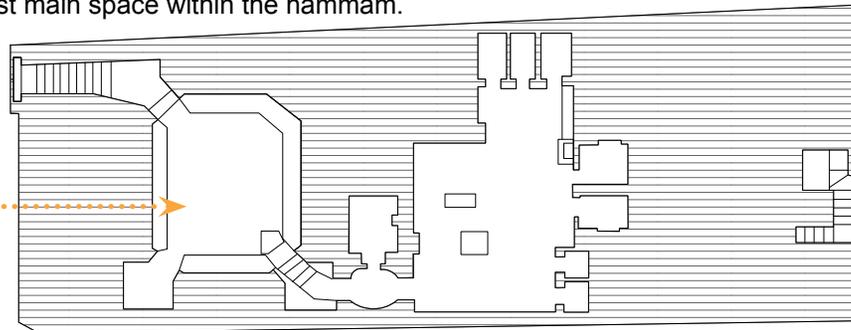
The *Qibla Hammam* is divided into two main spaces, namely the *Bineh* and *Garmkhaneh*. The *Garmabeh* (*garm*, “warm”) + (*âb*, “water”) is heated by circulating hot air and water throughout the building.⁶² The *Vorodi* (the entrance) of the hammam is comprised of a portico, an old structure laid down underneath the new layers and the entrance stairway, with eleven steps that connect it to the corridor. The corridor leads to the *Sar-bineh*, which is the first main space within the hammam.



FIGURE 48: The *Vorodi*



FIGURE 49: The *Sar-bineh*



The *Sar-bineh*, or changing room, is where undressing, dressing, resting, socializing, eating and drinking all take place.⁶³ It was designed as a large polyhedral room in the form of an octagon, with a high dome and vaulted ceilings, although these gradually deteriorated and were replaced by a flat roof. The surface of the entrance wall is now covered by enameled tiles, which hide the old wall behind it. The *Bineh* was surrounded by a decorated platform with embedded holes for shoes, which is now replaced by wooden lockers.⁶⁴

FIGURE 50: The Sar-bineh



FIGURE 51: The Mian-dar



FIGURE 52: The Garmkhaneh



The *Mian-dar* (a connecting corridor) is another narrow corridor that has four steps leading to the second main space of the hammam. This area separates the cold changing room from the hot bathing space to prevent an exchange of heat between these spaces, while also avoiding direct views into the bathing space.⁶⁵

The *Garmkhaneh* (hot or steam room) is a square room in which the massaging and washing takes place.⁶⁶ It typically has one or more *Khazinehs* and is covered by a large cupola. The cupola of the *Garmkhaneh* is equipped with *gol-jams* that use clear glass to let in natural light, while also providing adequate heating to the space. Iranians have used many different arches throughout the ages, although the most common type of arch is the *Panjohaft* arch; the vault of the *Qibla Hammam* is based on slow *Panjohaft* arches.⁶⁷ The *Panjohaft* vault in the *Qibla Hammam* is a further development of a simple barrel vault, with the perpendicular crossing of two arches spanning a square room, creating a cross-ribbed ceiling. The four bays are created by the two crossed arches. In ancient Iranian architecture, vaults are essentially a structural element, used in order to support a dome on a square base, while simultaneously creating an architectural space. This is a simple and pure technique, as the structure itself seems like a decorative element, while simultaneously bearing the weight of the structure and shaping the entire architectural design.⁶⁸

FIGURE 53: Current Condition of the Qibla Hammam Tun



The *Tun* (a furnace that heats the water directly as well as it heats the hammam's floors indirectly) is also preserved and is located on the northeastern part of the roof. The only change to the tun is the type of fuel used for heating the water. Natural gas is now used in the heating process, in lieu of firewood and coal.⁶⁹

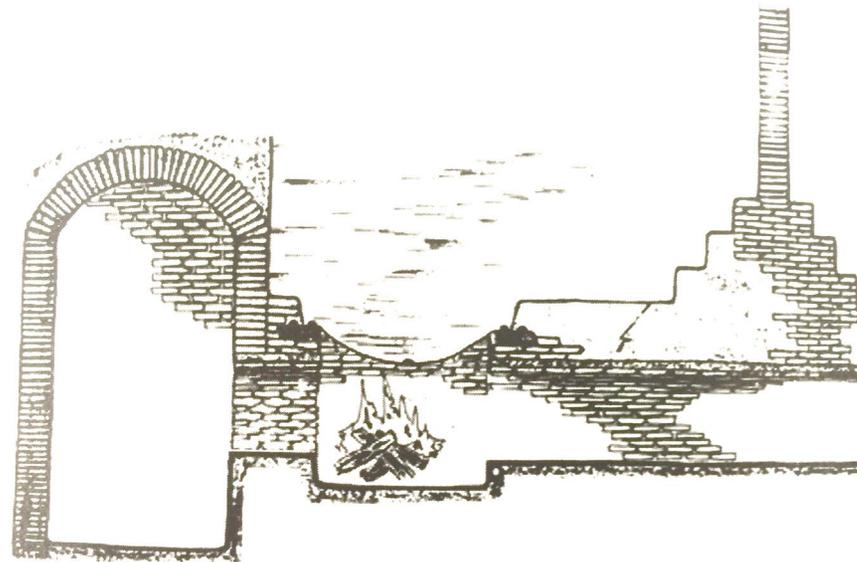


FIGURE 54: Design of a District Heating System for the Hammam's Water , by Dr Fakhar Tehrani. The bathhouse itself is below ground level in order to retain heat in winter or cold in summer. Traditionally there was a large water-filled basin (*ḳazīna*) resting on a large metal-topped stove (*tūn*) under which a fire slowly burned. (In the last few decades, due to official sanction against their use in public baths, *ḳazīnas* have been replaced by showers(*dūš*))



1: The Entrance



2: The Sar-bineh



3: The Prayer room



4: The Connecting Corridor

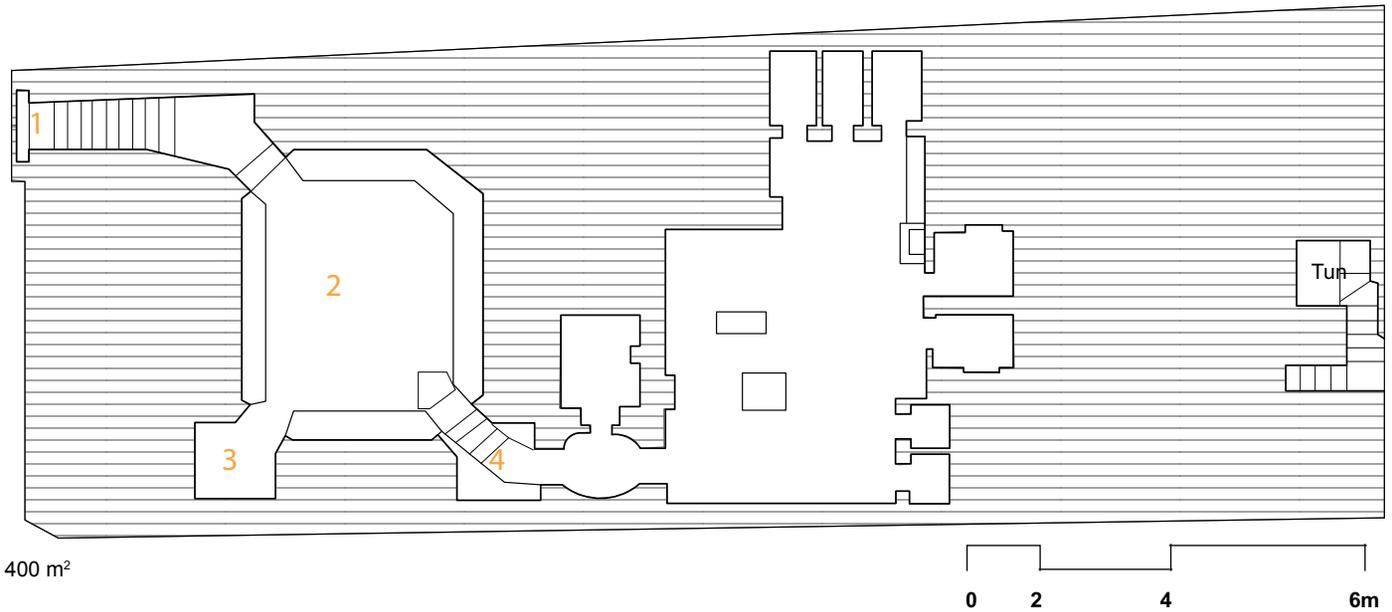


FIGURE 56:Recent plan- 400 m²



5: The Crridor



5: The washroom



7: The steam room



8: The shower room

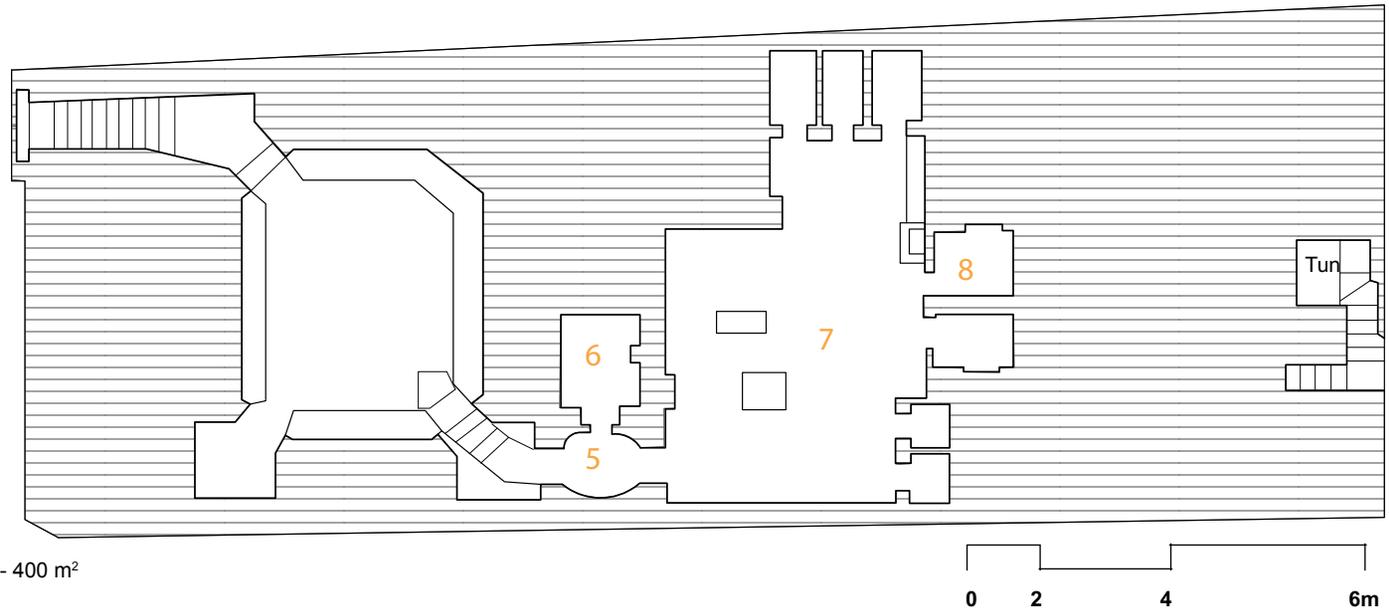


FIGURE 56:Recent plan- 400 m²

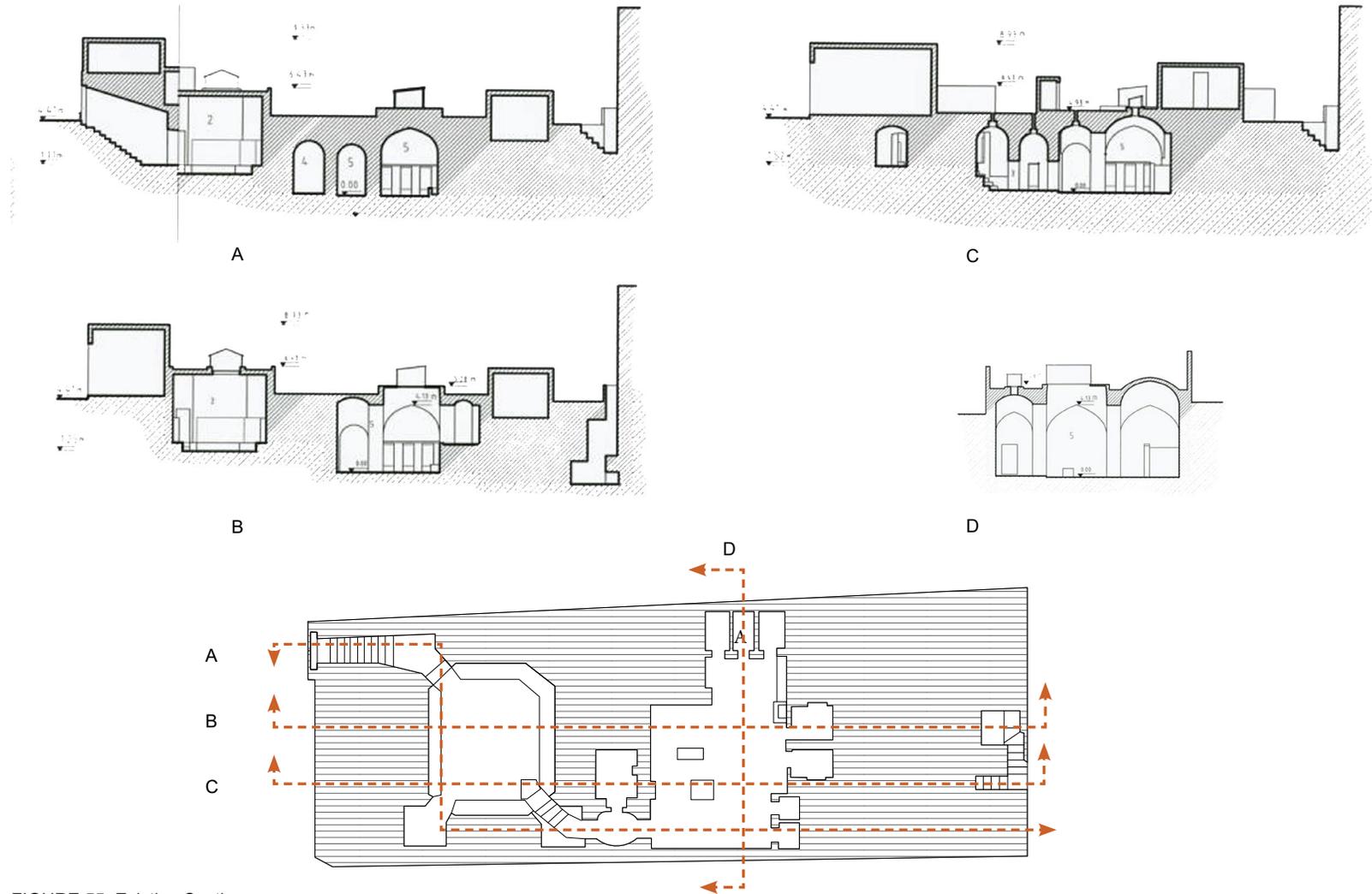


FIGURE 55: Existing Sections



The Qibla Hammam Roof is only Accessible by Narrow Alley



The Roof Accessible Door



The Qibla Hammam Roof is as same Level as Grand Level



The Qibla Hammam Cupola



Two Shops are Adjacent of The Qibla Hammam

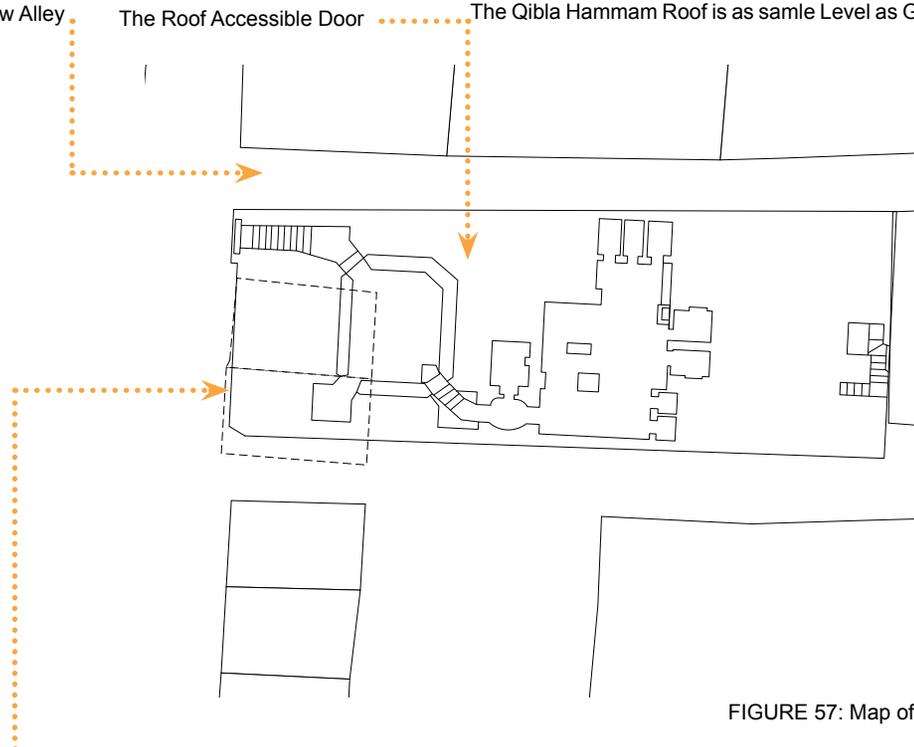


FIGURE 57: Map of Existing Condition

According to the existing drawings and plans provided by Iranshahr, the *Qibla Hammam's Garmkhaneh* once consisted of several other bathing chambers and spaces, which have since been removed.⁷⁰ One of the spaces that was removed was the *Khazineh*; a small washing room that adjoined the *Garmkhaneh* and was used for ablution. It was originally located in front of the entrance to the *Garmkhaneh*.⁷¹ The *Khazineh Howzes* contained hot, lukewarm and cold water. Another space that adjoined the *Garmkhaneh*, but no longer exists, was the *Chal-e-howz*.⁷² It was a large, and relatively deep, pool of cold water in which guests could swim and refresh themselves.

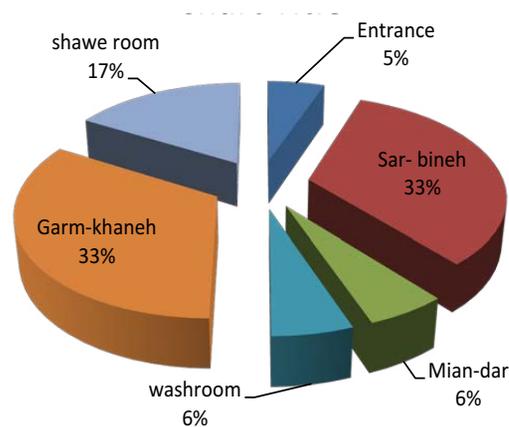


Diagram 2: According to the present plan, some changes to the Hammam Footprint reveals its attributes to the Contemporary lifestyle demands. Forexample, The *Khazineh* , *Chal-e-howz* and Custodial Room were either converted or removed to the Showerrooms.

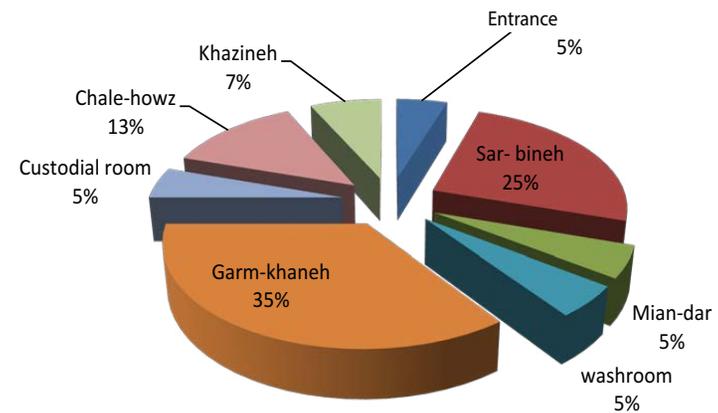


Diagram 3: According to the existing drawings and plans , the original footprint of the *Garmkhaneh* which consisted of The *Khazineh* ,*Chal-e-howz* and Custodial Room has been reduced by approximately forty percent.

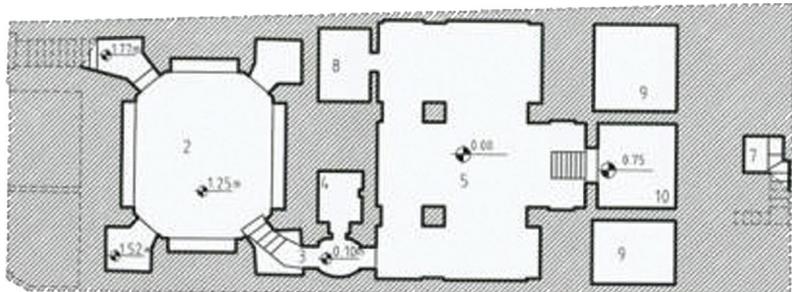


FIGURE 56: Previous plan (Re- Constructed)

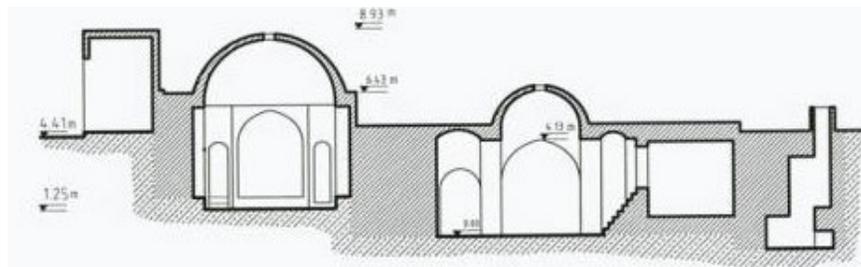


FIGURE 57: Previous Section (Re- Constructed)

Qibla hamam consisted of two distinct sections for man and women in the past. The women section which was situated north of men section was demolished and a residential unit building was constructed in its place.

When comparing the previous plan (re- constructed) and the present hammam, we note several significant changes to the building, much of which is attributed to the demands of a modern lifestyle. For example, the *Khazineh* and *Chal-e-howz* lost their functionality and were replaced by shower rooms. The use of shower rooms in a hammam was first introduced in Iranian architecture by Mamtahan al-Dowleh, the first official architect in Iran during rule of Nasser al-Din Shah *Qajar* (1848–1896).⁷³

According to some researches done by Iranshahr, there have been some changes to the structure and naming of the *Qibla hammam* in the past that could be listed as following:

1. The name of the hammam was changed to *Qibla hammam* from *Khanoom hammam*
2. The women section, located north of men section, was demolished and a residential building was built on its place
3. The entrance was demolished and the portico of men's section has been removed from the building's original decoration
4. Stone slates have been installed over brick stairs
5. The original tilings have been removed and replaced with new tiles
6. The *Khazinehs* and center *Howz* (pool) have been back-filled
7. The traditional brick floor has been replaced with carpet flooring
8. The central cupola has been demolished.⁷⁴

Qibla Hamam is owned and operated by *Sazmaneh Oghaf va Omoure Khierieh*, The Charity and Donation Organization, a semi-governmental, nonprofit organization. The original ownership, dated back to 1885 AD and the only available document, was prepared and approved by well-known *Emams* and heads of the families of the region at the time. There is no mentioning of previous owner or year of construction of the hammam on the ownership but only mentions how the revenue of the hammam should be spent. The revenue from operating the hammam is equally distributed as follows:

- a. Between low income families of the city
- b. Between low income family of the area
- c. For religious ceremonies and rituals
- d. For building new amenities needed in the region
- e. To operate the hammam⁷⁵

According to Pirnia (a prominent architectural historian in Iran), the architectural features of a hammam in the *Safavid* dynasty can be divided into three:⁷⁶

1. Simplicity of design, building geometry, the use of forms and broken lines.
2. Gradually reducing the building footprint from retrogression.
3. Benefit from frames and identical measures in the building.

The *Qibla Hammam's* architectural features correlate with the three theories of Pirnia. An examination of the existing plans reveals that the *Qibla Hammam's* design is simple and the building consists of quadrilateral and octagonal spaces.

The main layout of the structure consists of one square and one octagonal chamber, and the frames enclosing the chambers each hold one cupola . By comparing plans of the ancient building with

those of the recently re-developed hammam, we note that its footprint was gradually reduced. For instance, the original footprint of the *Garmkhaneh* was reduced by approximately forty percent. Spiritual and physical aspects were two distinct factors that shaped the construction of hammams during the *Safavid* dynasty. Spiritual factors were emphasized by the importance and necessity of cleanliness in Islam, dignity of water and provisions for Islamic religious rituals.

In the *Qibla Hammam*, there is a place for worship and a pool of pure water for worshipers to conduct *wudu* (ablution) and pray. Physical factors consisted of the creation of a strong central government to establish security and stability, which resulted in the use of advanced technology in the construction of hammams. This aspect is no longer a key factor in *Qibla Hammam*, or any hammam, on account of the progressive urban development in Tehran over the past few centuries.

FIGURE 58: The *Qibla Hammam* Re-opening and Reusing by Women / Women Using of the secondary building attached entrance door



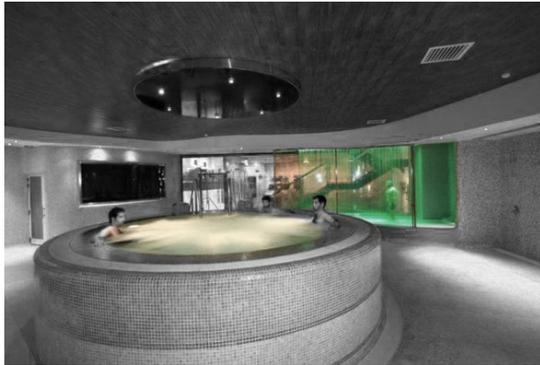
FIGURE 59: A big Changes in The *Qibla Hammam* / Men Using of the the existing *Qibla Hammam* entrance for Men



[2.5] The Restoration and Revitalization Program

The *Qibla Hammam* functions as a socio-cultural institution in its neighborhood, as well as a place where men and women can meet with their family and friends. Since there has always been a high degree of social control over public places for women in Iran, the hammam afforded them a secure place to meet. Aside from the hammam, there was a lack of safe places for women to gather and socialize outside of their homes.⁷⁷ The *Khanum Hammam* became exclusively used by men in 1938.⁷⁸ It was then renamed the *Qibla Hammam*, as the men refused to bathe in a hammam that was named after a woman. Prior to 1938, men and women would bathe in the hammam on alternate week days. Although the *Qibla Hammam* presently limits its use to men, the proposed renovation of the hammam suggests re-opening the baths to women. To keep the hammam true to its historic origins, the existing building will be preserved and a secondary building will be attached to create sufficient space to re-allow women entry to the hammam. The updated structure will allow entry to both men and women by means of two separate entrance doors from the alley. Aside from a restriction regarding female users, the *Qibla Hammam* has remained essentially unchanged in its function over the last 460 years.⁷⁹

FIGURE 60/61: Zendegi Health and Spa Complex, Younger generations have seen the growth of spas and hydrotherapy centers regarded as a forward social practice



Despite the religious nature of the district in which the *Qibla Hammam* is located, the use of the hammam is presently regarded as a backward social practice and reveals that traditional ways of life are, according to the younger generation, incompatible with modern, international and cosmopolitan behaviors.⁸⁰ The extension to the *Qibla Hammam* aims to change this negative perception and create a space that everyone in the community can use and enjoy.

The younger generation, moreover, has a different understanding of cleanliness and personal hygiene, as they regard public hammams as unhygienic.⁸¹ They are more inclined to support the growth of spas and hydrotherapy centres instead of old-fashioned hammams. Thus, the hammam, as an intergenerational social space, tends to disappear. The primary objective of the *Qibla Hammam* restoration is to stop, or at least minimize, its destruction, so it can maintain its identity by keeping its features and functionality.

The question remains, however, how we can use the prosperity of Iranian and Islamic culture and civilization, as well as the current conditions and challenges, to create a suitable model for the hammam that fits in with the modern identity of Tehran? For this thesis, four main concepts are explored in order to restore and revive the *Qibla Hammam* and meet the contemporary needs of the city, particularly through the addition of an extension to the hammam.

1. Spirituality (water and light),
2. Functionality (bathing)
3. Social forum (communication)
4. Urban identity values (historical context)

The following project portfolio illustrates the strategic process and the architectural program that responds to these four factors, while also proposing a design for the additional space.

Chapter Notes

46. Moghdsiyan, Abdol Majid (In pFarsi) "The Qibla Hammam (The Khanum Hammam)." IRANSHAHR Encyclopaedia of the Iranian Architectural Histor. 2002. Accessed August 5, 2015. <http://www.iranshahrpedia.ir/>.
47. Shohreh Golsorkhi "Pari Khan Khanum: A Masterful Safavid Princess," *Iranian Studies* 28, no. 3-4 (Summer/Fall 1995), <http://www.jstor.org/stable/4310940> reader.pdf.143.
48. Nazak Birjandifar, "Royal Women and Politics in Safavid Iran" (Master's diss., McGill University, 2005), 46.
49. Moghdsiyan, Abdol Majid (In pFarsi) "The Qibla Hammam (The Khanum Hammam)." IRANSHAHR Encyclopaedia of the Iranian Architectural Histor. 2002. Accessed August 5, 2015. <http://www.iranshahrpedia.ir/>.
50. Ibid.
51. Consulting Engineers Architecture- Planners, The detailed plan of Tehran12 district (2005), Tehran urban planning & research center, Tehran,2005 <http://region12.tehran.ir/Default.aspx?tabid=179>
52. "Tehran, History." Tehran Municipality. <http://en.tehran.ir/Default.aspx?tabid=96>.
53. Consulting Engineers Architecture- Planners, The detailed plan of Tehran12 district (2005), Tehran urban planning & research center, Tehran,2005 <http://region12.tehran.ir/Default.aspx?tabid=179>
54. "Rey, Iran." Wikipedia, the Free Encyclopedia. https://en.wikipedia.org/wiki/Rey,_Iran
55. "Tehran, History." Tehran Municipality. <http://en.tehran.ir/Default.aspx?tabid=96>.
56. Ibid.
57. Ibid.
58. Moghdsiyan, Abdol Majid (In pFarsi) "The Qibla Hammam (The Khanum Hammam)." IRANSHAHR Encyclopaedia of the Iranian Architectural Histor. 2002. Accessed August 5, 2015. <http://www.iranshahrpedia.ir/>.
59. J. W. Sarmiento and Z. Kazemi, "Hammams and the contemporary city: the case of Isfahan, Iran," *International Journal of Heritage Studies* 2, no. 3 (2012): 147.
60. Ibid.142.
61. Dumreicher, Heidi, Richard S. Levine, and Magda Sibley-Behloul. "Hammam Rehabilitation Reader." 2012. Accessed August 5, 2015. <http://mimar-architects.com/reader.pdf.35-47>.
62. Mohammad Karim Pirnia (in Farsi) " Memari Irani" (Iranian architecture).5th ed. (Tehran: Sourosh Danesh, 2008) 380.
63. Moghdsiyan, Abdol Majid (In pFarsi) "The Qibla Hammam (The Khanum Hammam)." IRANSHAHR Encyclopaedia of the Iranian Architectural Histor. 2002. Accessed August 5, 2015. <http://www.iranshahrpedia.ir/>.
64. Ibid.
65. Ibid.
66. Ibid.
67. Ibid.

Chapter Notes

68. Mashayekh, Hourieh, and Hayedeh Mashayekh. "Hamмам: Bath House, an Ancient Heritage in Iran." The Bridges Archive: 2008 Paper. Accessed August 5, 2015. <http://archive.bridgesmathart.org/2008/bridges2008-469>
69. Moghdsiyan, Abdol Majid (In Farsi) "The Qibla Hamмам (The Khanum Hamмам)." IRANSHAHR Encyclopaedia of the Iranian Architectural Histor. 2002. Accessed August 5, 2015. <http://www.iranshahrpedia.ir/>.
70. Ibid.
71. Ibid
72. Ibid
73. Ali Reza Lofti and Hosein Masjedi (in Farsi), *Garmabeh's Glossary: With the Approach to Isfahan Baths* (Tehran: Aban Book, 2013), 29.
74. Moghdsiyan, Abdol Majid (In Farsi) "The Qibla Hamмам (The Khanum Hamмам)." IRANSHAHR Encyclopaedia of the Iranian Architectural Histor. 2002. Accessed August 5, 2015. <http://www.iranshahrpedia.ir/>.
75. Ibid
76. Afrogh Mohammad (in Persian), "vijegihaye Hamмам Irani dr ahd safavi" (The Persian Hamмам Features in The Safavid Dynasty) *Ketab-e- Mah-e- Honar* 130 (2009): 101-94.
77. Dumreicher, Heidi, Richard S. Levine, and Magda Sibley-Behloul. "Hamмам Rehabilitation Reader." 2012. Accessed August 5, 2015. <http://mimar-architects.com/reader.pdf>.171.
78. Moghdsiyan, Abdol Majid (In pFarsi) "The Qibla Hamмам (The Khanum Hamмам)." IRANSHAHR Encyclopaedia of the Iranian Architectural Histor. 2002. Accessed August 5, 2015. <http://www.iranshahrpedia.ir/>.
79. Ibid
80. J. W. Sarmiento and Z. Kazemi, "Hammams and the contemporary city: the case of Isfahan, Iran," *International Journal of Heritage Studies* 2, no. 3 (2012): 143-44.
81. Ibid.143-44.

PART 3: Project Design (Portfolio)



[3.1] The Main Purpose of this Research is the Following:

For this research, it is important to note that the hammam is considered an urban heritage project in modern Iran; therefore, its conservation and maintenance is crucial. Secondly, this thesis aims to preserve the existing hammam; however, additional spaces and programs are incorporated to further accommodate the needs of the locals, thereby creating a contemporary holistic hammam. Moreover, the project responds to the current conditions of the site, as it aims to revitalize the existing condition of the hammam.

Introduction of revitalize existing Hammam and its new space.

[3.1] Design Objective

We believe that the restoration and revitalization of the *Qibla Hammam* will help increase the value of the existing structure, while also attract tourists and scholars who might be interested in exploring the history and architecture the site; thus, creating economic benefits for city and its inhabitants. In order to protect the *Qibla Hammam*, we need to adopt new programs for conserving historic designs, apply careful repairs with strict regulations and rules and carry out sensitive restorations that ensure maximum retention.

Furthermore, the Cultural Heritage Organization of Tehran stipulates that unprotected heritage structures, such the *Qibla Hammam*, require sensitive planning that aligns with the essential routine development agenda of a heritage zone. The decision to completely replace a section of the existing hammam is based on the city's evaluation of the building, as well as its surrounding area, as a negative urban space; inviting and attracting people who wanted to conduct illegal activities.

[3.2] Site Analysis



FIGURE 45: Region Facilities

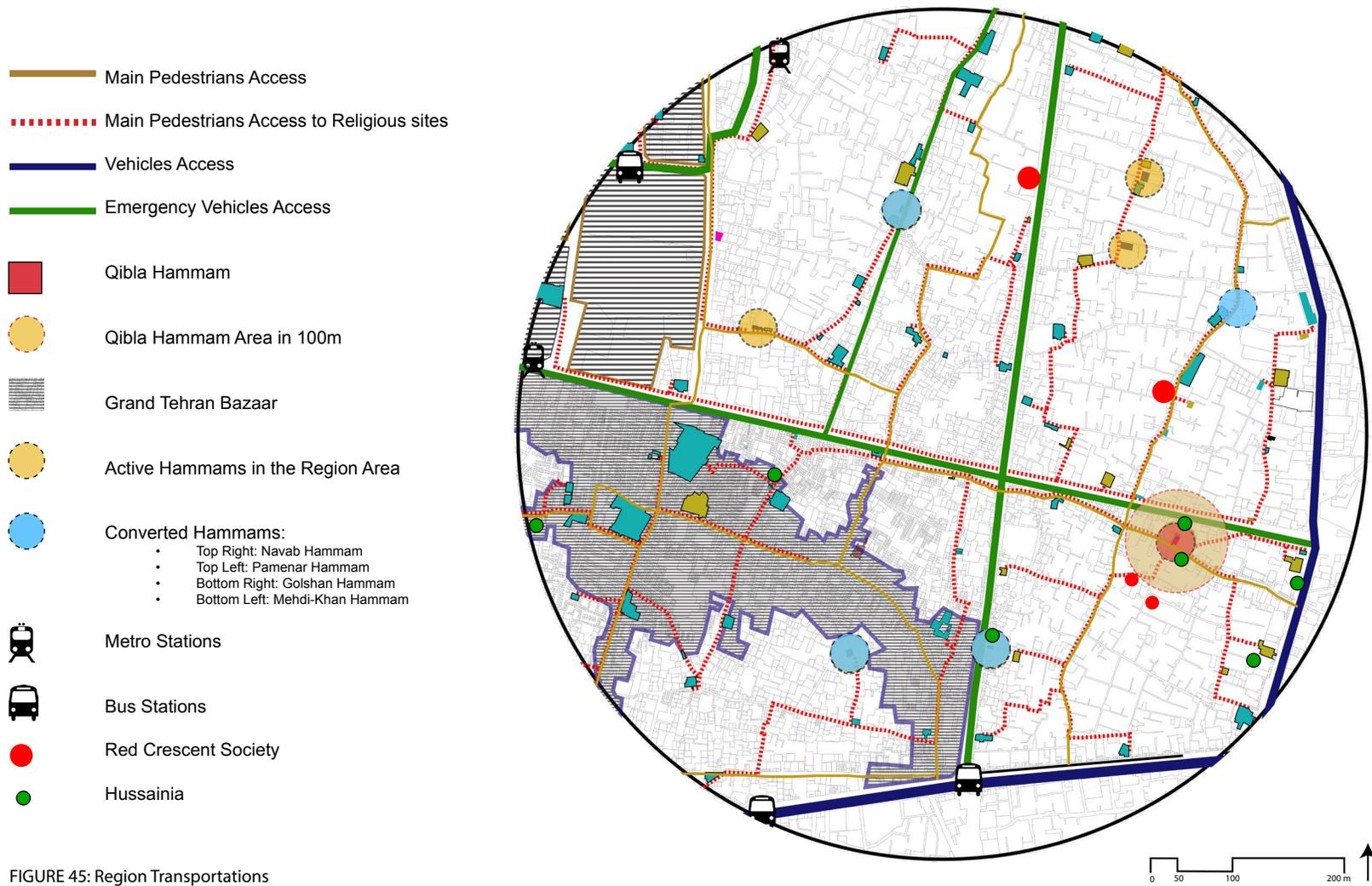


FIGURE 45: Region Transportations

[3.3] Design Strategy

Given the current state of abandonment of the *Qibla Hammam*, this project hopes to devise a plan that will result in the re-use of the traditional hammam by public. The restoration of the *Qibla Hammam* will bring positive changes that can extend deeply into the community. It will offer a place for social gathering and inspire unity between people from different communities. Thus, the approach for this project is to illustrate the need for a physical rehabilitation of the present structure and whether the restoration can have a positive effect on the region.

The design proposes to connect the existing hammam to a contemporary spa. There will be a transitional space between the old hammam and the spa, thus creating a threshold between the existing building, with its traditional architecture, and the contemporary space. This will be achieved by the use of stairs to separate the distinct spaces. The extension to the *Qibla Hammam* will provide a new identity to the existing building, one which clearly articulates the old from the new.

This extension will offer an innovative contemporary spa that reflects and complements the existing hammam. The project serves as a primary proposal for the revitalization and rehabilitation phases of the *Chaleh Meydan's* district, and will act as a community space that meets the practical needs of its residents, as well as a place for purification of the body and soul. The extension space will replace the negative buildings in role of the spa into the historical *Qibla Hammam*, and also act as beneficial facilities in the region.

Recent Photographs of The Qibla Hammam Entrance Door

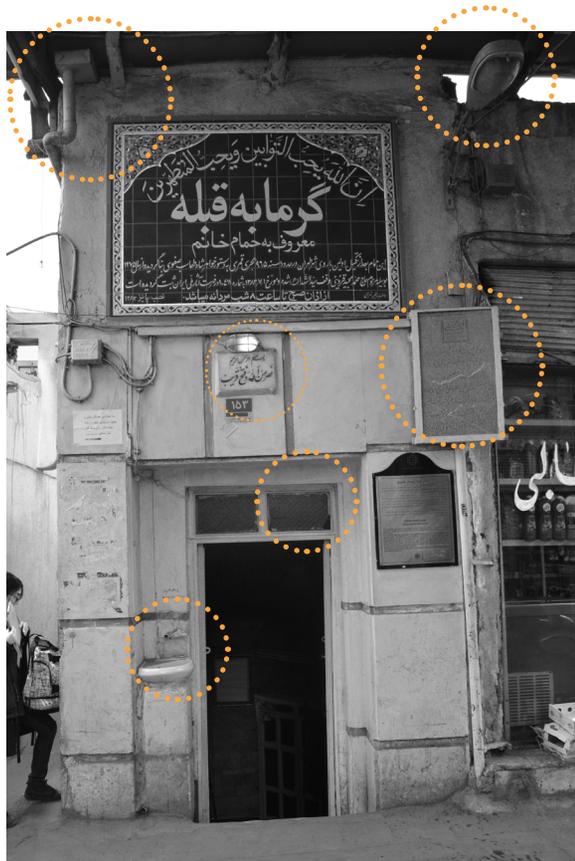


FIGURE 44: First Strategy for Restoration of The Qibla Hammam Entrance Door



Replace the glass



Remove Signage



Remove metal overhang



Replace a new and appropriate marble basin



Remove lighting

Condition:

The *Qibla Hammam* is structurally stable, according to our observations and analysis; the stone is in good condition, however, the basin and the surrounding stones are deteriorating from impact, water damage and other environmental effects. It has also been vandalized, as many flyers were glued to the stone surface and have been improperly removed.

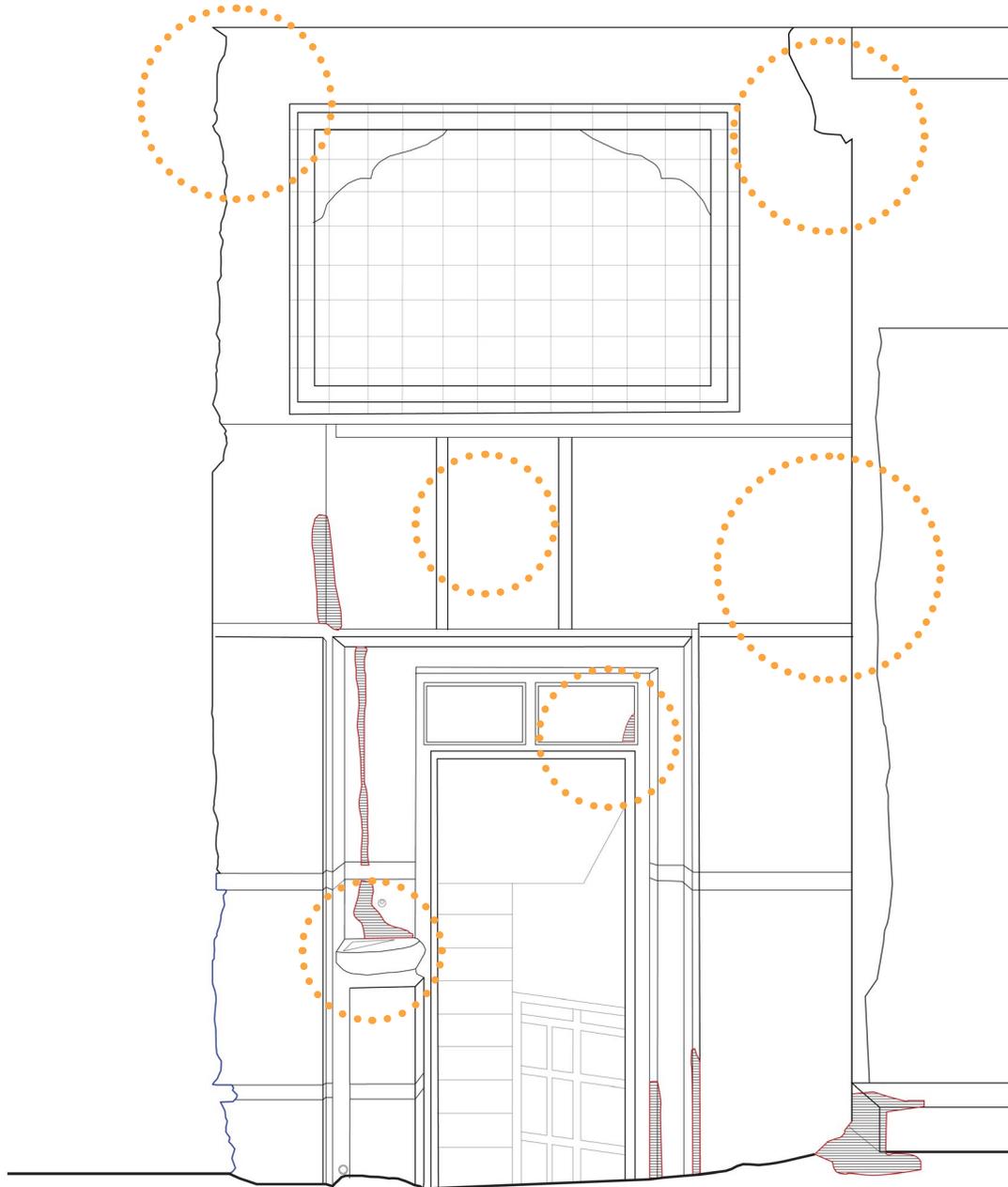
Hardware and fixtures were also removed from the structure. There is also a vault that was attached to top of the *Qibla Hammam*. The corridor stairs leading from the entrance door to the changing room are now completely covered by heavy stone slates. The stones used in the original stairs are of a high quality and they should be a primary concern of any restoration or preservation effort.

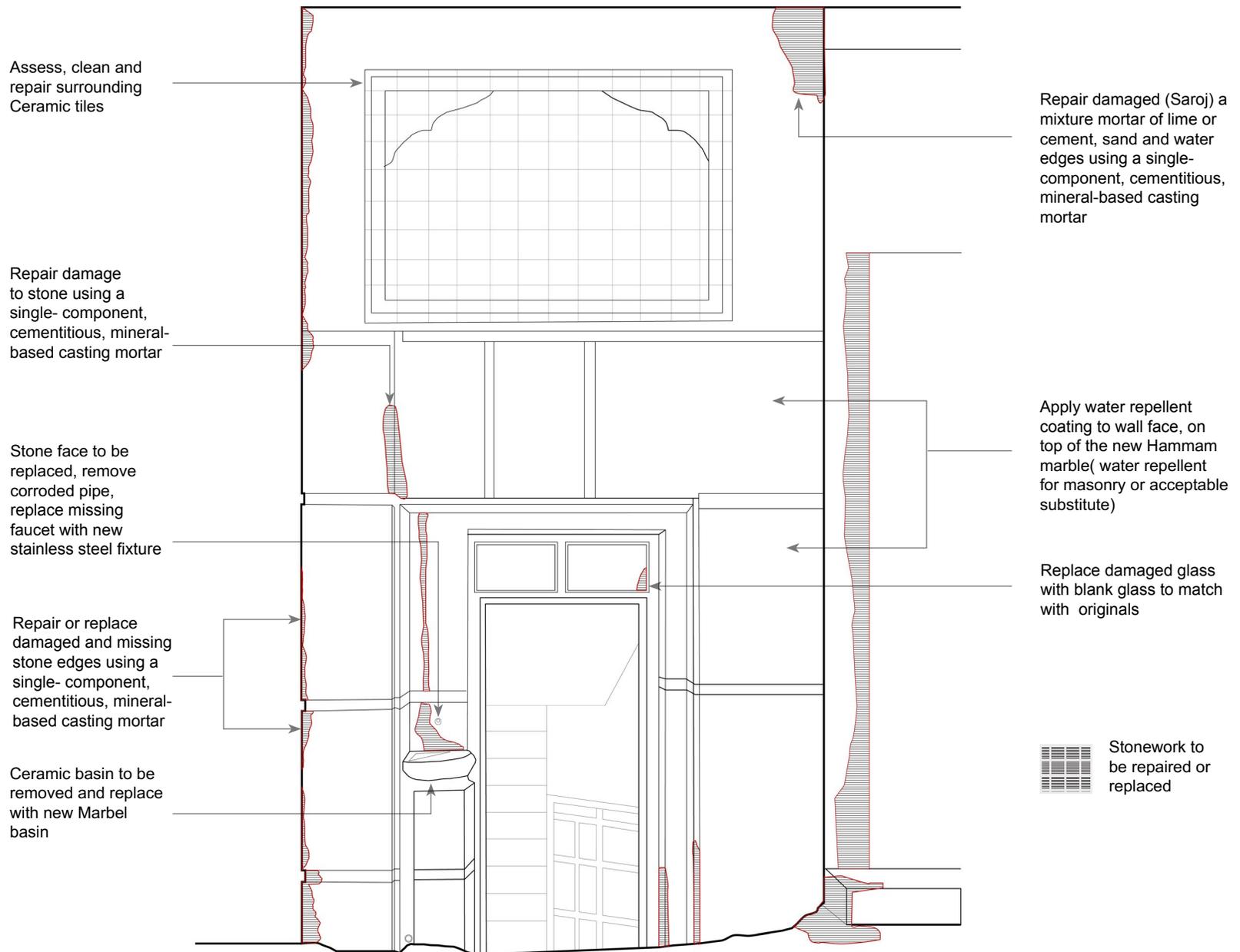
Proposal:

The proposed restoration activities are based on recent conditions at the site, although the outdated photographic records and in situ observations by others may not illustrate all of the repairs that are needed. Additional observation and analysis of the *Qibla Hammam* is needed to more accurately determine its structural condition and the conditions of the stone. The effects of minor cracks are easily seen on the surface and the entire facade is in urgent need of repair or replacement. In addition, the removal of the present sign-age, grate, lighting, panel and metal roof would also benefit the *Qibla Hammam*. The removal of the fluorescent lights would require the hammam to be fitted with a new exterior lighting scheme, particularly for security reasons. The ceramic basin and the stone walls also likely need to be replaced.

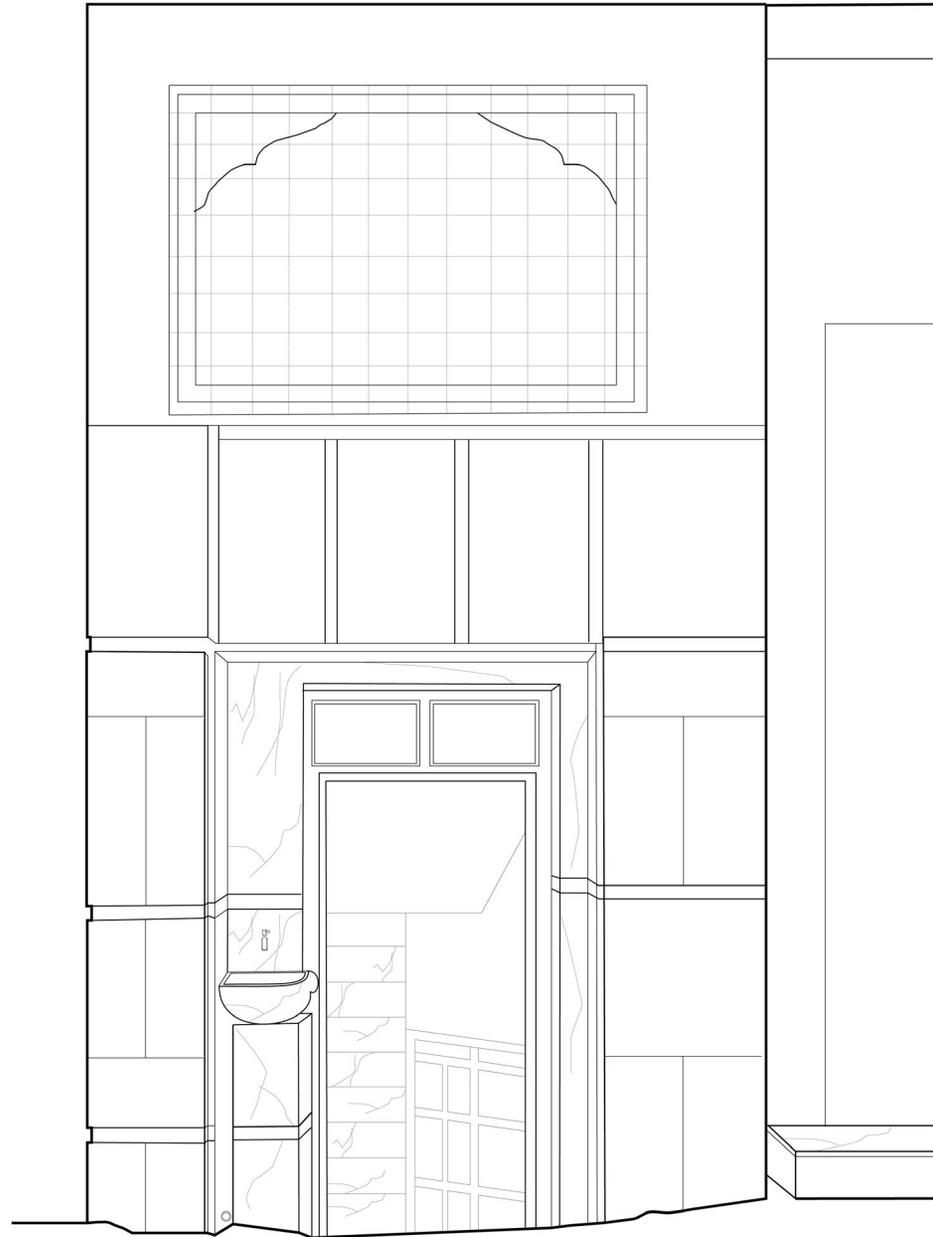
Additionally, we need a plan to encourage the community to use and care for the *Qibla Hammam*. Moreover, there is always the question of whether restoring the *Qibla Hammam* to its original condition, or adopting the current strategy to add contemporary materials and fixtures would be more appropriate for its continued use. For further information See attached drawings.

Existing Condition





Completed Restoration



Recent Photographs of The Qibla Hammam Changing Room



Replace with handcrat



Remove platform marble

Condition:

Despite minor repairs to the *Qibla Hammam* since its construction, we find little evidence for its conservation over time. The building stands largely in its original form, although there are some updated materials, including interior lighting and lockers. Photographs of the changing room suggest that it is structurally stable, and both the ceramic tiles on the wall and stone slates in the floor appear to be in good condition. The ceramic used on the walls is made of cheap and low grade materials and bare an ordinary commercial design. Recent photographs show that the current state of the change room is unhygienic and there is an urgent need for repairs and cleaning. There is a decorated platform around the room that was originally covered with grayish marble, although recent photos show that its original color has faded and it now appears to have a yellowish tone.

Proposal:

The restoration plan for the *Qibla Hammam* is based on these new conditions. The stone slates on the floor are dirty and may need to be replaced. We will attempt to replicate the original floor by using high quality factory stone products that have an appropriate value. The present materials and fixtures need to be removed and replaced with high quality and handmade ceramics. Considering the present condition of the bath and its unhygienic nature, it needs to be sanitized. In addition to the walls and floor, the old wooden lockers should be removed and replaced with a new set of custom-made wood lockers. The proposed lockers will be made of teak timber, a tropical hardwood, that it is highly resistant to decay.

Moreover, it is exclusively valued for its durability and water resistance, thus it would be an appropriate choice for a wooden construction within the *Qibla Hammam*. Besides, removal of the picture, lighting, and panel or any things hanging on the wall will help to increase the view and even be considered more eye-catching.

Replace existing ceramic tiles 15x15 cm with an appropriate new sets and larger sizes plus higher quality. The poropose tile is 25x25

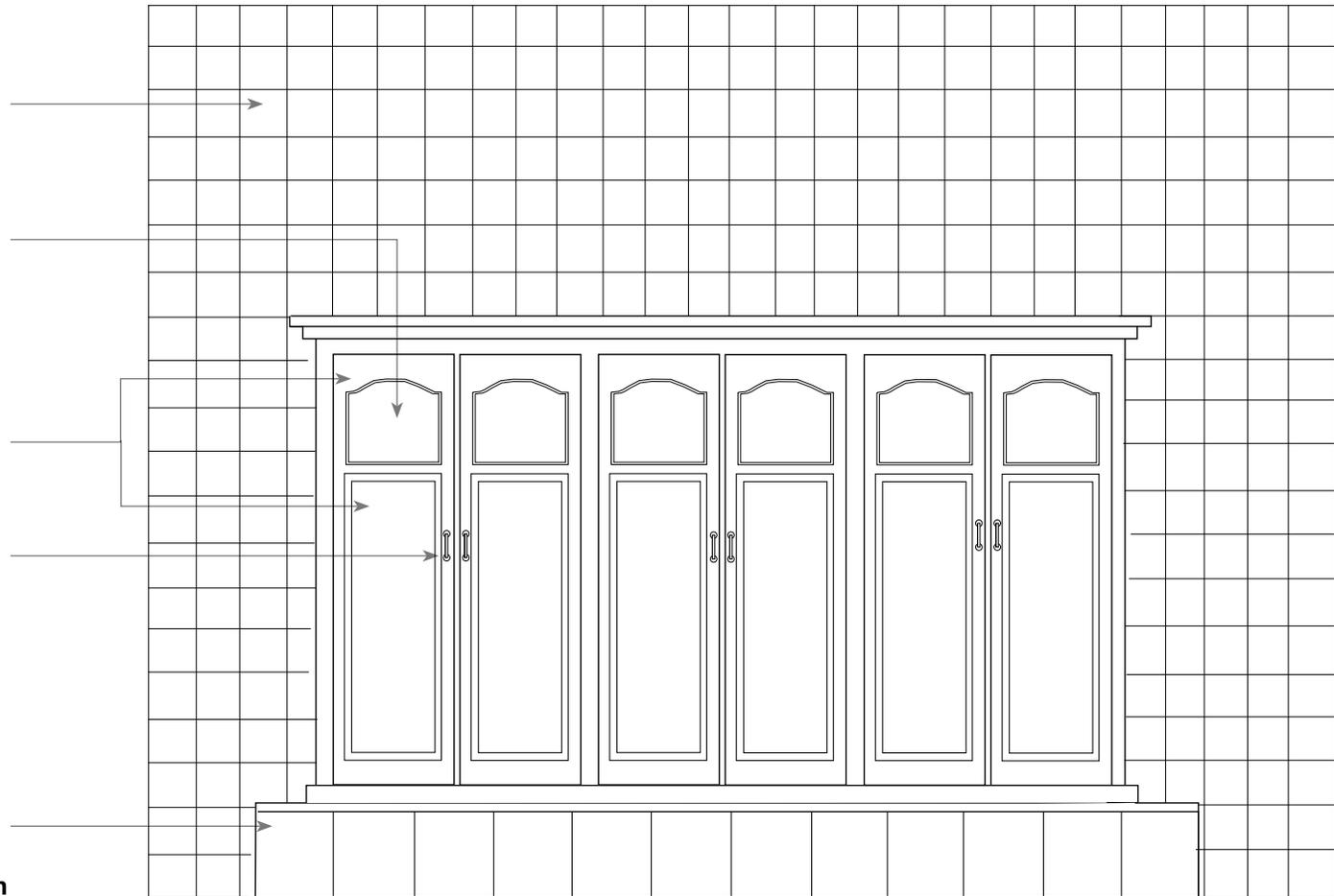
Replace mirror in upper storage cabinet facade

Existing lockers remove and replace with teak timber a tropical hardwood with same proportion and aesthetic quality. The Locker is 50x50x150cm

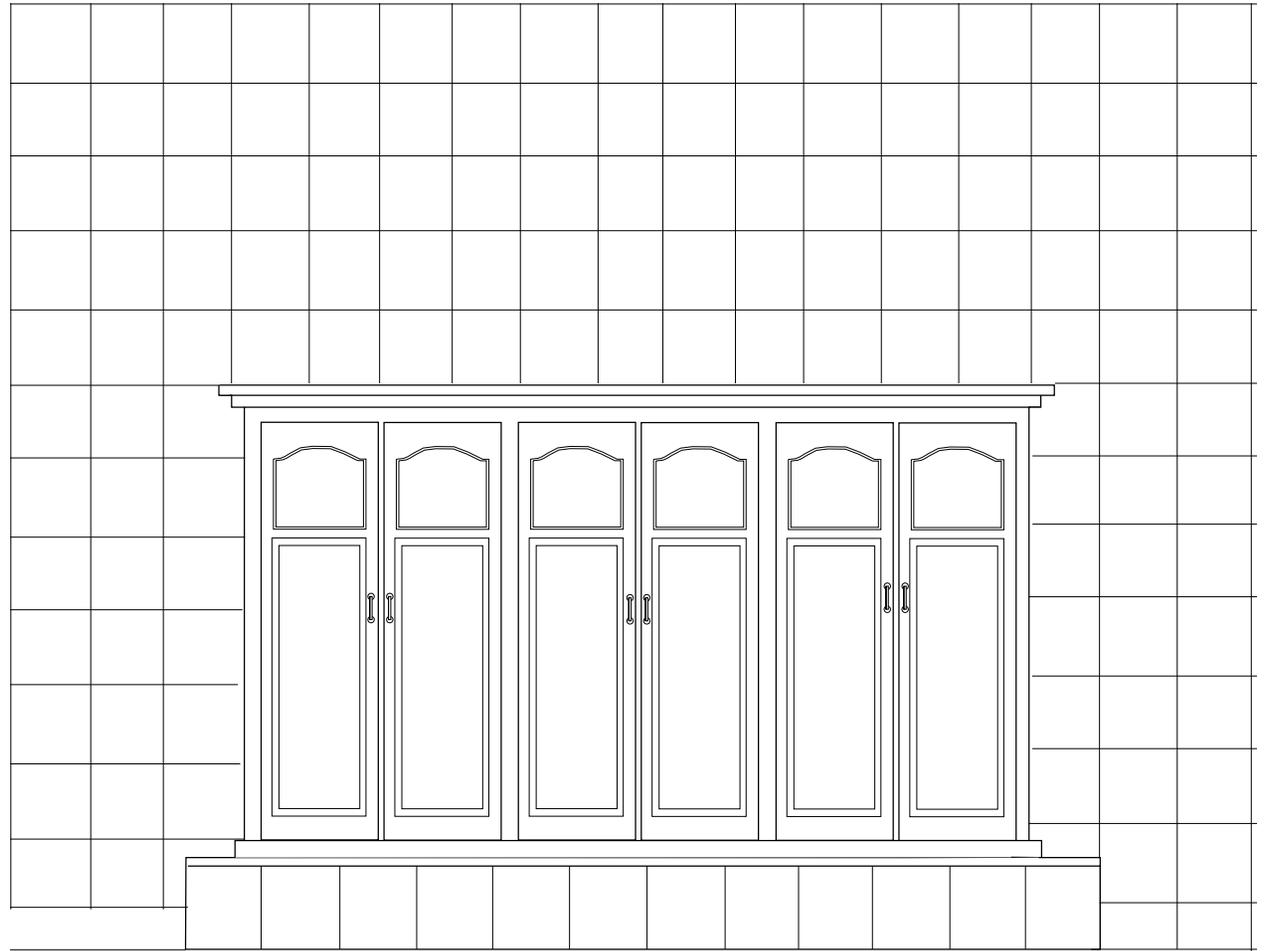
Door knob replace with Single Cylinder Satin Nickel

Replace damaged and cheap marble with a new set of white and grayish marble from *Mahestan's* quarry. These Marble sawed in 40 x 50cm

Existing Condition & Proposed Work



Completed Restoration



Recent Photographs of The Qibla Hammam Steam room



Condition:

The removal and replacement of the hammam's ceramics requires a thorough examination and analysis by skilled restoration specialists. The initial assessment has not showed any serious structural problems; in fact, the steam room is in use. In order to better preserve the steam room, however, before it falls into a state of disrepair, it is in need of a renovation. Damage to the ceramic tiles, such as cracks and discoloration, is visible. The steam room was previously repaired to remove and clean some of the cracked ceramic. Our observations show that the ceramic wall is in a poor state and stone slates in the floor are in need of repair. The marble around the pool is discolored and the pool fixtures, such as the faucet pipe, have rusted.

Proposal:

The present recommendations are based on contemporary research and photographs of the steam room. All work should be undertaken under the supervision of skilled restoration specialists, using appropriate materials and procedures that allow for the best possible preservation. The marble pool likely needs to be removed, as well as the ceramic walls and the stone slates in the floor. Both faucet pipes for the pool will be replaced with new stainless steel fixtures. A source of water surrounds the room, which constantly emits bubbles and steam through a narrow path. The effects of inappropriate materials can be seen in the steam room, but the proposed materials and fixtures, which will have a high aesthetic value, will give the space a renewed glow.

Existing ceramic tile 25x25cm replace with honey yellow onyx marble of *Mahestan* with two type of aesthetic quality. The overhead marble is 8 x 100cm and the underneath marble is in square 80x80cm

Existing ceramic tile 15x15cm replace with either ceramic and honey yellow onyx marble of *Mahestan*. The two overhead ceramic is a handcraft ceramic tile in 25 x 25cm and the underneath marble is a rectangular marble in 25x80cm. Lower wall decorate with various marble

Marble *Howz* remove and replace with an aesthetic marble quality and existing faucet replace with new stainless steel fixture

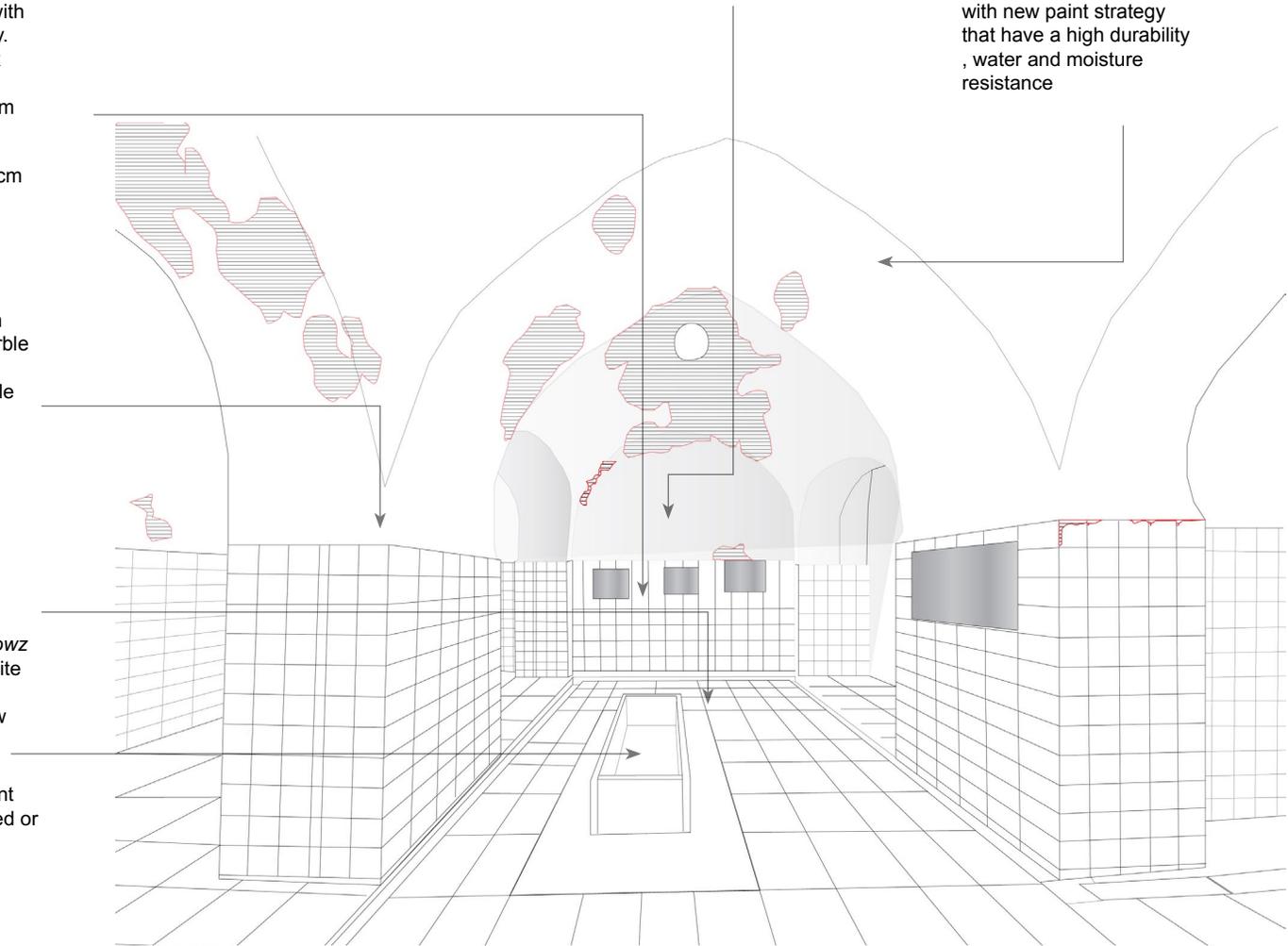
Floor marble around the *Howz* replace with decorative white and grayish marble from *Mahestan's* quarry with new stainless steel fixture

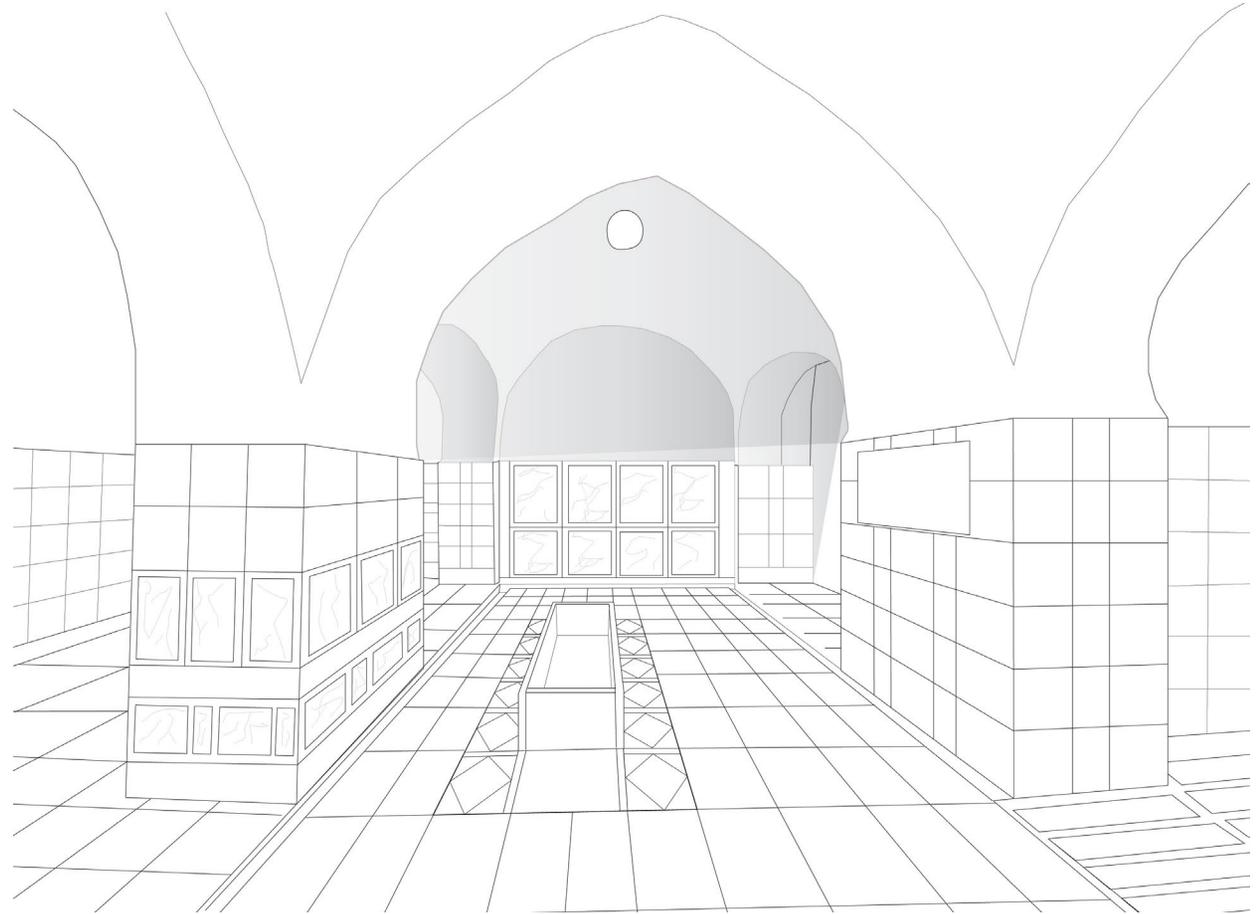
 Finishes vault paint color to be repaired or replaced

Existing Condition & Proposed Work

Remove the mirrors hang on the wall

Finishes vault paint color or Saroj decayed will repaint with new paint strategy that have a high durability, water and moisture resistance





Completed Restoration

Stepping into the new Hammam



We propose to use a warm threshold as a transition space to separate the traditional hammam from the contemporary space. The additional space will differ from the original architectural, creating a visual clue that it differs and serves as an extension to the original layout of the *Qibla Hammam*. The transitional space is a liminal zone that is, the creation of in-between space, to separate the traditional and new architecture.

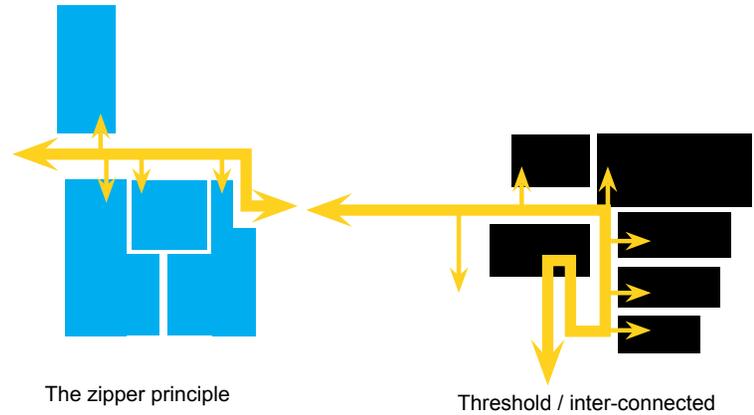
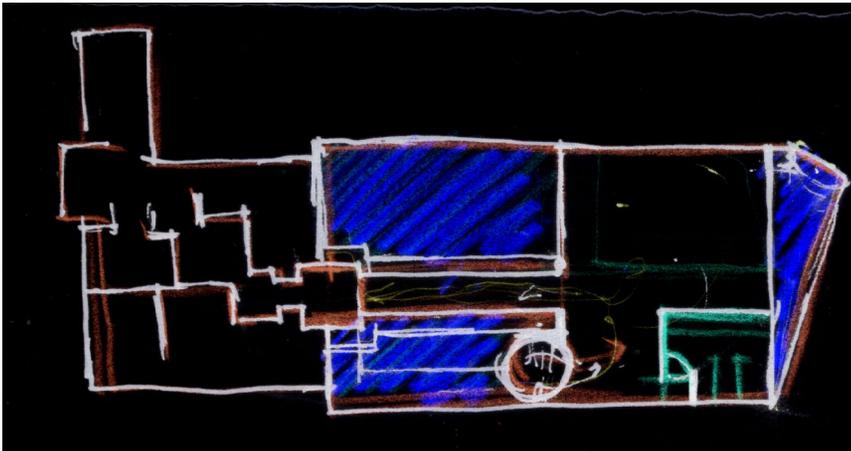
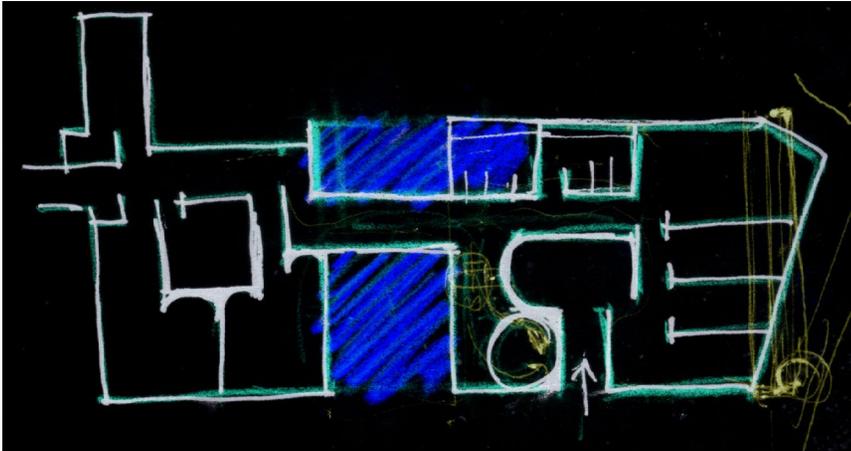
Threshold as a transition space between the traditional hammam and the contemporary space.

[3.4] Design Development:

Sketch of the first phases of the *Qibla Hammam* extension

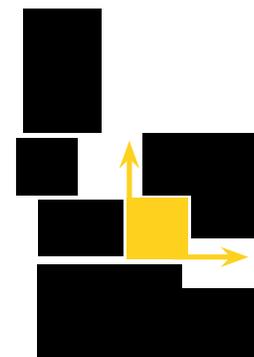


Design Concept

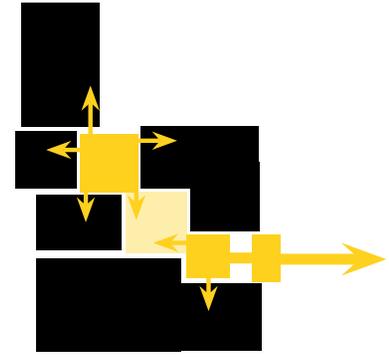


The zipper principle

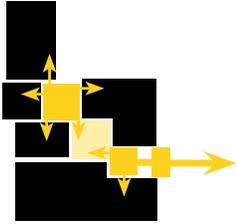
Threshold / inter-connected



Threshold / space between

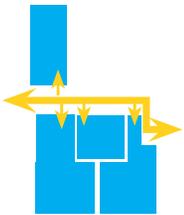


Pinwheel



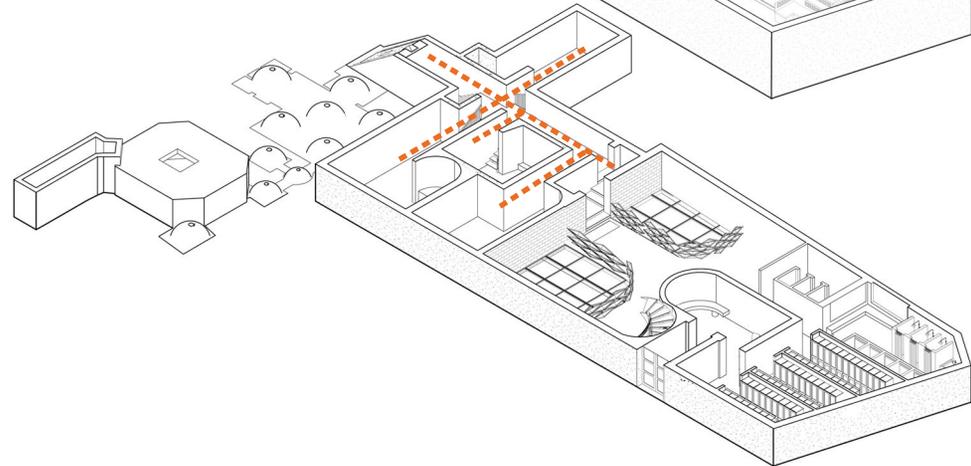
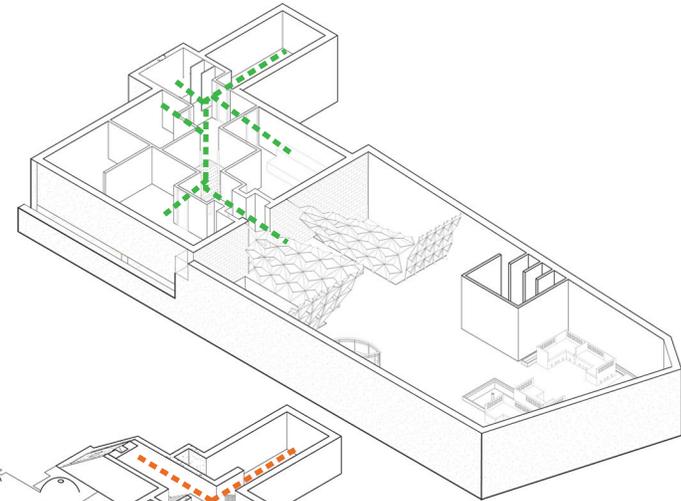
Pinwheel

The *Qibla Hammam* Extension works like a pinwheel, the different spaces such as sauna and massage rooms of the Hammam/Spa connect off a centre point.

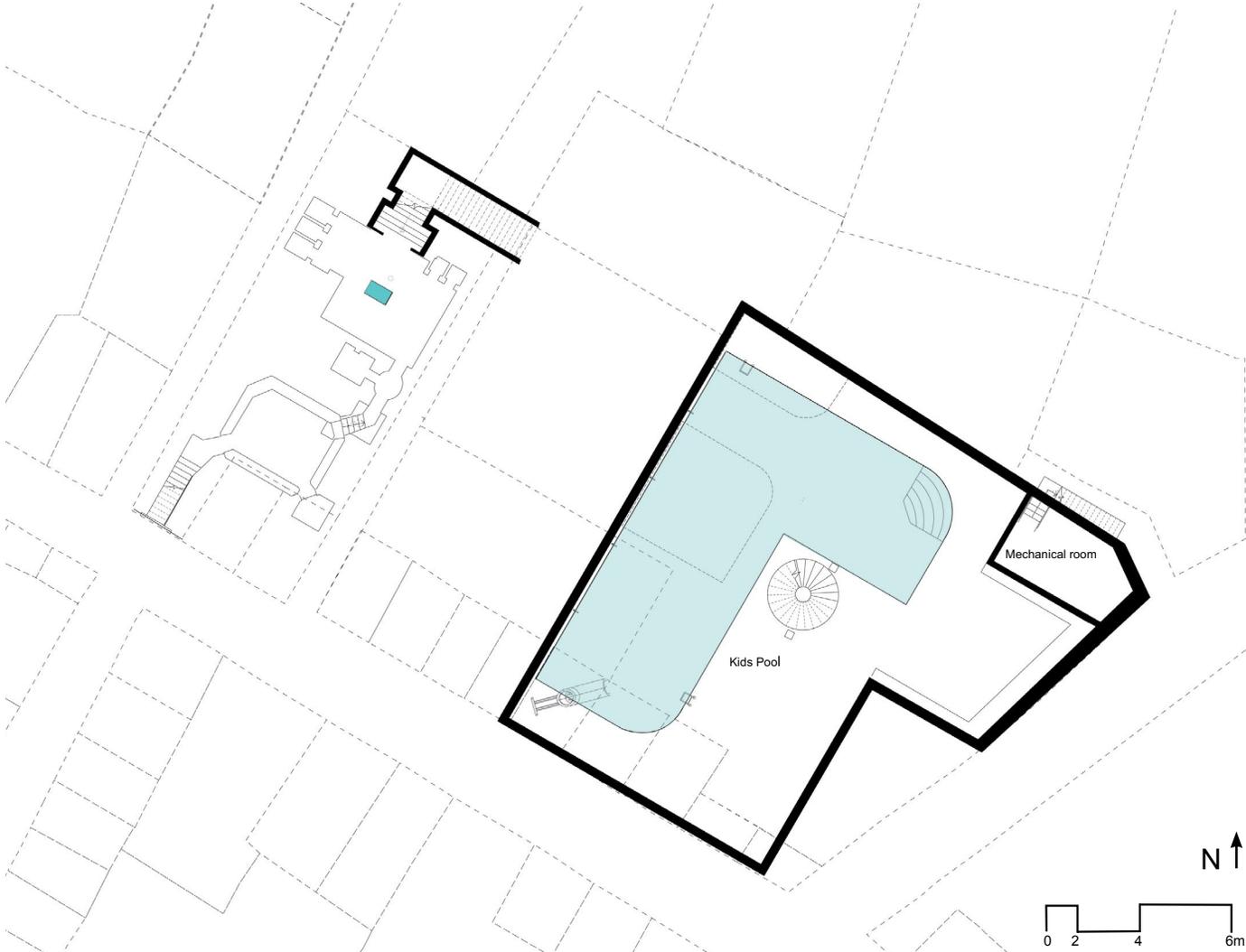


The zipper principle

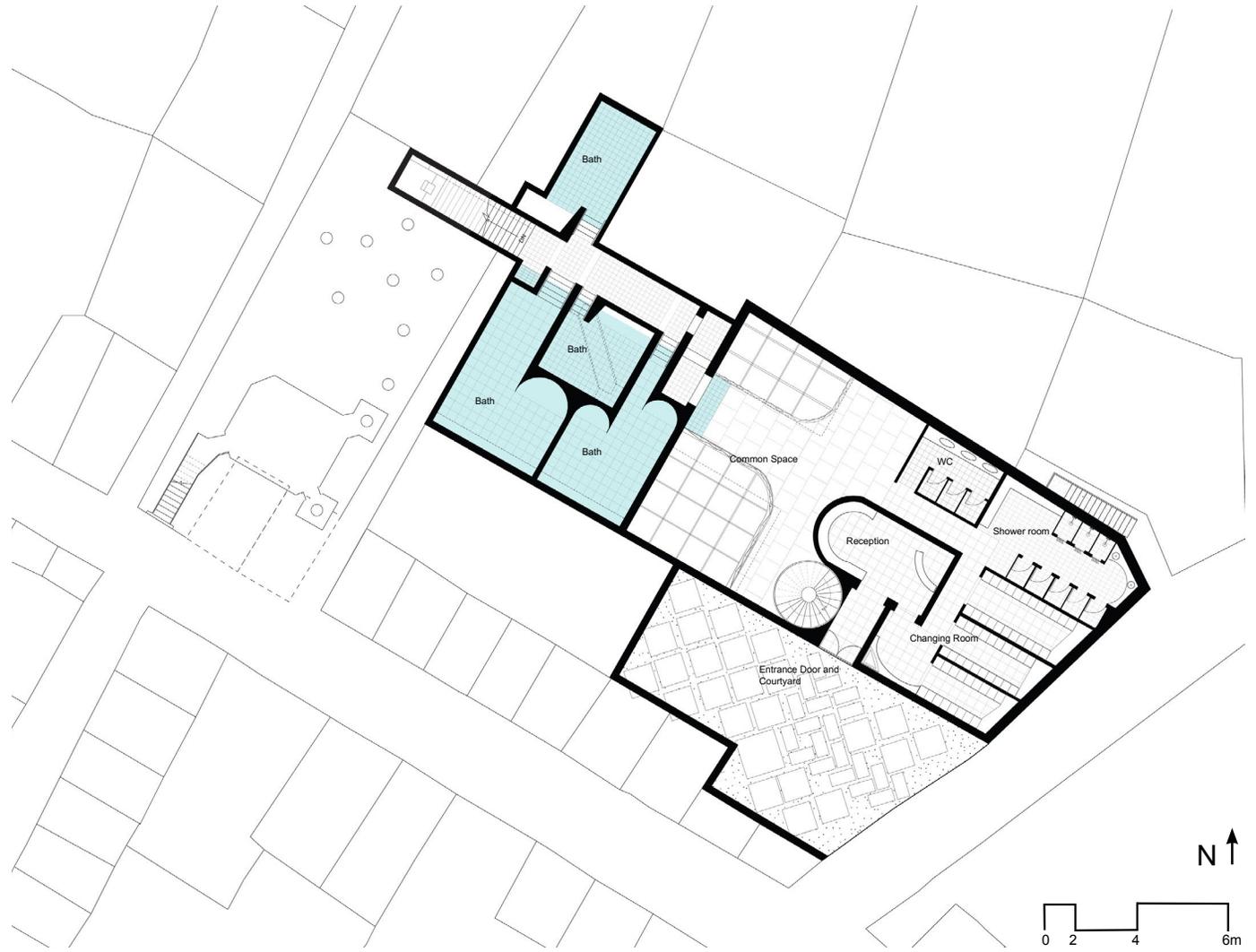
The concept of the zipper principle come from traditional Design of hammam , When on a narrow corridor, every second visitor has an option to go right or left for a different purpose.



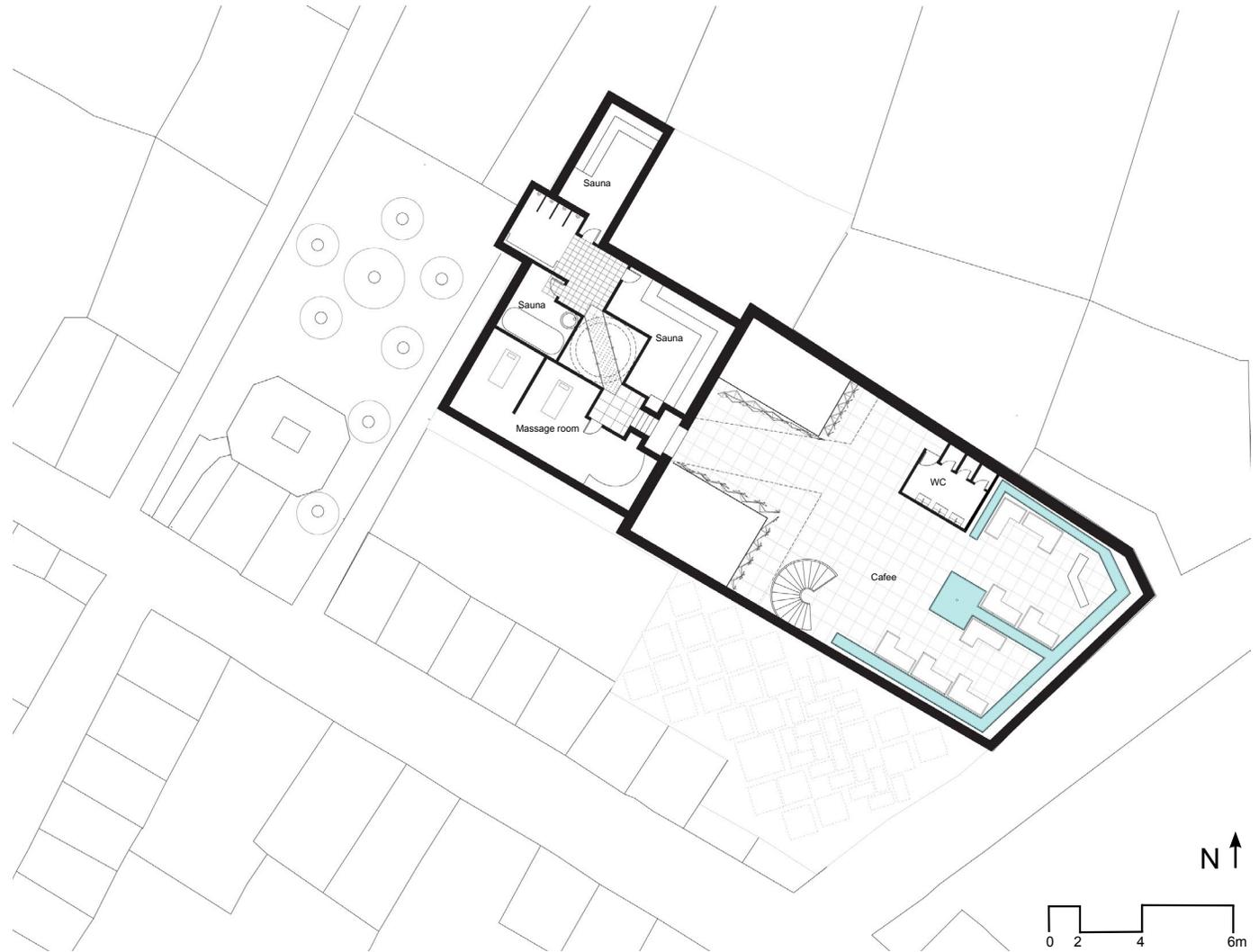
Underground Level Plan



Ground Level Plan



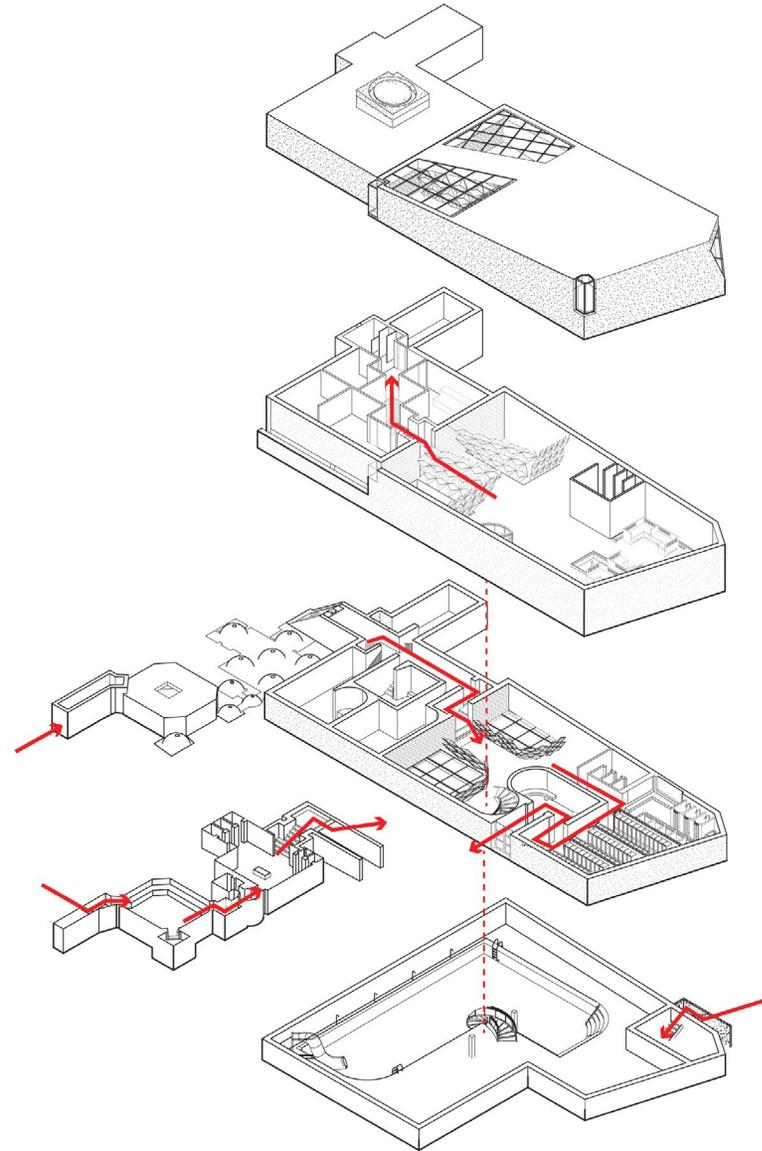
Second Level Plan





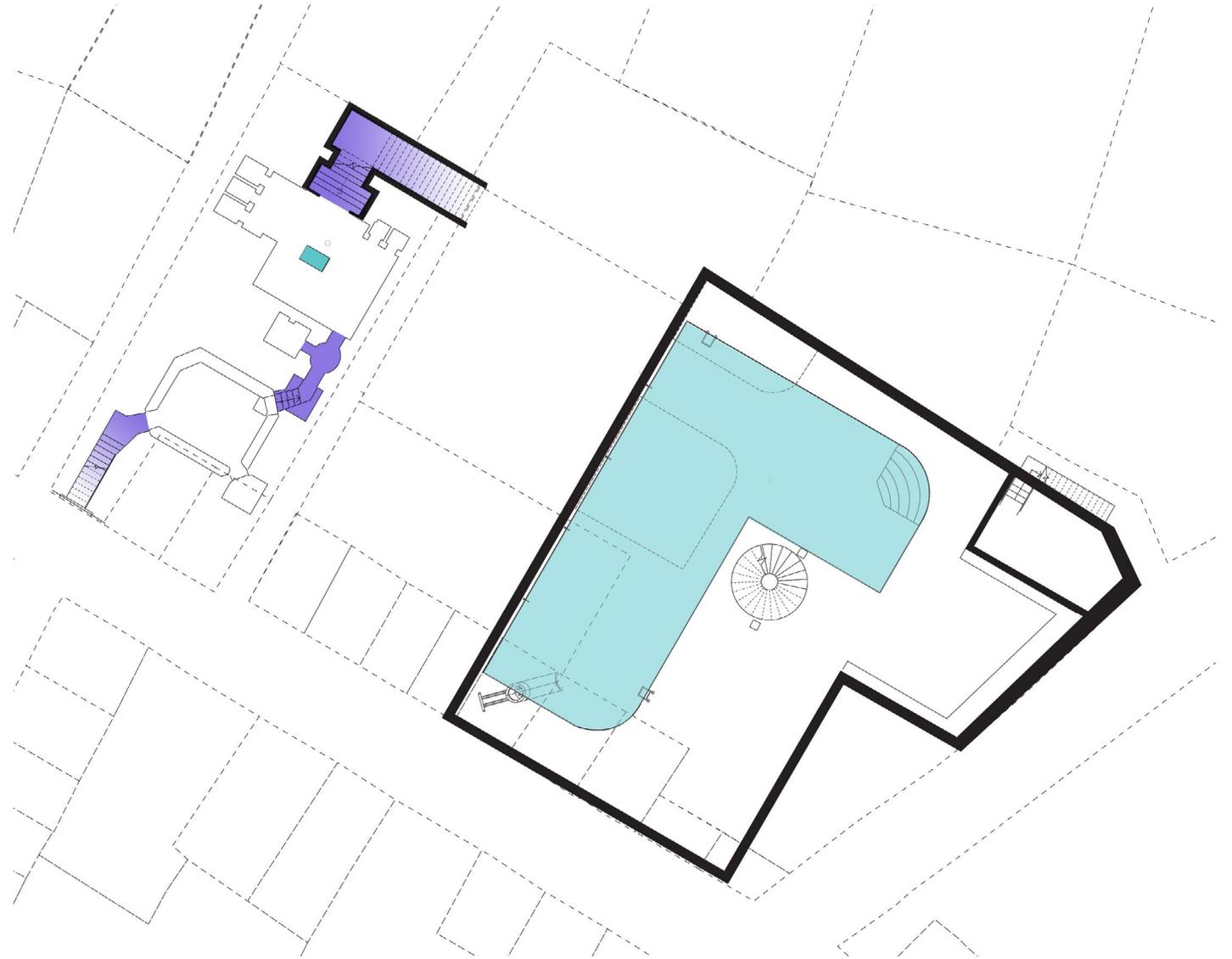
Section: Through All Qibla Hammam Spa

Circulation and Transition Point



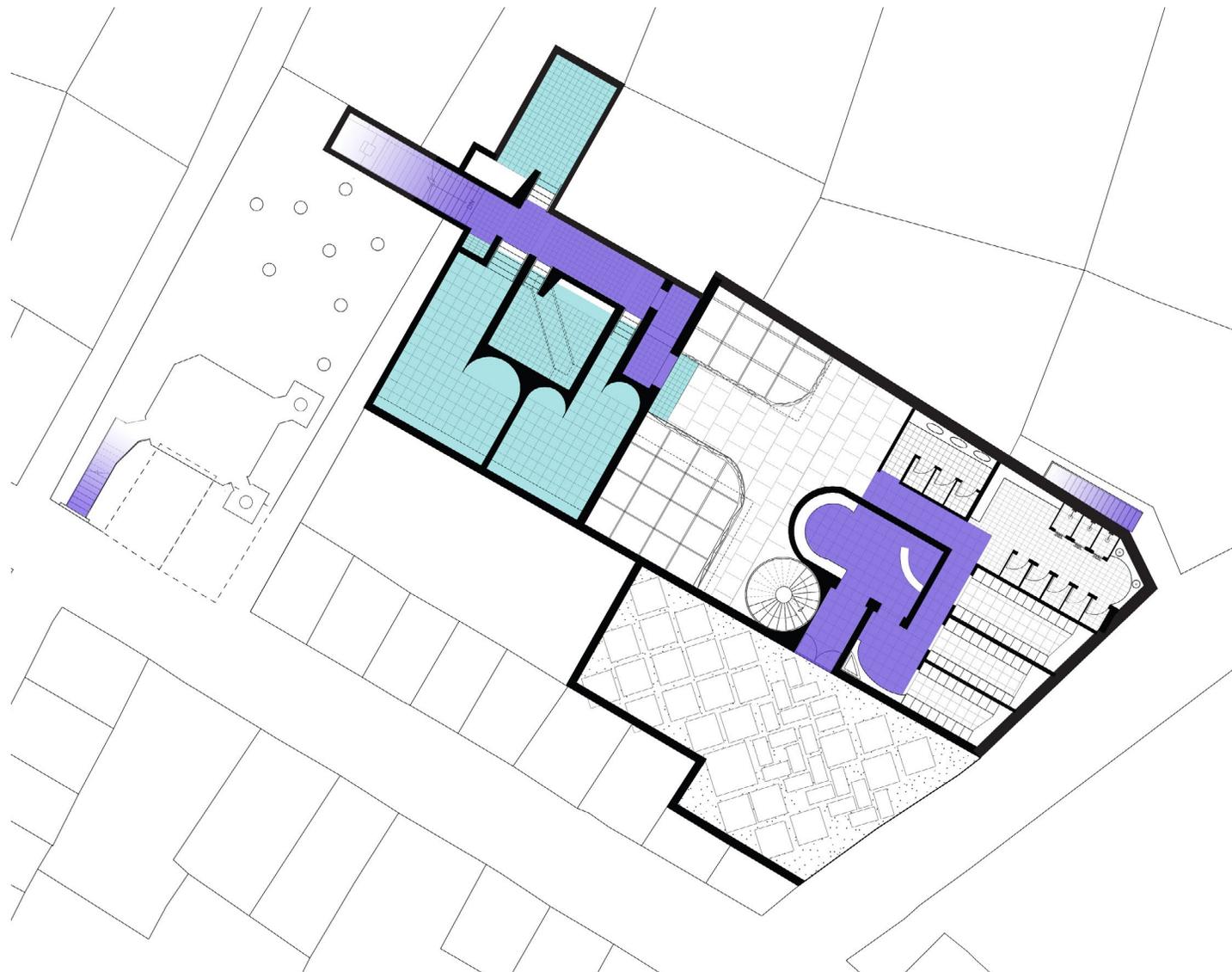
Threshold in Underground Level Plan

 Transition



Threshold in Ground Level Plan

 Transition



Threshold in Second Level Plan

 Transition



Space Temperature in Underground Level Plan

Humid:

Hot

Warm

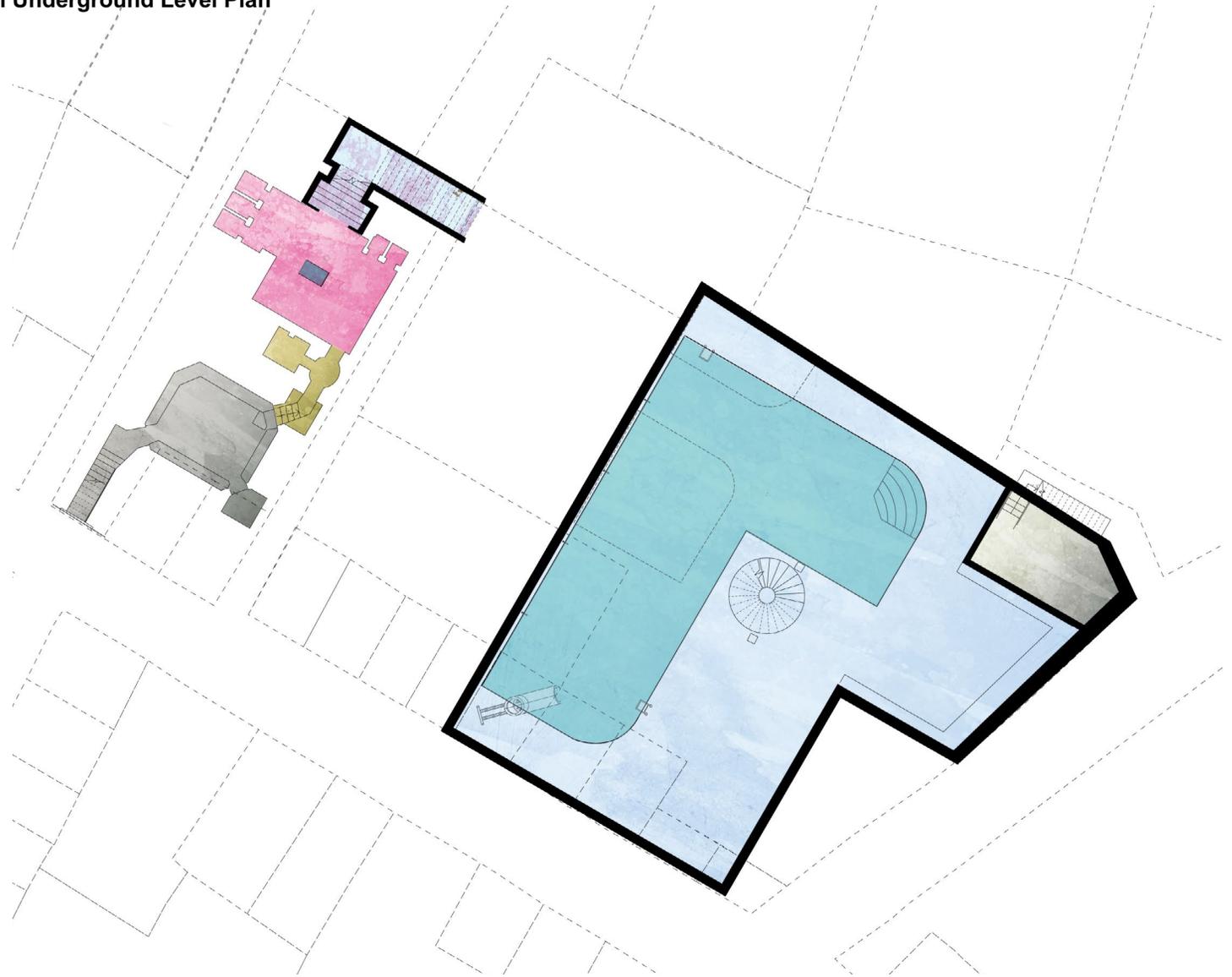
Cool

Dry:

Hot

Warm

Cool



Space Temperature in Ground Level Plan

Humid:

Hot

Warm

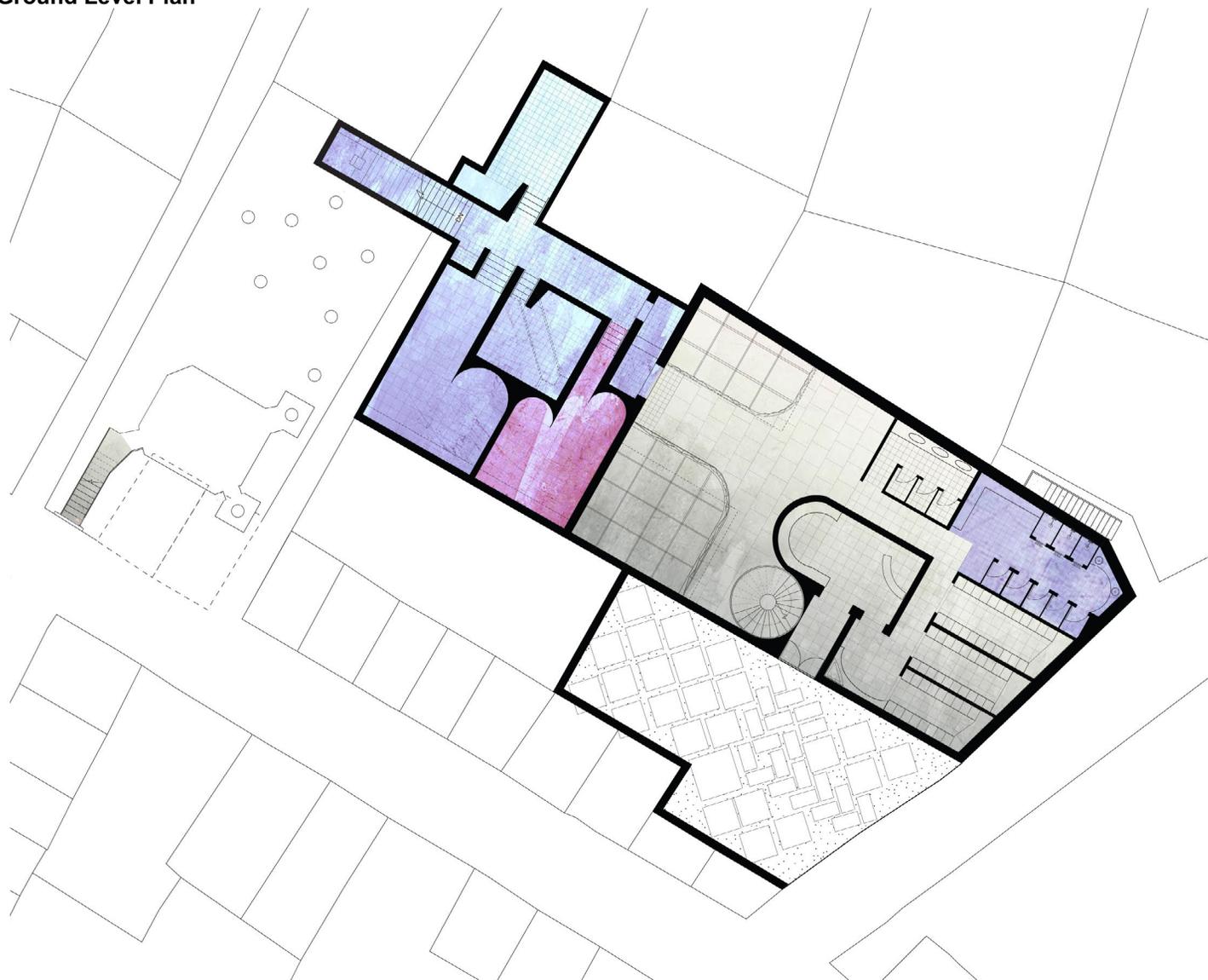
Cool

Dry:

Hot

Warm

Cool



Space Temperature in Second Level Plan

Humid:

Hot

Warm

Cool

Dry:

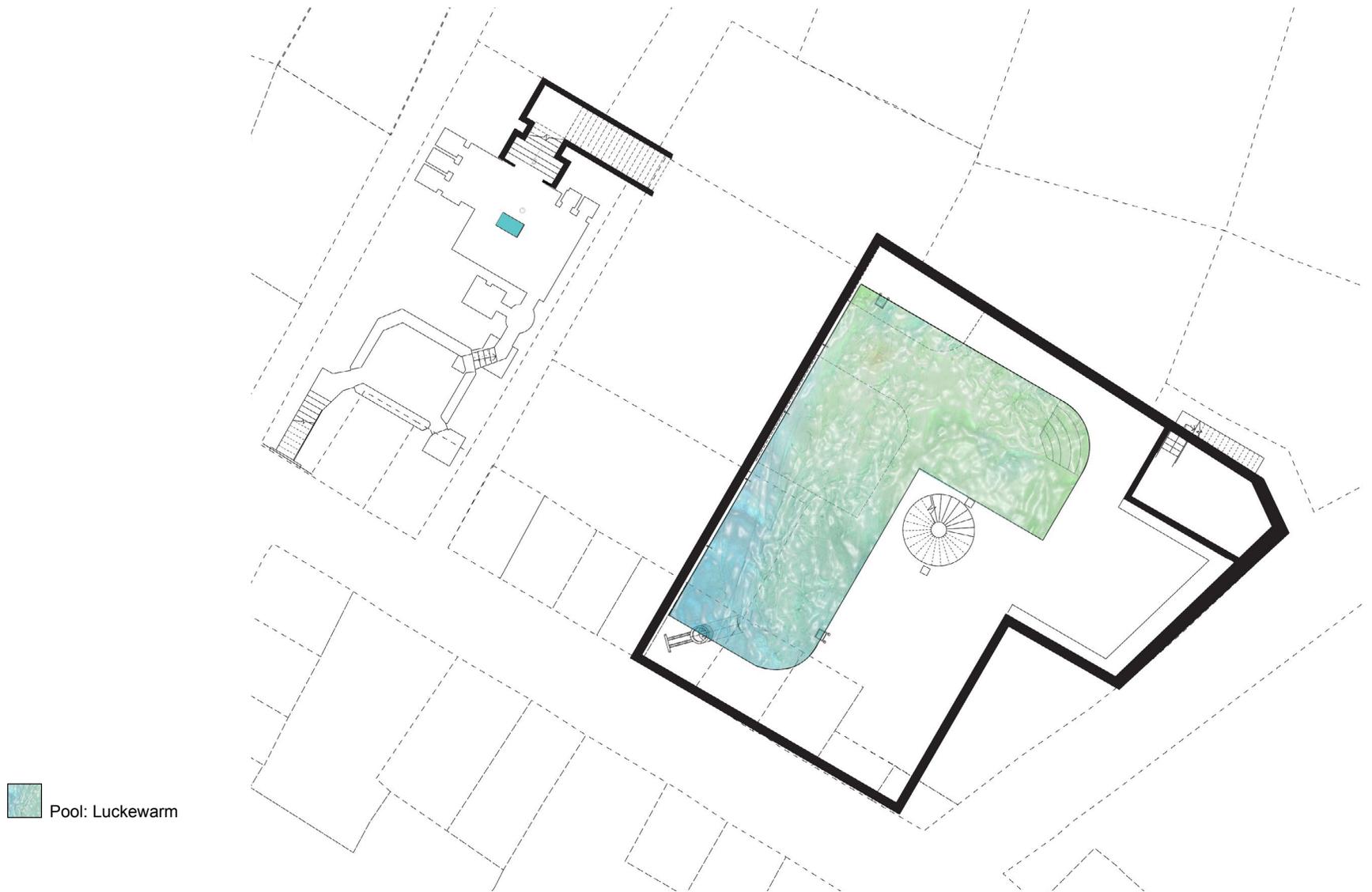
Hot

Warm

Cool



Water Temperature in Underground Level Plan

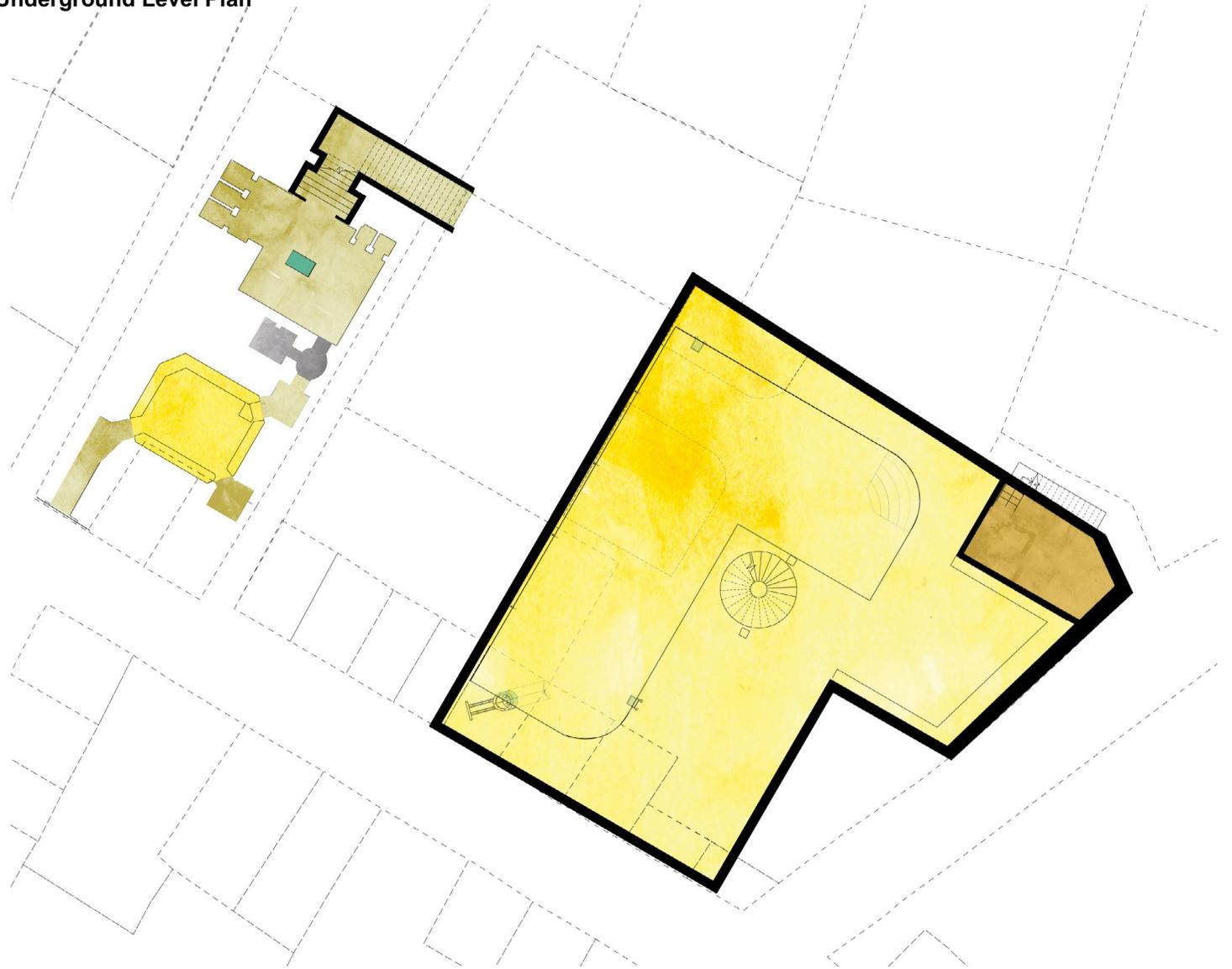


Water Temperature in Ground Level Plan

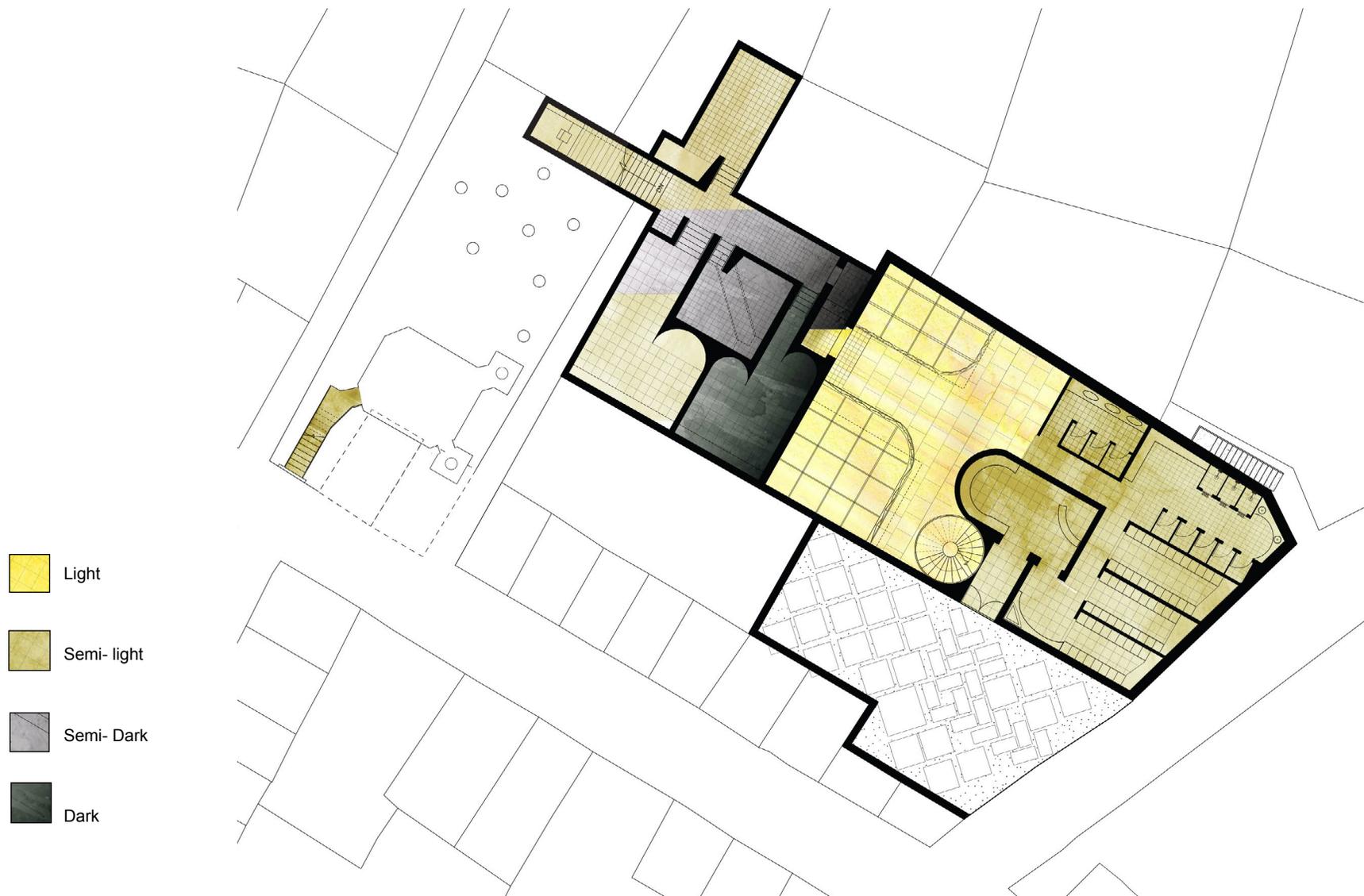


Light in the Space : Underground Level Plan

-  Light
-  Semi- light
-  Semi- Dark
-  Dark

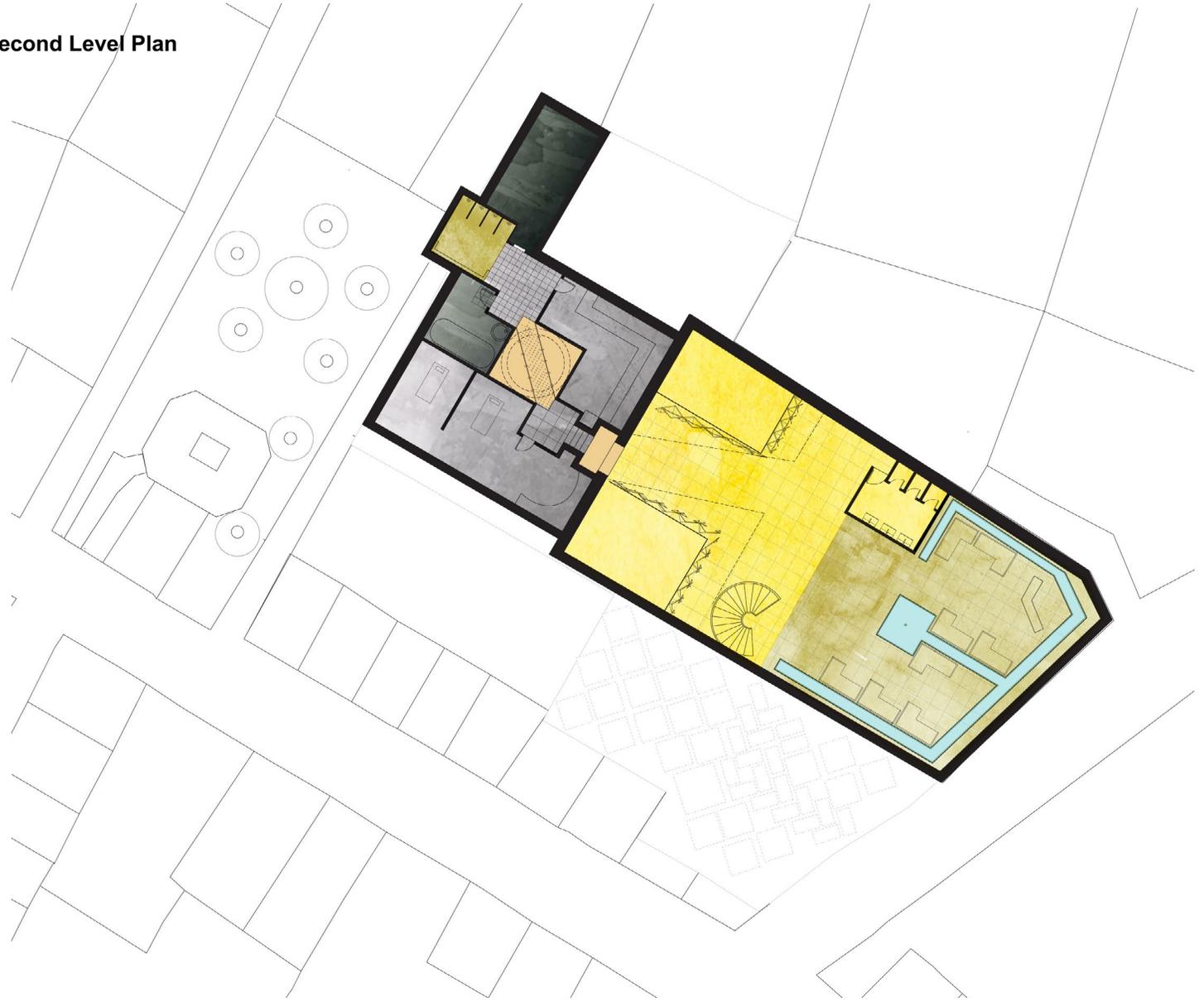


Light in the Space : Ground Level Plan

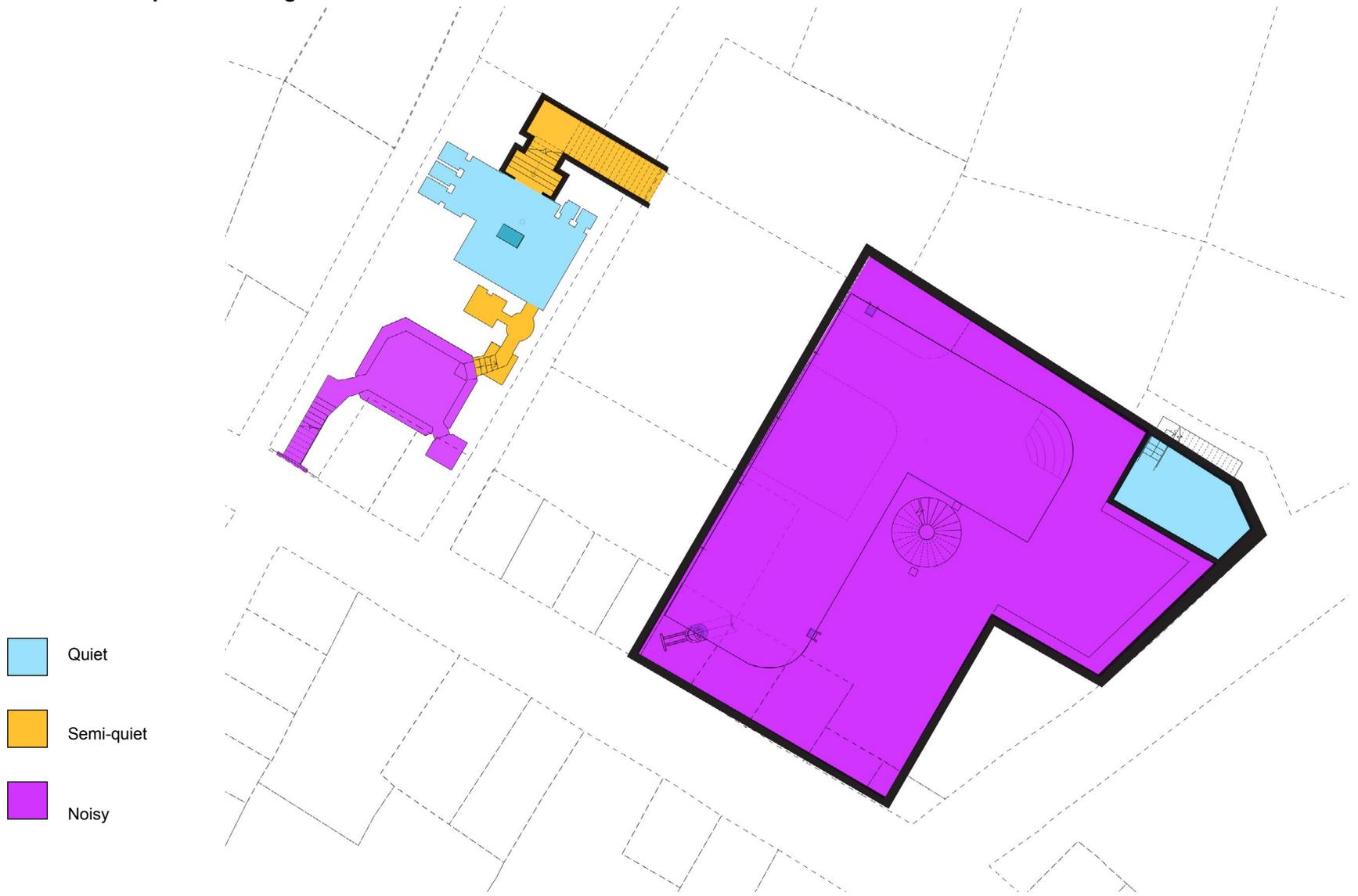


Light in the Space : Second Level Plan

-  Light
-  Semi- light
-  Semi- Dark
-  Dark

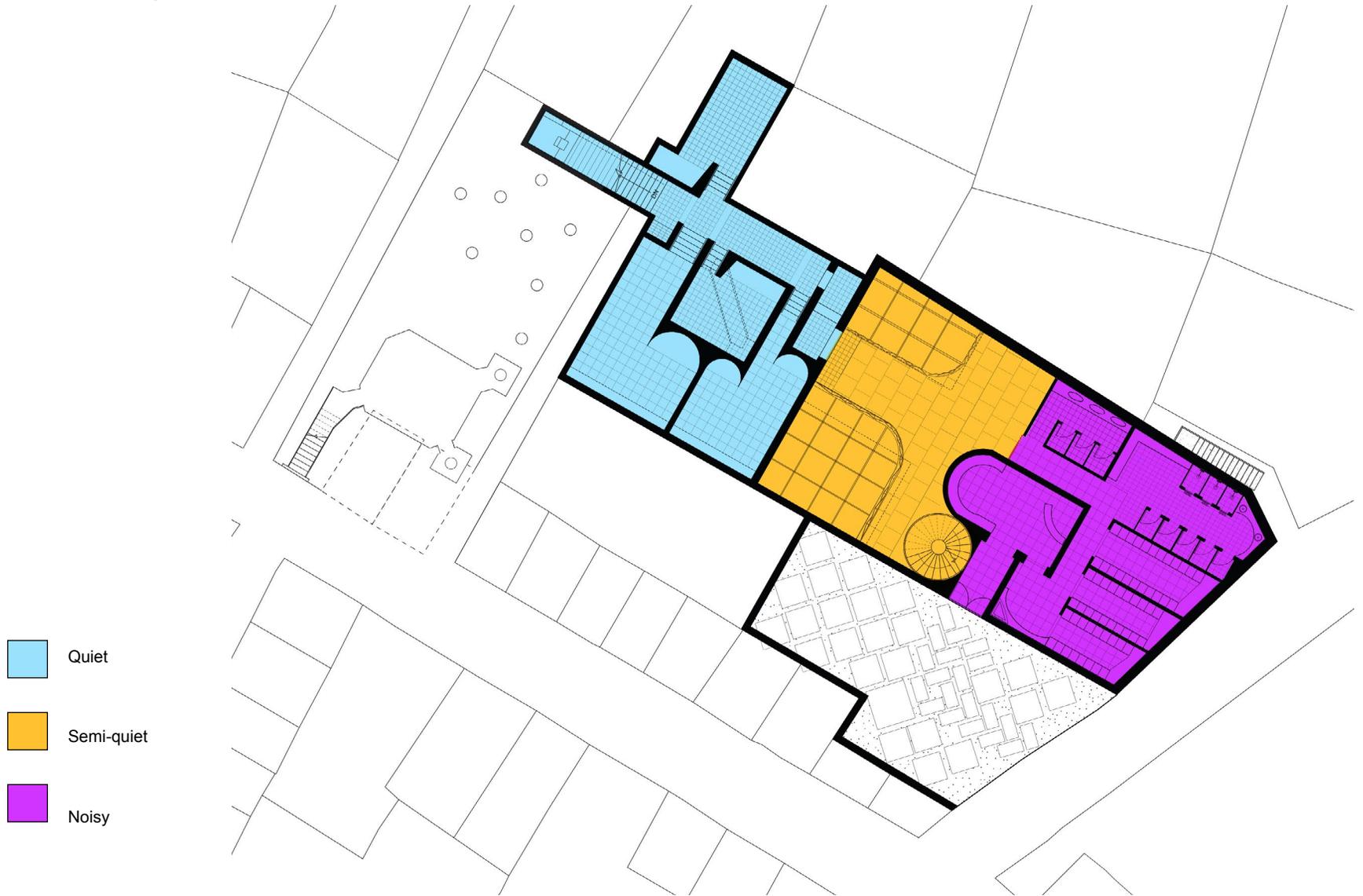


Sound in the Space : Underground Level Plan

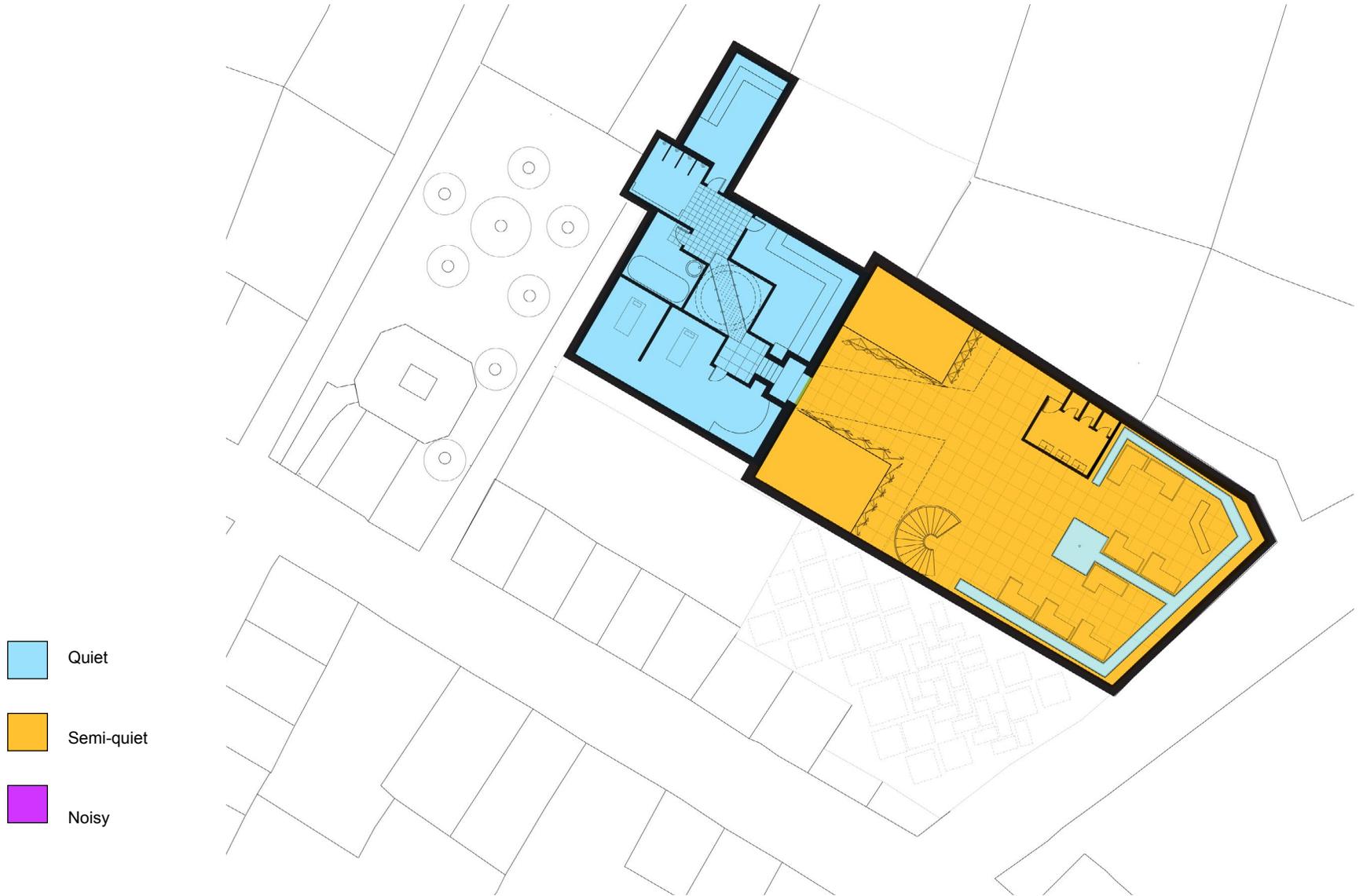


- Quiet
- Semi-quiet
- Noisy

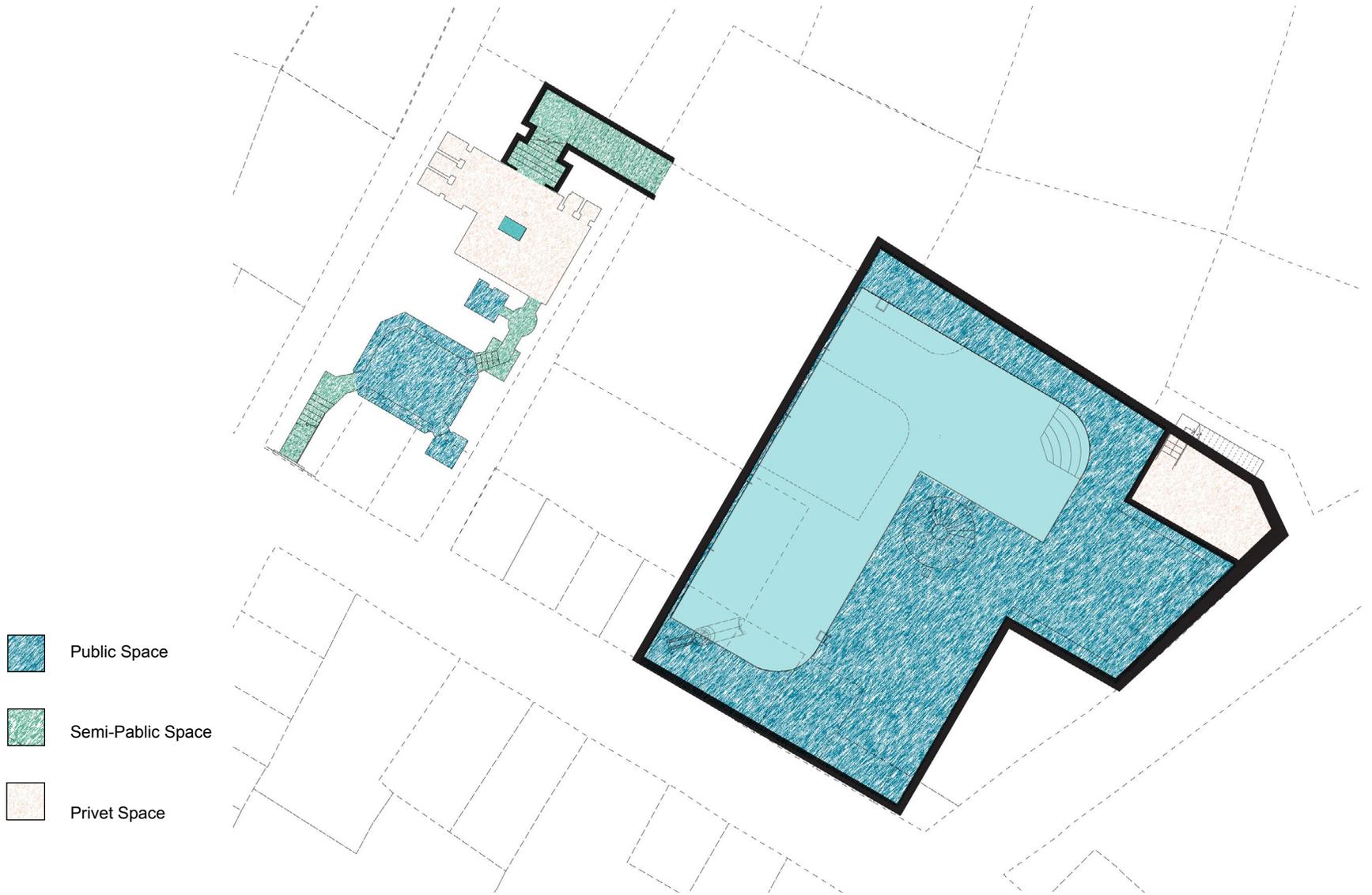
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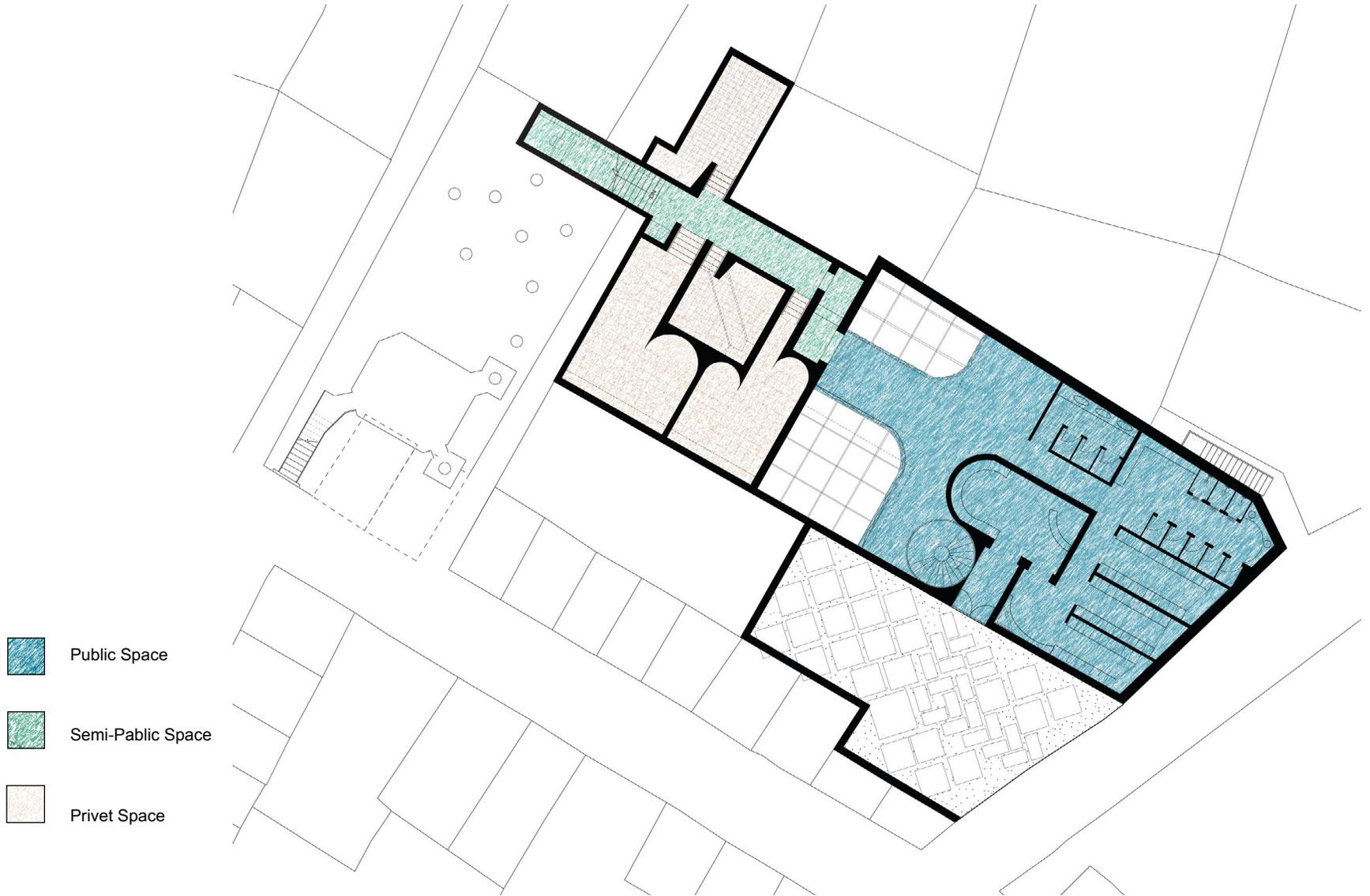
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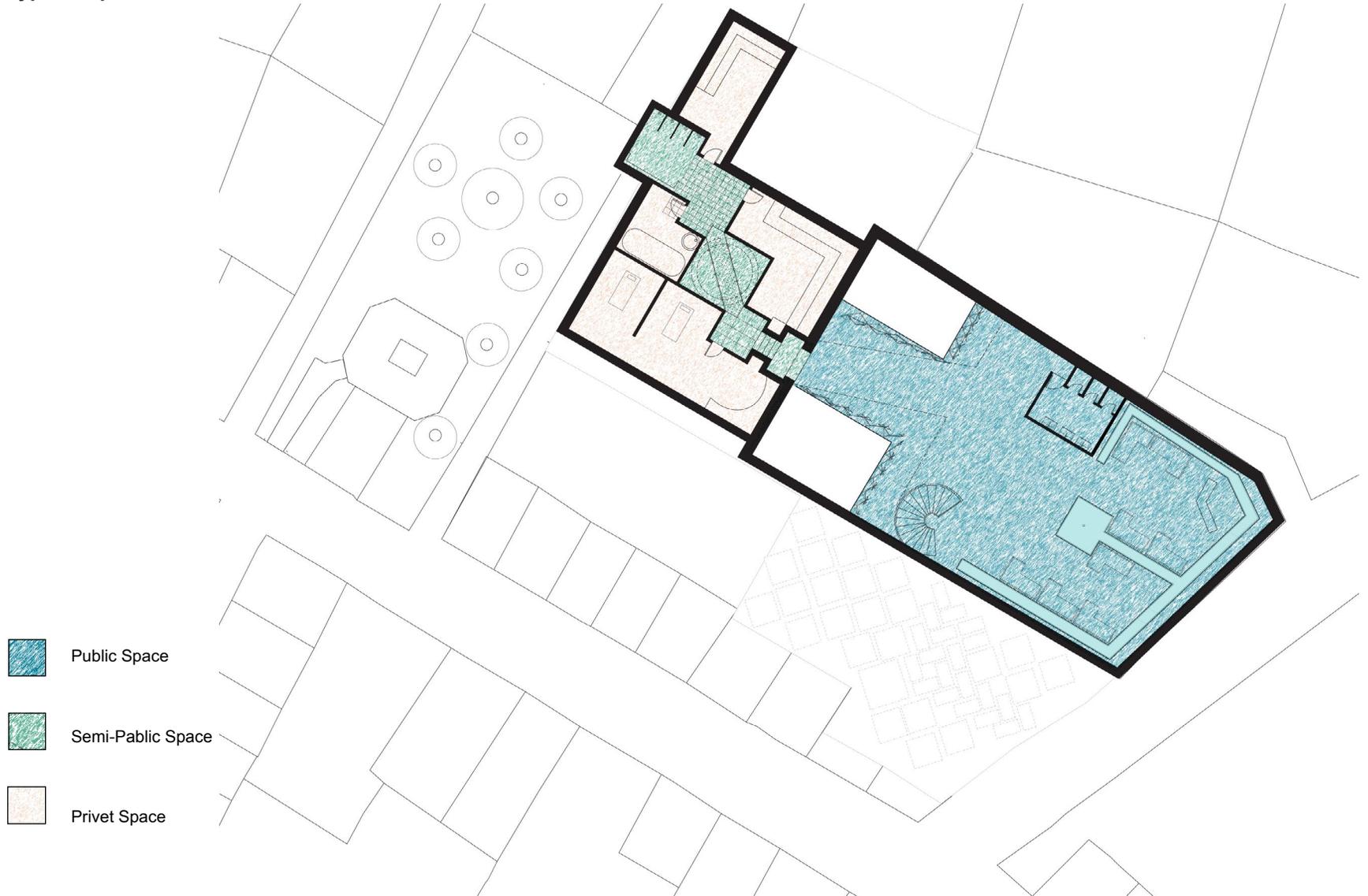
Type of Spaces in Underground Level Plan

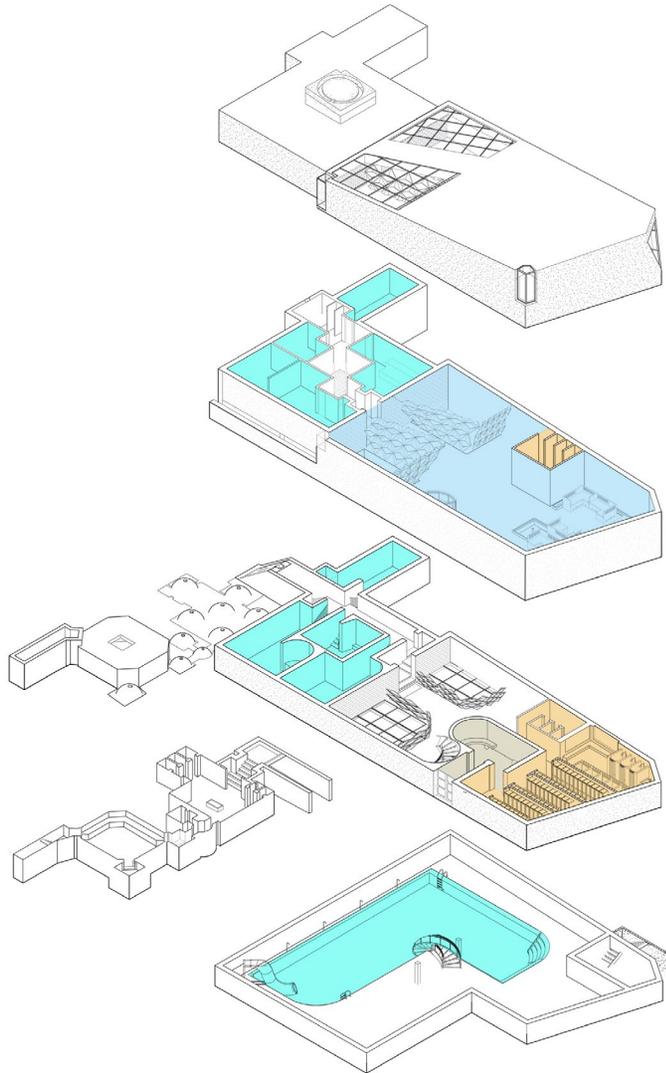


Type of Spaces in Ground Level Plan



Type of Spaces in Second Level Plan





[3.5] Programs

The expansion of the *Qibla Hammam* incorporates the following elements into its design:



Entrance (point of access/exit)



Amenities (changing room, shower room, make-up room, rest room)

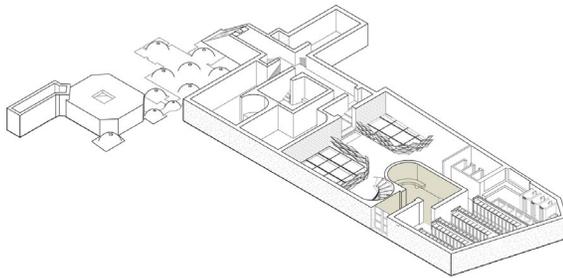


Café (tea house lounge)



Steam room (pool, baths, saunas, massage)

Entrance (point of access/exit)

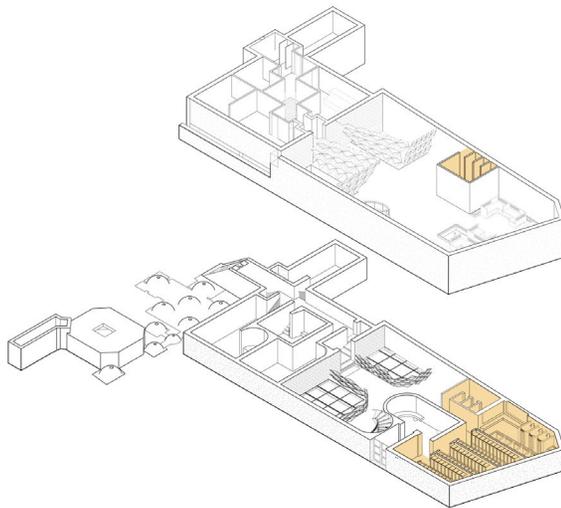


As previously mentioned, the *vorodi* (entrance) of the existing hammam includes a stairway with eleven steps that leads visitors down to the corridor and the *Sar-bineh* (changing room) of the *Qibla Hammam*. The main entrance to the extension of the *Qibla Hammam* will be located on a street that is adjacent to the existing entrance. A courtyard will provide additional space for the entrance and thereby improve visitor privacy. A series of decorative paving stones in the courtyard will lead the visitors to the reception area. These stone are distinguished by two different sizes and shapes; moreover, the paving stones have been chosen for their durability and resistance to abrasions. In addition to its aesthetic value, the courtyard will provide privacy for women who are not permitted to be seen by strangers. A reception (front desk and information) awaits the visitors and prepares them for their visit to both the existing hammam and its new extension. The reception, which has a precast, curved concrete bench, distinguishes the entrance door from the changing room.



Point of Access/Exit

Amenities: (changing room, shower room, make-up room, rest room)



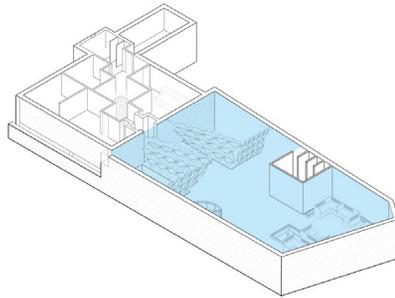
A marble drinking basin leads the visitors to several amenity rooms, such as the changing room, shower room, make-up room and rest room. The changing room consists of three sections lined with lockers, so as to ensure privacy and a high level of functionality. Custom lockers that will be made of dark teak wood with a highly polished finish will line these small intimate spaces and affect the materiality of the artificial light on the concrete wall to give the room a sense of warmth and leave the visitor with a comforting impression. In addition to the changing room, there will be four separate changing booths, so as to allow for additional privacy for those who seek it. Adjacent to the change room are four shower rooms, which are provided to cleanse the body cleanliness both before entering and leaving the hammam. Beyond the existing building is an underground passageway; the corridor of changing rooms, thus serving as a threshold to the baths and entire bathing space. After passing through the amenity rooms, we continue into the common spaces, which offers a lot of natural light.



Changing and Shower Room

Café (tea house lounge)

Elements of traditional Persian aesthetics are added here and there to create an authentic feel. For instance, the *takht* (traditional dining bed) is placed inside of the dining area. In a private corner at the front of the restaurant, you will find a comfortable, candlelit lounge which provides an ideal spot to sip on a Persian tea or coffee.



Drinking tea takes on a ritual form in Persian culture. Tea in the *chaikhana* (teahouse) is served on a *takhts* (low rise platform), which is covered with rugs and pillows. Traditionally, we remove our shoes, sit on the platform and the tablecloth is laid at our feet. While sipping our tea, we could recline on the pillows and chat with our friends; the whole experience is very relaxing, especially if there is a source of water surrounding the *takhts*.

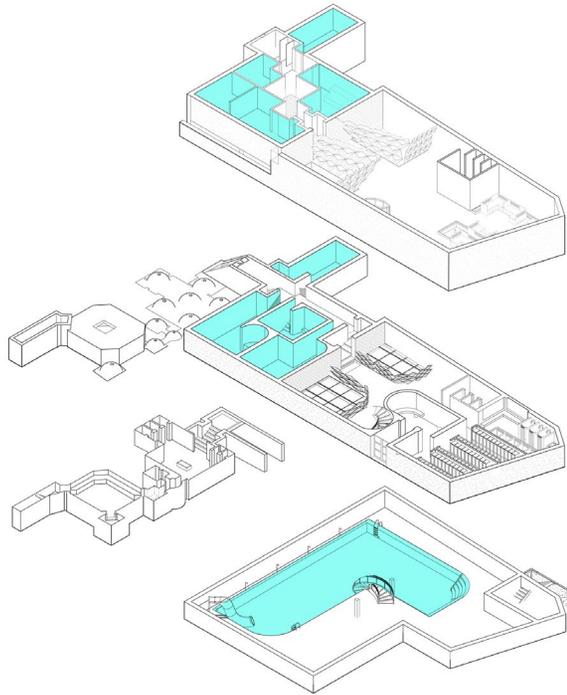


The Tea House Lounge



Common Space in Second Level Plan

Steam Room (pool, baths, saunas, massage)



The existing steam room consists of a large space with a number of shower rooms in its corner. In our extension to the *Qibla Hammam*, however, the steam room is divided to multiple chambers based on function and efficiency.

Pool:

There is a pool with different depths, the temperature of which is appropriate for swimming; meaning that it is quite chilly. The underground pool is included especially for kids, who would enjoy swimming and the water slide. We envision a combination of grayish marble and concrete as the material to be used for the wall. A laminated acoustic glass will help to reduce sound intrusions from the pool into the quiet spaces, such as the baths and saunas, where parents are trying to relax.



The Underground Pool

Baths:

As a matter of fact, the extension to the *Qibla Hammam* is based on standard information, as well as researching and analysis of Thermal Baths by Peter Zumthor and an appreciation of the Nordik Spa-Nature in Ottawa.

Following the changing room, there is a common space which the bather enters from one side and subsequently comes out on the other side ready for the bath. The bather will pass through a threshold on their way to the four different baths. The threshold serves to prevent the loss of heat from the baths. These four baths are characterized by different themes and temperatures; the fire bath is hottest bath with a temperature of 42°C. The sound bath is at body temperature (36°C) and is accompanied by relaxation music. The Rosewater bath is a lukewarm bath with a temperature of 30° C, while the coldest bath is the Damavand mineral water (14°C). A contemplative stillness in the baths is produced from the

flicker of the lights upon the water of the baths, paired with their reflection on the matte marble surface of the walls. The opening to the fire bath (42°C) is on the short side of the threshold, which facilitates the body's movement into that particular space, thereby following the natural flow of the room. In contrast, the opening to the Damavand mineral water bath (14°C) is on the long side of the threshold, which would force the body to enter the threshold and subsequently turn a corner, slowing down the movement before the plunge into the cold water. The Rosewater bath is located opposite the cold bath, while the sound bath (body temperature) is in between the lukewarm and hot water baths. The sound bath allows sound to travel through an opening and pass directly to the upper floor, particularly to the transition bridge, which is a passageway that leads to the sauna and massage rooms.



The Rosewater Bath



Baths Threshold

The Bather Will Pass Through a Threshold on Their Way to the Four Different Baths.



Saunas Bridge

This Bridge Connects the Saunas,
Massage Room

Saunas:

This bridge connects the saunas, massage room and, beyond that, the showers. The extension to the *Qibla Hammam* will incorporate three saunas. Each one will have a unique environment that varies in temperature and humidity, while also differing in their architecture, materials, layout, air volume and several other factors. These saunas are divided into three different types:

1. Dry sauna:

It is a small, dry heat sauna that is constructed in a spacious building and typically dominated by solid wood. It can accommodate up to seven people. Its curved bench and lack of opening combine to make the sauna an intensely intimate experience.

Characteristics:

- Type: Dry
- Temperature: 76-80°C
- Atmosphere: Silence

2. Steam sauna

It is a chamber with a high degree of humidity that is covered by ceramic tiles, giving this type of sauna a distinct climate. It has two levels of benches each with varying exposure to heat, with the highest level being the hottest.

Characteristics

- Type: Humid
- Temperature: 46-50°C
- Atmosphere: Silence



3. Meditation sauna:

It is a dry heat sauna made from solid wood, which is heated by fire. The fireplace in the centre will induce an inner reverie of relaxation and provide an ideal setting for meditation. The current of heat radiates from the middle, rises to the ceiling and rolls back down the outer walls. Thus, sitting with your back to the wall allows heat to flow down your spine, relaxing your entire nervous system.

Characteristics:

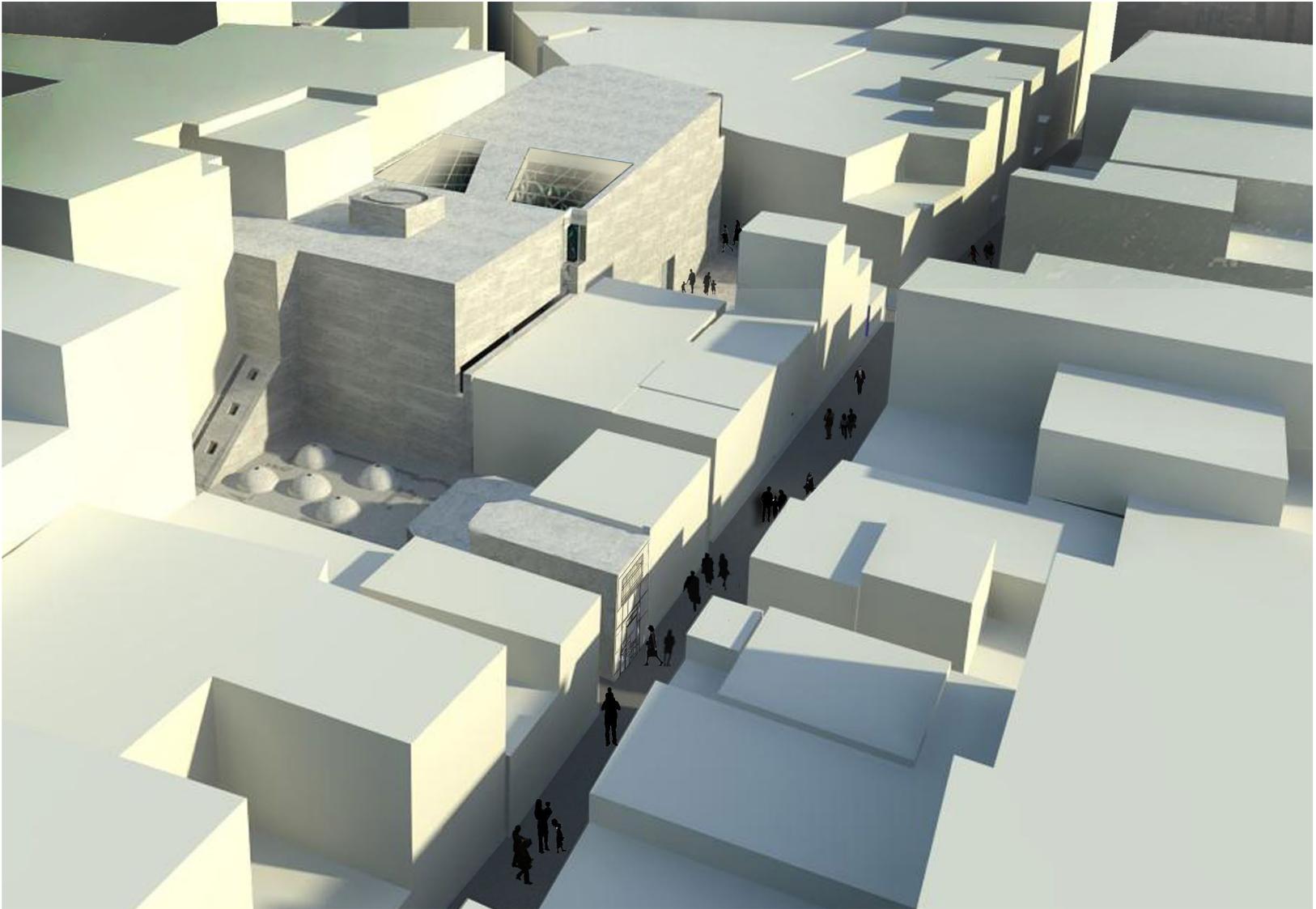
- Type: Dry
- Temperature: 85-90°C
- Atmosphere: Silence



The Final Facade of the Existing Hammam



The Facade of the New Extension



The Qibla Hammam Spa Top View

PART 4: Postscript

For this thesis, we have considered the *Qibla Hammam* as a heritage site in Tehran; therefore, its conservation and revitalization is fundamental. This thesis sets out to preserve the existing hammam, however, an additional program and spaces were incorporated to further accommodate the needs of the local community and create a holistic hammam experience.

The baths are an essential component of the spa. There are four baths which are characterized by different themes and temperatures; the fire bath is the hottest, the sound bath is a body temperature bath accompanied by relaxation music, the Rosewater bath is a lukewarm bath and the coldest bath is the Damavand mineral water bath. Aside from the detailed attention to light and water, the new program also offers a coffee shop, a separate place for kids to play, meditations spaces and baths with varying temperatures. The inclusion of space for children to play and interact with each other allows parents to fully relax in the hammam. The meditation spaces are completely private and

designed to create a separation from the outside world. Moreover, they are sound proof to the outside world; the only audible noise is the subtle sound of the fire in the hearth, thereby creating a space for contemplation and tranquility.

Even though sustainability has not been discussed in detail but enough consideration was given during the designing stage to minimize energy usage, by designing thresholds to maximize heat transfer in the baths and saunas. The design also includes two openings to brighten up the building and saves energy for lighting the building. Also to minimize waste water, water filtration technologies, which is not part of this thesis, could be used to recycle the water used in the swimming pools and the baths.

Since antiquity, hammams have been important to Iranian peoples for the purpose of physical and spiritual cleansing. In order to protect the traditional identity of the *Qibla Hammam*, it is important to not only preserve the structure of the hammam, but to also revitalize its primitive function. Today, most of the restored

or preserved hammams in Iran have been converted into museums. In doing so, the structures lose their existing function and can no longer be considered a hammam. To protect the identity and increase value of the *Qibla Hammam*, extra care and thorough analysis is required in the restoration process.

Major restoration is required on the main façade; this includes replacing the broken glass and damaged stones. There are also several repairs to the interior that are required, such as replacing the basin and replacing interior floor tiles with quality marble. Local, quality materials will be used to ensure the longevity and durability of the hammam. To guarantee that the original design and identity of the *Qibla Hammam* is unchanged, the materials were carefully chosen so that they would emulate the existing stones and composition of the façade.

In this case, every effort was made to protect the original design of the hammam, as well as its essence and identity. As a result, the spa-bath will now attract more visitors to this historic site without

sacrificing its original function.

At one time, the *Qibla Hammam* was once abandoned and used only by the poorest members of the community. Now, we are proposing to convert it into a space that everyone can use and explore. The hammam can now foster community interaction, serving as a place to share ideas, while also taking advantage of the many existing and new amenities. Preserving the existing hammam and adding new extensions will demonstrate a bigger picture of this rewarding spacing by bringing all social classes back in one frame in the *Qibla Hammam Spa*.

The economy of *Chaleh Meydan* has been struggling for some time and it is considered one of the poorest regions in Iran. Therefore, this thesis seeks to demonstrate how the hammam could become a symbol of hope and spur on further development within the community. If so, this could result in a better economy, an improved standard of living and cleaner community spaces. Only with an intervention such as this can this contemporary

hammam fulfill the practical and spiritual needs of the community. The essence of the hammam is timeless, and this thesis sets out to demonstrate why this historical site remains relevant and vital today. Merging this historical building with a contemporary spa, binds the past and present and reconciles tradition with modernity. The next step in such projects is to involve owners of such properties and present them with ideas on how to preserve these heritage buildings while they remain relevant and merging them with contemporary facilities to fulfill the needs of the communities.

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Bibliography

1. Abizadeh ,Elnaz, and Babazadeh Oskuei Solmaz "Investigating Presence of Water and its Conceptual Manifestation in Architecture of Courtyard of Fin-e-Kashan Garden." *Journal of Applied Environmental and Biological Sciences* 3, no 8 (2013): 88-99. <http://textroad.com/Old%20version/2015>
2. Afrogh, Mohammad (in Persian). "vijegihaye Hammam Irani dr ahd safavi" (The Persian Hammam Features in The Safavid Dynasty). *Ketab-e- Mah-e- Honar* 130 (2009):
3. Alayi-Bakhsh, Narges. "A comparative study of the bath of cold climate and warm climate in Iran" Master's diss., Islamic Azad University of Tehran, 2003. 2015 .khi. ac.ir/commission3/Papers/ARC%20%28160%29.pdf
4. Al Hoda, Hoda (in Persian). "Ab dr Memari irani" (Water in Persian Architecture). *Ketab-e- Mah-e- Honar* 58 (2004):
5. Ali Zamani Fard, Articles presented to the Conference on Bathrooms in Iranian Culture (Kerman: A.R.C., 2005)
6. Ardalan, Nader. "Places of Public Gathering," In *Places of Public Gathering in Islam*, edited by Linda Safran. Philadelphia: Aga Khan Award for Architecture, 1980. <http://archnet.org/2015>
7. Ardalan, Nader, and Bakhtiar Laleh. *The Sense of Unity. The Sufi Tradition in Persian Architecture*. Chicago, Chicago University Press, 1973.
8. Babaei, Mohammadreza, Hosein Soltanzadeh and S. Yahya Islami. "A study of the lighting behaviour of Moshabak in Kashan's houses with emphasis on the notion of transparency." *Architectural Science Review* 56, no. 2 (2013).
9. Birjandifar, Nazak. "Royal Women and Politics in Safavid Iran." Master's diss., McGill, 2005. <http://digitool.library.mcgill.ca/2015>
10. Bouillot, Jean. "The Physical and Climatic Dimensions Of The Mediterranean Hammams." *International Journal of Architectural Research* 2, no 3 (2008).
11. Cumont, Franz, *The Mysteries of Mithra* (Chicago: Open Court, 1903)
12. de Châtel, Francesca. "Vanishing Water Landscapes in the Middle East: Public Perceptions, Political Narratives and Traditional Beliefs Surrounding Water and Scarcity in an Arid Region." PhD diss., Radboud University Nijmegen, 2014.
13. Ekahe, Rezayi, and Mehdi Bataghva (in Persian). "Hammam Dr Sher v Adabiyat Irani" (Hammam in poetic literature of Iran). *Ketab-e- Mah-e- Honar* 58 (2003).
14. Fadli, Fodil and Magda Sibley. "The Historic Hammams of Cairo." *Journal of Architectural Conservation* 14, no. 3 (2008).
15. Ghafouri, Mohamed Reza. *Mineral Water & Mineral Spring of Iran*. 2nd ed. Tehran: University of Tehran, 1885.
16. Habibi, Farah, Alborsi Fariba and Etesam Iraj. "Light Processing in Iranian Houses; Manifestation of Meanings and Concepts." *International Journal of Architecture and Urban Development* 3, no. 9 (2013):11-20. <http://www.noormags.ir/2015>
17. Hajazi, Mehrdad and Fatemeh Mehdizadeh Saradj. *Persian Architectural Heritage: Architecture*. Southampton, UK: WIT Press, 2014.
18. Jackson, Melanie Lynn. "The Principles of Preservation: the Influences of Viollet, Ruskin and Morris on Historic Preservation." Master's diss., Southwestern Oklahoma State University, 2006.
19. Javid, Hoshang (in Persian). "Mozik v Hammam" (Music and Hammam). *Ketab-e- Mah-e- Honar* 58 (2003).
20. Jodidio, Philip (ed.). *Iran: Architecture for Changing Societies*. Torino: Umberto Allemandi, 2004.
21. Joylon, Leslie. "New Life for Old Structures." *The Aga Khan Award for Architecture*, 1992. <http://www.akdn.org/architecture/2015>
22. Khosh Nazar, Rahim, and Rajabi Mohamamad-Ali (in Persian). "Nor v Farhang dr Miniatur Irani v Isalm" (The Light and Colure in The Persian Miniature and Islamic). *Ketab-e- Mah-e- Honar* 127 (2009).
23. Lotfi, Ali Reza, and Hosein Masjedi. *Garmabeh's Glossary: With the Approach to Isfahan Baths*. 5th ed. Tehran: Aban Book, 2013.

24. Mehjo, Firoz (in Persian). "Hamam dr shahrhaye Iran v Isalm" (Hamam in Cities of Iran- Islam). *Ketab-e- Mah-e- Honar* 58 (2003): 66-60.
25. Mir Shokrayi, Mohammad (in Persian). "Culture and Water." *Ketab-e- Mah-e- Honar* 58 (2003): 3.
26. Mortazavi, Mohammad. "Evolution, Historical Review and Classification under the Glazed Tiles in Iran." *Journal of Fine Art* 46 (2011): 35-46.
27. Noban, Mehr.Al-Zaman (in Persian). "Ab, Niyayesh v Bavardr Frhang Omom" (Water, Rituals and Beliefs in Popular Culture). *Ketab-e- Mah-e- Honar* 135 (2008): 66.
28. Ohadi, Mansour. "TEHRAN: FROM THE ASPECT OF SOCIOLOGY History, Demography, the Present, and Perspectives Of the Pedram ,Behnam, Mohammad Reza Aowliya and Reza Vahidzade (in Persian). "Evaluation of the Authenticity in Conservation of Persian Heritage: The Role of Continuity Vernacular Culture in Artistic Creation." *Journal of Restoration Works and Historical Contexts, Cultural* 2 (2011): 2-16.
29. Rajabi, Mohammad-Ali (In Persian). "Falsafeye Suhrawardi dr Nor v Tasir on dr Miniyyator Irani" (Suhrawardi philosophy of illuminationand its effects on the persian miniature). *Ketab-e- Mah-e- Honar* 117 (2009): 44-36.
30. Rooholamini, Mahmoud. *Pubic Bath: Today's Society and Culture and Literature*. Tehran: Ettelaat, 2007.
31. Sabeti, Elahe (in Persian). "Vijegihaye Memari Hamam dr Miniyyator Irani" (Hamam Architecture Features in The Persian Miniature). *Ketab-e- Mah-e- Honar* 84 (2003): 138-132.
32. Sajadi, Ali (in Persian). "Hamam v Estehmam" (Hamam and Bathing). *Ketab-e- Mah-e- Honar* 58 (2003) 10-4.
33. Sardashti, Nader (in Persian). "Miniyyator v Hamam" (The Miniature in Hamam). *Ketab-e- Mah-e- Honar* 58 (2003): 104-100.
34. Sarmento. J., and Z. Kazemi. "Hammams and the contemporary city: the case of Isfahan, Iran." *International Journal of Heritage Studies* 2, no. 3 (2012): 30-49.
35. Shihaboddin Yahya, Al-Suhrawardi. "SUHRAWARDI. The Shape of Light: Hayakal al-Nur," edited by M.A. Abu Rayyan. Cairo: al-Maktaba al-Tijariyyah al-Kubra, 1957.
36. Seyyed Hossein Nasr, *Three Muslim Sages: Avicenna, Suhrawardī, Ibn 'Arabī* (Cambridge: Harvard University Press, 1964).
37. Tahmouri, Ali, and Sarvenaz Hoseinrazavi. "Study about Presence of Nature in Iranian Architecture with Analytical Approach on Water." *WAP* 3, no. 9 (2013): 406-16.
38. Valibeig, Nima, Fatemeh Mehdizadeh and Farhad Tehrani (in Persian). "The Geometrical and Mathematical Analysis of Panjohaft Arches in Iranian Barrel Vaults." *Journal of Restoration Works and Historical Contexts, Cultural* 2 (2011): 2-16.
39. Weaver, M.E. "Preliminary Study on the Conservation Problems of Five Iranian Monuments." Paris : UNESCO, 1970.
40. Zafrulla Khan, M. (trans.). *The Quran*. NW: Olive Branch Press , 1997.
41. Zakeri, Nahid (in Persian). "Niyayesh ba Ab" (worship on the water). *58* (2003): 154-50.
42. Zomorshidi, Hosein (in Persian). "Honr Saroj v Tazinat dr Hamam haye Tarikhi" (The Art of Saroj and Decorations at Historical Public Baths). *Ketab-e- Mah-e- Honar* 58 (2003): 82-78.

43. Moghdsiyan, Abdol Majid (In pFarsi) "The Qibla Hamam (The Khanum Hamam)." *IRANSHAHR Encyclopaedia of the Iranian Architectural Histor*. 2002. Accessed August 5, 2015. <http://www.iranshahrpedia.ir/>.
44. "Dumreicher, Heidi, Richard S. Levine, and Magda Sibley-Behloul. "Hamam Rehabilitation Reader." 2012. Accessed August 5, 2015. <http://mimar-architects.com/reader.pdf>.
45. Majlesi Abozar (in Persian). "Mfhom Nor v Farhang dr memari doreye Safaviye" (Concept of Light and Colure Regards to Architecture in The Safavid Dynasty). *Ketab-e- Mah-e- Honar* 118 (2008)

Appendix A: Glossary of Terms

Achaemenid Empire:

Persian Empire established by Cyrus the Great in 559 BC.

Sassanid Empire (224 -651 CE): The last great Pre-Islamic Persian Empire. Sassanid period witnessed high achievements of Persian civilization.

Safavid dynasty (1501–1736):

was one of the most significant ruling dynasties of Persia (modern Iran) after the fall of the Sasanian Empire - following the Muslim conquest of Persia in the seventh century A.D.

Zoroastrianism: an ancient Aryan religion that was established by Prophet Zoroaster more than 2500 years ago in north-east of Iran. Zoroastrianism served as the state religion in Iran for many centuries, more significantly during Sassanid period before it was gradually marginalized by Islam from the seventh century onwards.

Mehr worshippers: were a mystery religion.

Garmabeh: Hammam, bath, (garm, "warm") +(âb, "water")

Sorna and Dohol:

is an ancient Iranian woodwind instrument.
is a large cylindrical drum with two skin heads.

Mulla Nasreddin: was a Seljuq satirical Sufi, believed to have lived and died during the 13th century

Abzan: a giant bowl

Avesta: is the primary collection of sacred texts of Zoroastrianism, composed in the otherwise unrecorded Avestan language.

Sahaba of Muhammad: refers to the companions, disciples, scribes and family of the Islamic prophet Muhammad.

Shahnameh-khani :singing the exact verses of the Shahnameh from memory or using the book without any manipulations.

Naqqali of Shahnameh : narrating stories of the Shahnameh with special tone, feeling, expression, gestures and movements.

Rumi: was a 13th-century Persian poet, jurist, Islamic scholar, theologian, and Sufi mystic.

Takyeh: Persian term for an open square which functions as a gathering place for Muslims to perform their public rituals.

Hussainia: is a congregation hall for Shia commemoration ceremonies, especially those associated with the Remembrance of Muharram.

Wudu: is the Islamic procedure for washing parts of the body using water, typically in preparation for formal prayers, but also before handling and reading the Qur'an.

Allah: is the Arabic word for God

Qur'an: is the central religious text of Islam, which Muslims believe to be a revelation from God.

Surrah: is a chapter of the Quran. There are 114 chapters of the Quran, each divided into verses

Anahita: In Persian mythology, Anahita is the goddess of all the waters upon the earth and the source of the cosmic ocean; she drives a chariot pulled by four horses: wind, rain, cloud and sleet; her symbol is the eight-rayed star. She is regarded as the source of life.

Ferdowsi: A 10th century Persian poet. He is known for his monumental piece of literature entitled 'Shahnameh' (the book of Kings).

Shahnameh: is a long epic poem written by the Persian poet Ferdowsi between c. 977 and 1010 CE and is the national epic of Greater Iran.

Mithra : "In the Avesta, Mithra is the genius of the celestial light. He appears before sunrise on the rocky summits of the mountains; during the day he traverses the wide firmament in his chariot drawn by four white horses, and when night falls he still illumines with flickering glow the surface of the earth, 'ever waking, ever watchful.' He is neither sun, nor moon, nor stars, but with 'his hundred ears and his hundred eyes' watches constantly the world. Mithra hears all, sees all, knows all: none can deceive him."

Sufi: according to its adherents, is the inner mystical dimension of Islam.

Shah Tahmasp I: was an influential Shah of Iran, who enjoyed the longest reign of any member of the Safavid dynasty

Abzan: a giant bowl

Garmabeh: Hammam, bath,
(garm, "warm") +(âb, "water")

Chal-e-howz or chale-howz is a large and relatively deep pool of cold water in which callers can swim and refresh themselves that usually adjoining the garm-khane.

Sar-bine is a place for undressing, resting and conversing that located past the entrance and before the garm-khane

Garm-khane is the main place of bath-houses where washing and massaging takes place and which includes one ore more khazines.

Gol-jam is the stained glass element used in windows or light apertures.

Khazine is a small washing room adjoining the garm-khane and topping the golkhan, tun, atash-khane or furnace room which is filled with hot water to mid height. Some bathhouses also have tepid and cold water khazines.

Mian-dar is an area between the sar-bine and the garm-khane, which separates them and prevents heat exchange between them.

The Na'eb-es-Saltaneh bazaar: is one of the old neighborhood of Tehran and Nearby the city of Rey

Pari Khan Khanum: was a Safavid princess. She was the second daughter of the Safavid king (shah) Tahmasp I (r. 1524 – 1576) and was a influential and bright figure in the Safavid Empire.

Shia: is a denomination of Islam which holds that the Islamic prophet Muhammad's proper successor as Caliph was his son-in-law and cousin Ali ibn Abi Talib

Chaleh Meydan: is the oldest neighborhood. The first development plan of Tehran in 1855 emphasized the traditional spatial structure.

Dool-Ab Gate: a main Safavid dynasty gate