

***What is the role of light (and its impact on multisensory experience) in the creation of atmospheres within Turkish baths?***

*DESN30150: Architecture in Context 3: 202021*

*Atelier 01: Civic Atmospheres – Elements, Materials, Light*

*Müge Cemile Karataş | Barch (Hons) Architecture | March 2021*



*Figure 1.1: Çemberlitaş Hamam, (Cemberlitas Hamam., n.d.)*

**Word Count: 6270**

Contents

	Page
Contents .....	1
Abstract .....	2
Introduction .....	3
Multi-Sensory Experience .....	3
Light .....	5
Materials .....	7
Case Study 01: Çemberlitaş Hamam .....	9
Case Study 02: Kılıç Ali Paşa Hamam .....	10
Case Study 03: Rixos Thermal Hotel .....	10
Shadow .....	11
Intensity of Light & Hues .....	12
Conclusion .....	14
Glossary, List of Figures, Bibliography .....	15
Appendix A: Ethics Approval .....	17
Appendix B: Structural Diagram .....	18
Appendix C: Interview Notes .....	19

## Abstract

This thesis will explore the multisensory experience produced by Turkish thermal baths, exploring the primary human senses, with a comprehensive investigation into the role of light in association to a person's sensations. The discourse will proceed to interpret the formation of 'atmosphere' through light and chosen case studies will demonstrate these proposals. Hence, the question to be analysed is:

***What is the role of light (and its impact on multisensory experience) in the creation of atmospheres within Turkish baths?***

Each bodily sensation holds a different role for the individual. The distinctive experience every sense holds over a human varies, ranging from: vision, touch, smell, hear and taste, yet their roles run in parallel to one another. The collaboration of senses allows the human body to unlock its full potential and encounter a space in the manner the architect intends the dweller to experience it. Thus, through the amalgamation of senses, the outcome of space is enhanced. As Rasmussen plainly cites, [architecture] “... *should not be explained, it must be experienced*” (Rasmussen, 1962, p.9).

Though the senses perform collectively, within my thesis, I will further delve into the influence of light as the primary influence for exploration of senses in relation to its importance to architecture. More specifically, how light is used to create a multisensory experience in Turkish baths. As a result of the direct influence architecture has on experience, phenomenological contributions are regarded highly. Norberg-Schulz outlines that architectural character is determined by openings, where light is gained, reflected and transmitted (Norberg-Schulz, 1980, p.67). The effects of light in relation to senses; its inevitable formation of shadow; the romanticism caused by luminosity; the mood it can produce; and the ambient atmosphere light can establish are elements of exploration throughout this thesis.

It was compelling to observe the connections between several traditional Turkish thermal baths and identify patterns in relation to the use of materials in relation to light, how they illuminate spaces, and the overall common phenomenological aspects.

The selection of three case studies that will be further analysed will be:

**Pre-1900:** Çemberlitaş Hamam, Istanbul, Turkey

**Pre-1900/Restored Post-1900:** Kılıç Ali Paşa Hamam, Istanbul, Turkey

**Post-1900:** Rixos Thermal Hotel, Eskisehir, Turkey

It can be observed that the uses of light differ regarding natural lighting versus artificial lighting, yet their designs are similar. This contrast between 'tradition' and 'contemporary' will give me a broader insight into my chosen subject, with findings showing the interpretations behind the differences: historic capabilities, design aesthetics, effect on well-being, and so on.

## Introduction

The intention of attending a hammam is not merely for cleansing. Although it withholds heuristic enjoyment, the Turkish baths act as a cultural and social institution, performing an important role in the socialisation of individuals (Turkish Cultural Foundation, n.d.). Despite their functional importance, the baths formerly withheld symbolic implications of societal status, where social life took place (Buyukdigan, 2003). During the Ottoman Empire, the thermal baths were “... centres of social life, although divided by class and trade... were more intimate than the public baths of Rome” (Goodwin, G., 1977, p.20). Where atmosphere is triggered, power of the strong social and cultural lens within baths amplified (Tsikaloudaki, K. et al, 2012). With the core reality of hammam’s purpose is physical and spiritual cleansing, stress must be placed upon light in order to achieve such certainties.

---

*“We were born of light... We only know the world as it is evoked by light, and from this comes the thought that material is spent light. To me, natural light is the only light, because it has mood – it provides a ground of common agreement for man – it puts us in touch with the eternal. Natural light is the only light that makes architecture, architecture” (Plummer, H., 1987, p.135).*

---

## Multi-Sensory Experience

*“The judgement of environmental character is a complex multi-sensory fusion of countless factors which are immediately and synthetically grasped as an overall atmosphere, ambience, feeling or mood” (Pallasmaa, J., 2014, p. 230).* Spaces consist of two thresholds: quantifiable and qualitative attributes. The quantifiable qualities are tangible, thus hold measurable depths of bathing pools, height of domes and width of vaults for instance. Alternately, qualitative qualities are intangible. Such aspects include the aura of a space,

formation of a peculiar atmosphere or the infatuation a soul responds to. There is psychological comfort within qualitative characteristics when quantifiable traits are balanced wholly within a space to form solace. The complementation of elements can alternatively influence an individual’s psychological adaptability through a combination of thresholds (Reiter, S., and Herde, A, D., 2003, p.5). This equilibrium of quantitative and qualitative parameters permits possibilities for heightened sensations within public thermal baths. The outcome of some spaces can feel more comfortable than others due to the intensity of atmosphere formed within the building. Zumthor proclaims that the pleasure of a building lies in its atmospheric merits. There appears to be an inclination for architects to place high importance on atmospheric characteristics of spatial design (Borch, C., 2014). Visionary Rasmussen states that one must dwell in a room, truly experience the grains, take into account why certain colours were used, contemplate the space’s natural circulation and observe the choices of openings to grasp it’s atmosphere (Rasmussen, S.E., 1980, p.33). Heidegger believes that “*design and building attune themselves to the use and needs of... the world*” (Heidegger, M., in Seamon, D., 1993, p.104), reinforcing the notion of atmospheric development within architecture. Zumthor, who has great knowledge on the atmospheric formation within spaces, professes, “*I enter a building, see a room, and – in the fraction of a second – have this feeling about it...*”, (Zumthor, P., 2006, p.13) reinforcing how “*...the design of architectural atmospheres amounts to a subtle form of power, in which people’s behaviour, desires, and experiences are managed without them being consciously aware of it*” (Borch, C., 2014). Thus, users of a space observe using all their senses collectively: “*... the environment contains a great deal more information than is available to these five*” (Heywood, I., 2017, p.67). Pallasmaa articulates this idea further by outlining an important aspect of experiencing atmospheric architecture, expressing that atmosphere is experienced emotionally among all else.

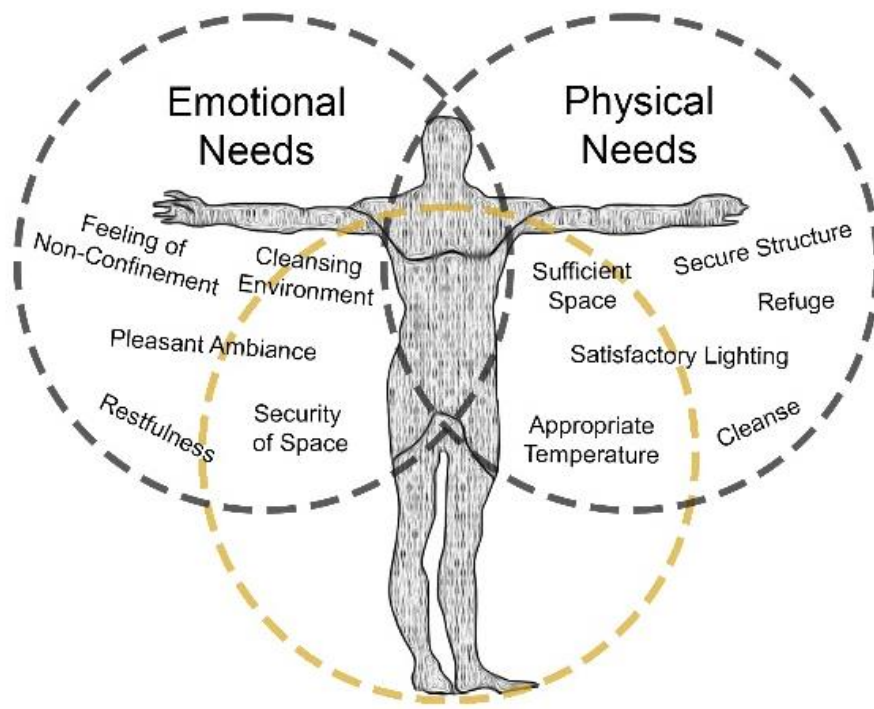


Figure 1.2: Diagram displays the human requirements to achieve a multi-sensory experience, (Karatas, M., 2021).

Thus, an observer first senses a space, embraces it, and is affected by the atmosphere before arriving to an intellectual understanding of it. Which concludes that an individual's pre-cerebral encounter with a space is a multi-sensory experience. A place is initially sighted, heard, felt, savoured, smelt; before it is evaluated rationally and consciously (Borch, C., 2014). Thus Far, perception merely is not a summary of senses; *"we perceive with our whole being"* (Pallasmaa, J., 2012, p.23). Considering light has its own expressions, atmospheres and ambiances, it is undoubtably an emotive means of architectural expression (Pallasmaa, J., 2016). As Merleau-Ponty enunciated, *"... we know not through our intellect but through our experience"*, embodying the essence of grasping the ambience of atmosphere (Merleau-Ponty, M., 1978). In addition to the five Aristotelian senses, we measure and touch the world with our senses of gravity, balance, movement, temporal continuum and self. We touch the world most fundamentally by our existential sense, but this basic experience is not regarded as a sense as such (Soesman, A., 1998). Senses are an atmosphere, in which all things thrive. Deprived of atmosphere,

a Turkish bath is nothing, for it is by this virtue that many attends. It accommodates users with ease of ambiance, welcoming those who enter (Berger, J., 1992, p.242).

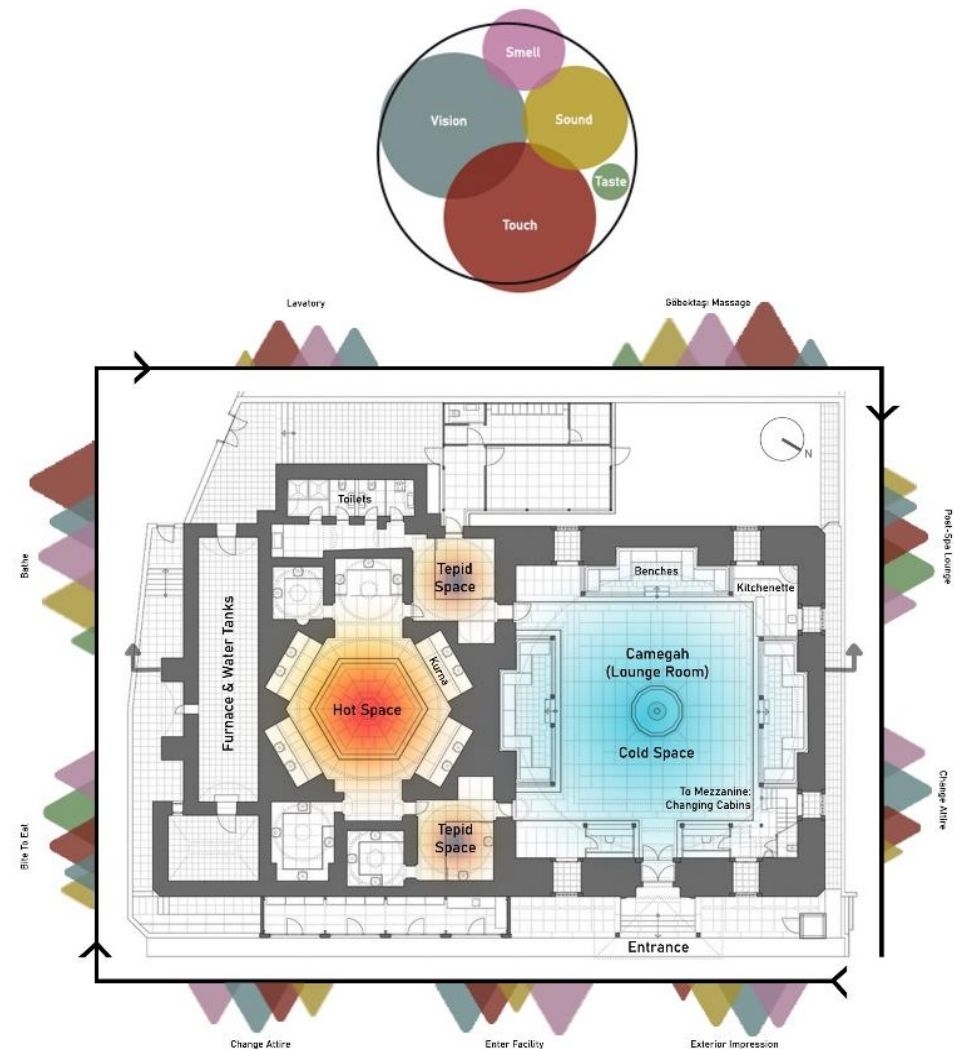


Figure 1.3: Diagram displays user's senses enhanced in particular spaces in accordance with intensity of temperature (experience analysed off hammam's TripAdvisor), (Bozkurt, C., edited by Karatas, M., 2021).

From a diagnostic point, Pallasmaa believes there is a 'quest for a haptic architecture' in modern architecture, in which there is a strong prominence on sight and perspective (Pallasmaa, J., in Borch, C., 2014). With the visual sense dictating an individual's architectural experience, the *experience* is limited, since one sense is predominantly used over the other senses (Zoura, D., 2015). The analogy of a space, features or architecture is perceived through our



sensations. “One sensation induces quiet reflection; another inspires awe...” (Le Camus de Mezieres, N., 1992, p.70). Therefore, to perceive the environment comprehensively, features can be implemented in the design of a Turkish thermal bath to complete the multi-sensory experience. A wholly experience can be gained through qualities such as materiality, acoustics, temperature, texture and volume: once fused, such qualities enhance a space. Hence, an architectural approach has equal weight with how a space feels, sounds, smell to how it appears (Zoura, D., 2015). Pallasmaa fathom’s an individual’s emotions between tepid heat or crisp airflow, or rather intense shadow and lucent light. These contrasts: each nuance, subtlety, refinement, affects the user (Le Camus de Mezieres, N., 1992, p.71).

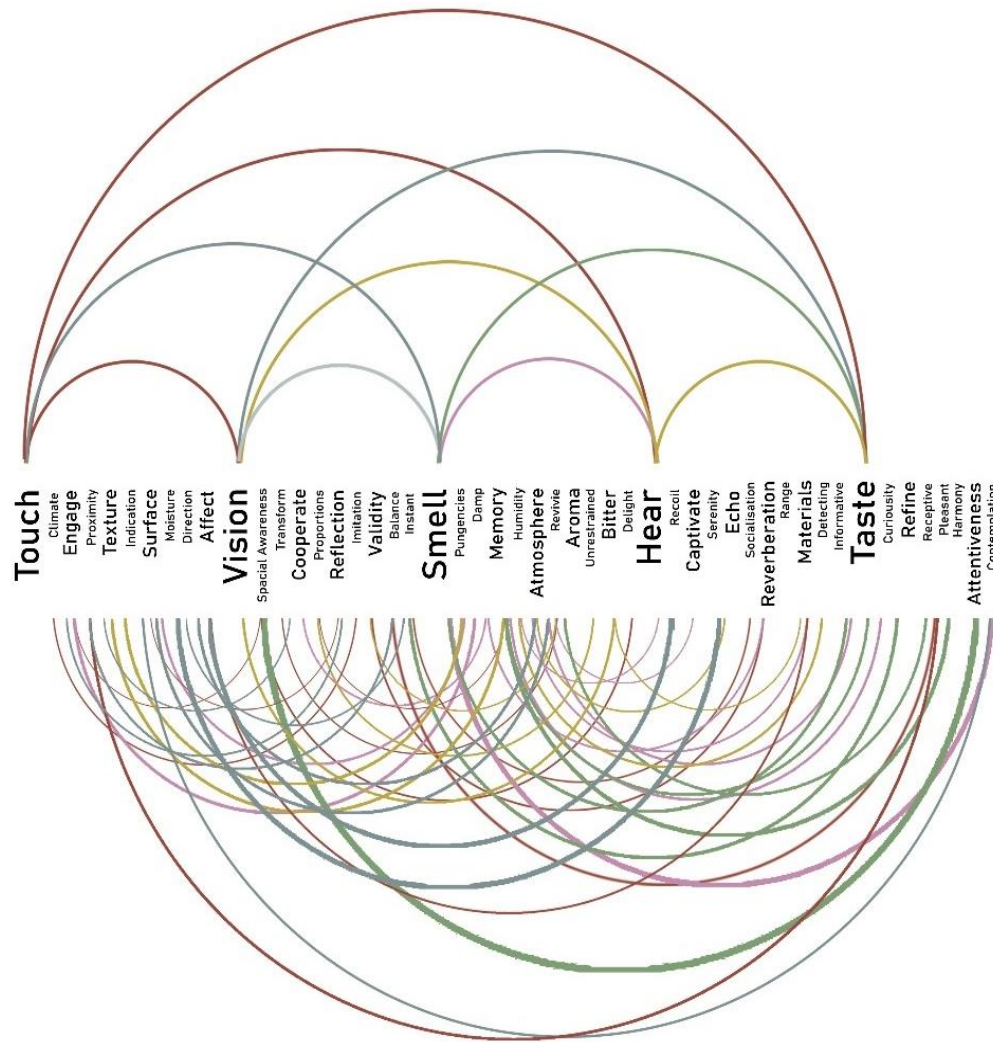


Figure 1.4: Diagram displays the interconnectivity of dominant and subordinate senses, (Zoura, D., edited by Karatas, M., 2021).

## Light

Providing that the designer is aiming to arouse emotion through architectural elements, principles must be followed to address the mind towards relief through a multi-sensory experience and stimulate the soul. (Le Camus de Mezieres, N., 1992, p.71) Examining the interior *Kubbe* (dome) of the Çemberlitaş, Kılıç Ali Paşa and Rixos hammams, for instance, you are filled with sensations of appreciation and esteem, as your senses are heightened and your soul content. There is an ostensible atmospheric component: light – shafts of daylight through openings in the dome, where the banquet of rays envisage a descent of energy, deriving significant analogies between water and light elements of the Bath House, forming a synergy of overwhelming phenomenon of sensation (Plummer, H., 2009, p.182). Aside from light, it is also considered that a hammam’s “... *soundscape creates an ultimate experience...*”, almost divine like (Ergin, N., Interviewed by: Gratien, C., 2016, 04:50). Sinan’s vision incorporated transcendent elements embedded within the design of the *kubbe* - granting admission of light through the dome, domed interiors manipulated the play of light and distributed illuminance in a supernatural manner (Kuban, D., 1987, p.79). This often presented an expression of existential meaning (Goodwin, G., 1977, p.20). To form romantic beams of sunlight, glass bottles would be inserted into the domes of hammams (Goodwin, G., 1977, p.20). As Zumthor declares, the single most prominent quality of architecture that moves a user is atmosphere (Zumthor, P., 2006, p.11). The atmosphere is formed by various factors: the architectural characteristics, concentration of luminescence, and the vapour aloft, which to the observer, may appear as if they are engaged in a divine experience. (Le Camus de Mezieres, N., 1992, p.77) Based on these factors, “... *every building has a certain temperature... So, temperature in this sense is physical, but presumably psychological too. It is in what I see, what I feel, what I touch, even with my feet*” (Zumthor, P., 2006, p.35). Advantageously, enhancing the effect and mood within the hammam is primarily caused by the lighting above, whether it is direct, reflected or borrowed daylight (Le Camus de Mezieres, N., 1992, p.97). The illumination of elements within the Baths, how the light

radiates from above, and where the shadows fall, are designed to fulfil the desired effect of an atmospheric space (Zumthor, P., 2006, p.57). It is common knowledge that “a building that is well lit and well aired... becomes agreeable and cheerful” (Le Camus de Mezieres, N., 1992, p.88). Hammams were consistently designed to follow such mannerism, which is apparent in the case studies displayed.

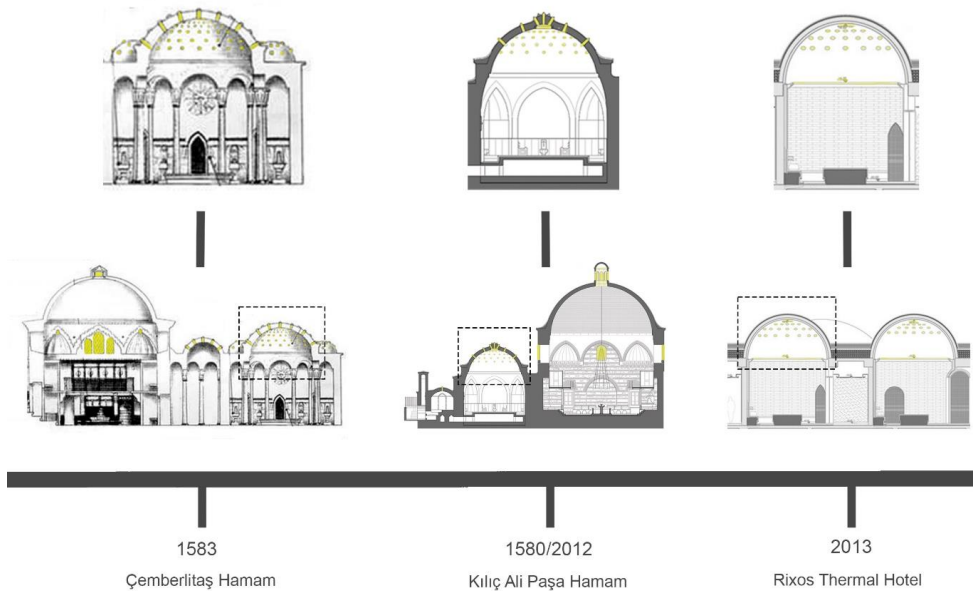


Figure 1.5: Diagram displays the comparison of illuminance across the three case studies, (GAD Architects, 2014, et al., edited by Karatas, M., 2021).

As portrayed along the timeline, despite their eras built, they all share the typology of the dome, influenced by tradition and security of the humble, soft and spherical auditorium diffusing any penetration of light. As touched upon previously, light is an important element in enhancing the senses to entirely comprehend the atmosphere of a space and emphasise variety, entitling a user to a balance of sensations obtainable via the aid of light (Norberg-Schulz, C., 1980, p.69). “The correct illumination intensifies the poetic and emotional impact of a project”, which draws a correlation between the atmosphere and the multi-sensory experience on the observer (Vergães, M., 2007, pg.9).

*“Light determines our perception of architecture. It enables us to appreciate the diverse qualities of the spaces: size, geometric shape, texture, colour... it is*

*perhaps the element with the greatest influence over the atmosphere of a place”* (Vergães, M., 2007, pg.9).

Unequivocally, “... light allows us to see, to know where we ate and what lies around us” (Plummer, H., 2009, p.6). With the application of light in a space, a space becomes more user-friendly and approachable. Thus, enlightening the mood of the user (Karatas, M., Interview with: Durmaz, G., 2021). To aid us navigate the physical world, light shapes what it touches to heighten and enrich visual acuity. From the first principles of architecture, human’s relationship with light has surpassed compulsion, and even the boundaries of objective realism (Plummer, H., 2009, p.6). Light has “... an ethereal presence at the outer limits of material existence with a miraculous capacity to bring things alive at a sensory level...” (Plummer, H., 2009, p.6). Senses and light are synergetic, they go hand-in-hand. A single sense is not entirely augmented without the other. This complementation of one another forms unique experiences in the presence of light that occur when signals from various sensory channels are bound collectively (Neurosci, N. R., 2014). Pioneers including Alvar Aalto, Frank Lloyd Wright, Le Corbusier and Louis Khan, remained fascinated by the peripheral characteristics of architecture. In particular, the manner in which solid volumes could divert awareness to the flowing energy of light the volumes entrapped and displayed. Aalto’s analogies consisted between light and its atmospheric opportunities, studying the spreading lines and how rays of light can be controlled, focused and bent into buildings (Plummer, H., 2009, p.10). Techniques as such would have been commonly used for natural daylight to reach rooms in traditional Turkish baths. Wright additionally shared this vision, stating that “light is the beautifier of the building” (Wright, F. L., 1954, p.33). Le Corbusier directly associated his work with luminescence’s importance to the sensory system by proclaiming that “light is the key to well-being”, with his work strictly composing with light (Plummer, H., 2009, p.10). Of these innovators, Kahn’s beliefs of light could be dubbed poetic to say the least. The master of light deemed illumination to be “a metaphysical presence”, proclaiming that it is the foundation of life (Plummer, H., 2009, p.10).

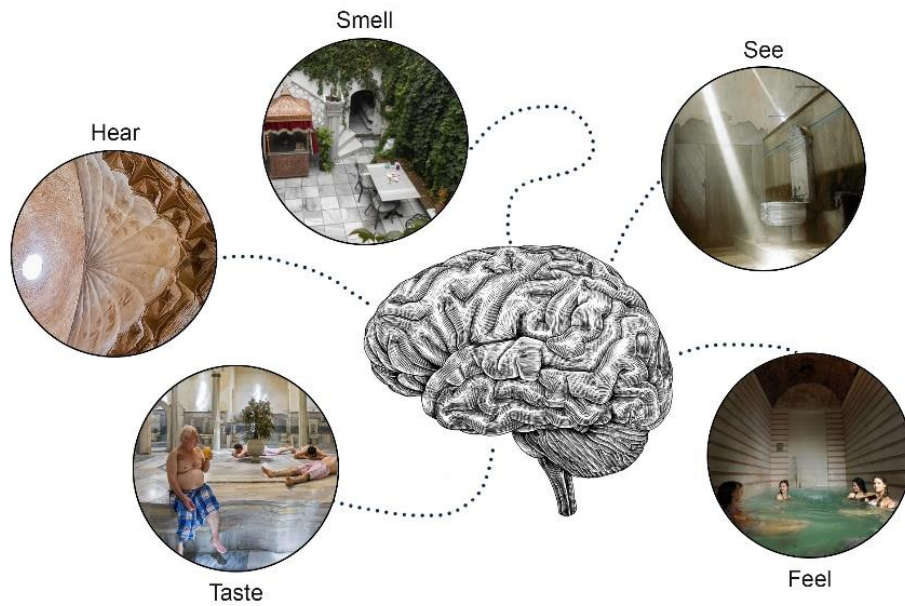


Figure 1.6: Diagram displays the five senses operating collectively within a hammam across depicted activities, (Jurgen, M. et al., n.d., edited by Karatas, M., 2021).

The power light beholds to attract attentiveness and seduce sensations has always had a vital role in successions of space that are gratifying, notable and remarkable (Plummer, H., 2009, p.54). For as long as time, architecture is designed to better grasp and manage the intangible capability of natural light to develop a characteristic ambience to form a spirit of place (Plummer, H., 2009, p.180). In the creation of an overall atmosphere, *“the result is an ambience that bathes every object in one’s field of vision...”* (Plummer, H., 2009, p.180). Thus, architects, such as Kahn and Zumthor are inclined to chasten the voids into which light is poured to achieve virtues of atmosphere, giving prominent weight to the sensations. (Plummer, H., 2009, p.13-180) There are distinctive similarities in the design process to achieve ambience within spaces in the contemporary period and in the era traditional hammams were built, thus amplifying the timeless importance in architecture of engineering light into spaces to generate multi-senses. Applying this notion to the designs of the Turkish bath, Mimar Sinan (research how and what he did to design beautiful light into these hamams). (Arieff, A., & Burkhart, B., 2005, p. 261)

*“Speculations on how something as capricious as natural light can be artistically controlled”* are asserted by Rasmussen, who deems *“the essence of architecture lies in the senses”* (Plummer, H., 2009, p.13). Upon entrance to a space, one may ask themselves, from morning to night, what breadth of atmospheres does the light offer, from day to day, from term to term, and all the way through the year? (Norberg-Schulz, 1980, p.190).

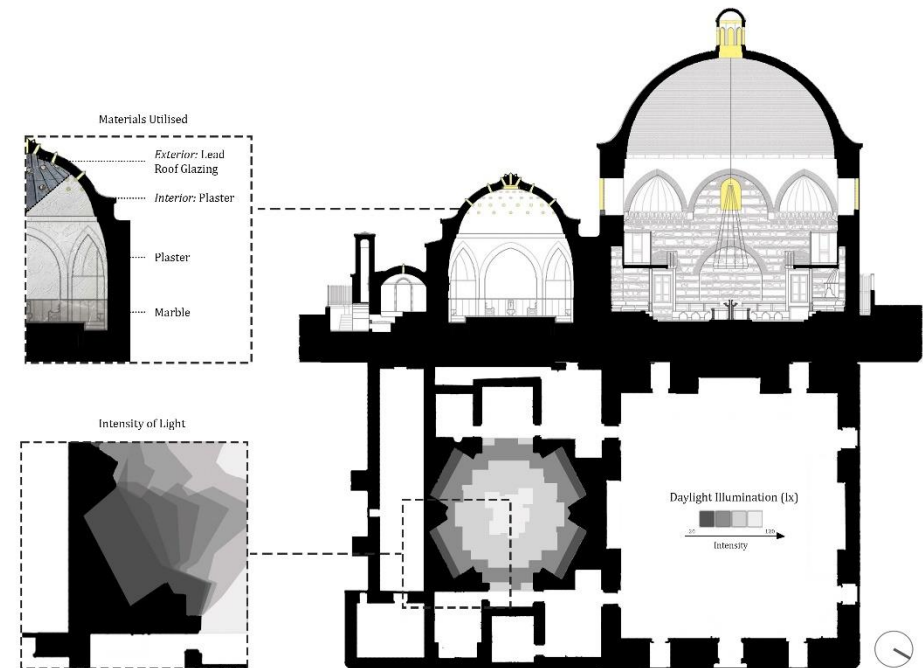


Figure 1.7: Diagram displays the materials & LUX intensity of illumination within Çemberlitaş, specifically a vault, (Bozkurt, C., 2011, edited by Karatas, M., 2021).

## Materials

An important factor of evoking sensations through the nature of architecture is through its core elements: materials. Atmospheric contributions stem from factors such as the raw material through which the light flows; how surfaces reflect light; tones in association to mood; tenor behind the choice of shades and the hues daylight encounters on the texture of facades throughout seasons (Vergâes, M., 2007, pg.9). The human eye can differentiate illustrious textures from mediocre ones just as the ear is able to differentiate the depth of a space, indicating the response sensations have to materials, which



instinctively appear to react (Rasmussen, S, E., 1963, p.164). Considering this approach, fundamentally materials can make or break an atmosphere: *“The use of materials such as bronze, stone and marble evoked a sense of timeless immortality”* (Dovey, K., 2008, p.66). This is achieved through the heavy appearance of such materials against light based on their finish and area of usage. It is vital to remain *“minimalist in style, but rich in meaning...”* (Dovey, K., 2008, p.213), as Mimar Sinan demonstrated by illuminating a *“limited palette of unadorned materials...”* (Plummer, H., 2009, p.180). Innovative transformations of traditional detailed features carried from the past are visible in the work of Gökhan Avcıoğlu: the architect of the pre-1900 case study (Mostafavi, M. and Leatherbarrow, D., 2008, p.98). Such matters draw the attention of the observer to the finer architectural details, for instance polished marble basin, the inscribed portico or the earth walls forming a private *halvet* within the architecture of a Turkish bath. Appreciation for the surface, texture and quality of materials is stimulated by ideal illumination as light accentuates the tectonic characteristics of architectural qualities (Vergâes, M., 2007, p.262). A practice Sinan achieves, and is accentuated by Rasmussen, *“minimal differences in textural character affect us strongly”* as the effortless transition of materials soothe the senses of the user (Rasmussen, S, E., 1963, p.163). As seen through hammams, depending on the light’s illumination, a stone wall can either become a delightful feature or a dull separation (Vergâes, M., 2007, p.262). However, in respect of sensations, while infusions of daylight may certify that the enlightenment in spaces is sufficient, ample and soothing, humans seek more than physical contentment from architecture (Plummer, H., 2009, p.6). Light, which enhances vision and presumptions of touch, should not be the only matters directed in the design of a thermal bath. States of the atmosphere within such spaces pass into the user, as steam through the openings of the *kubbe*, and serenity engulfs your body, creating this phenomenon of sensational bliss (Karatas, M., Interview with: Durmaz, G., 2021). Across the three case studies, although aspects of the materials have evolved with time, they remain the same at core, this ideology

summarised by Ewen, S., (1988): *“style is something to be used up, part of its significance is that it will lose significance”* (Ewen, S., 1988, p.52).

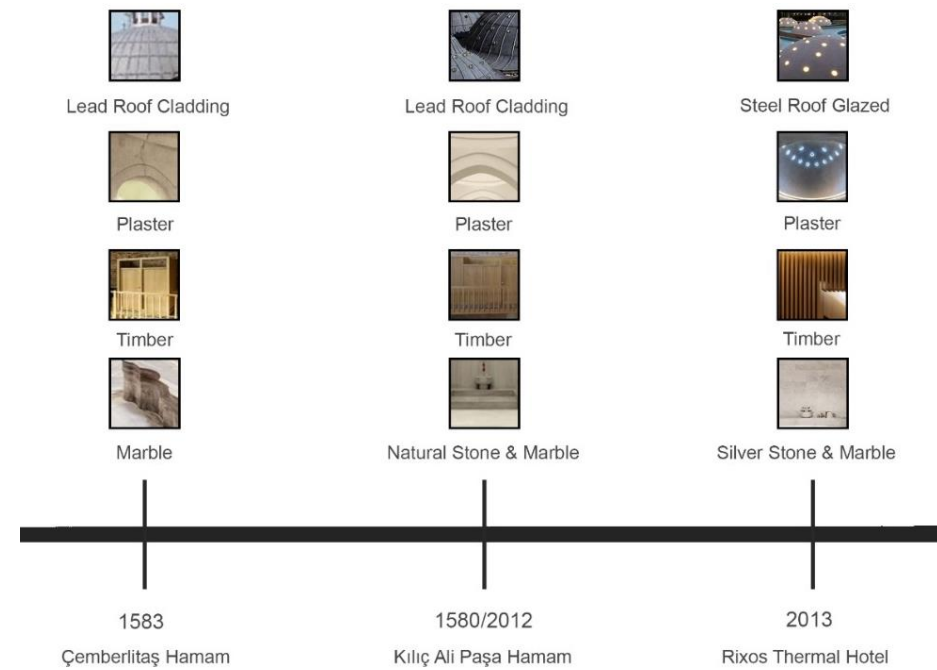


Figure 1.8: Diagram displays a timeline of materials, highlighting similarities amongst centuries, (Bozkurt, C., 2011, edited by Karatas, M., 2021).

---

*“We innately sense buildings, feel their material-haptic qualities, hear their sounds, see their lights, sense their temperature and smells, and so on. Zumthor is at pains not only to address these sensory aspects analytically but also... to use them in his practical work when trying to generate particular atmospheres...”* (Borch. C., 2014).

---

Seemingly so, Zumthor’s views on materials provide back up for architectural qualities hammams hold, where Mimar Sinan would go about *“lighting materials and surfaces systematically and look at the way they [materials] reflect the light...”*, in other words, he *“chose the materials in the knowledge of the way they reflect...”* (Zumthor, P., 2009, p.59), which was a tradition carried over centuries of hammam designs.

## Case Study 01: Çemberlitaş Hamam

The following section is a pre-1900 case study of the Çemberlitaş Hamam in Istanbul, Turkey designed by Mimar Sinan in 1583, commissioned by Nurbanu Sultan during the Ottoman Empire (Karagülle, M, et al., 2011, p.79). Due to the elegance and the pleasing aesthetics created through the abilities to dispense light, Çemberlitaş became the prime focus for the development of future Hammams (Macaraig, N., 2018). This exploration will focus on the features of the hammam, examining its aptness to prompt sensuous notions for bathers in the scheme of thermal baths through the manipulation of light.

Light and shade being the soul of all atmospheric effect, the first methods of lighting the bath shall be considered. The hot bath is illuminated via openings in the dome and vaults. The *“filgözü in the centre of the ceiling, with small holes arranged in rhythmic intervals circling the diameter control the intensity of daylight seeping through”* (Dağtekin, E. E., 2020, p.193)<sup>1</sup>. These hollows of light are covered with glass lanterns, revealing all the grandeur of a meticulous structure (Dağtekin, E. E., 2020, p.194). The purifying atmosphere formed by light of such spaces encourages the usage of hammams. There is clear indication that the convention of hammams in the past was farther prevalent than today, which demonstrates that the method of artificial lighting adopted should not be such, as it impregnates the air with an obnoxious and distasteful ambiance (Allsop, R, O., 2012, p.103). Thus, despite its renovations, Çemberlitaş Hamam has rejected the addition of artificial lighting within its baths to maintain its traditional naturally lit atmosphere (Celik, E., 2018). Nonetheless, throughout the baths, in either natural or artificial lighting, the aim should not be to throw strong light in the eyes of the bather. In the vaults of Çemberlitaş’s hot room where basins sit, light is targeted to throw its rays downwards in a specific small compass for the user to practise their personal

cleanse. Yet, the provided light is diffused to allow for the continuation of a sense of privacy for individuals (Allsop, R, O., 2012, p.104).



Figure 1.9: Photograph displaying directed light designed in Çemberlitaş Hamam, (Memis, B., 2011).

There is a distinctive use of natural spotlighting within Çemberlitaş. Considering the era it was built (1584), Mimar Sinan accordingly established a richness of function, controlled the calmness light emits and the elegance of the luminosity casting off the walls through his mastery of simplicity (Cemberlitas Hamam, 2020). The framing of light entering the thermal bath proves to be a core aspect of the design, positioned to benefit the user in the best way possible. Over centuries, the importance of daylight has been repeatedly emphasised in the course of design. Effecting the ambiance, it has a large impact on an individual’s wellbeing and the functionality of a space. Genius Loci urges the significance of illumination, stating that *“Openings also receive and transmit light, and are therefore main determinants of architectural character”* (Norberg-Schulz, C., 1980, p.67). Regarding the lack of artificial light in the era the hammam was built, the relationship between the exterior and the interior becomes more important, connected by daylight.

<sup>1</sup> (Translated by the author from the original: *“Ilıklık ve sıcaklıkta ise aydınlatma kubbe ve tonozlar üzerine yerleştirilmiş filgözü adı verilen cam fanuslar yardımıyla yapılmaktadır. Camların yerleştirildiği yuvalar yıldız, daire gibi değişik formlarda olmaktadır”*).

*“From the beginnings of architecture... man’s relationship with light has transcended necessity, and even the limits of objective reality”* (Plummer, H., 2009, p.6). In parallel with the era, the sources of light have differed with time, together inferring further emphasis on artificial lighting in modern hammams (Ertuğrul, A., 2009, p.253).

## Case Study 02: Kılıç Ali Paşa Hamam

The following section is a combination of a pre-1900 and post-1900 case study in Istanbul, Turkey designed by Mimar Sinan in 1580 yet completely restored in 2012, originally commissioned by an Ottoman Admiral: Kılıç Ali Paşa (Kilic Ali Pasa Hamami., n.d.). This hammam is not a different ‘kind’ of architecture, except in terms of phenomenology, no two builds are the same nor can they give an identical ambiance due to their differences in scale, location, dome openings, materials, and so forth. Thus, distinct situations require different solutions to fulfil the user’s physical and emotional desires (Norberg-Schulz, C., 1980, p.5). This evaluation will explore the phenomenology of hammams, with a focus on Kilic Ali Pasa Hamam.

The *genius loci* is recognised within hammams and their *spirit of place* maintains a distinct character, which defines a space. It is a concept of spirit giving life to places and people from origin to demise and determines their soul, essence or principle (Langer, M, M., 1989, p.XV). When the consensus has accepted that a place withholds a certain character or atmosphere, that space becomes a *“qualitative, total, phenomenon”* (Norberg-Schulz, C., 1980, p.8). Boundaries of a hammam, the marble floor, plastered walls, vaulted chambers and domed ceiling are all structurally similar to a landscape, consisting of a ground, horizon and sky (Norberg-Schulz, C., 1980, p.13). Thus, the *genius loci* of a place allow the user to feel comfort in the instinctive resemblance to nature. The transmit of light is received through openings, which allow for architectural character to dominate a space. Local character is visualised through material choice and colour. Natural stone, marble and timber contribute decisively to atmospheric characterisation, expressing the building’s presence (Norberg-Schulz, C., 1980, p.67).

Despite the burden of historical forces, the place preserved its distinct identity through the recent restoration. Maintaining its historic quality, the hammam preserved the *genius loci* under the pressure of contemporary functional demands. The spaces continue to give *“aesthetic satisfaction to the human soul”*, as users continue to dwell poetically in a space which provides us our own identity (Norberg-Schulz, C., 1980, p.194-202). This satisfactory fulfilment is achieved through acknowledgment of a human’s multi-sensory abilities.



Figure 1.10: Diagram displaying the resemblance to landscape and genius loci of Kilic Ali Pasa: before, during and after restoration. (Bozkurt, C., 2011, edited by Karatas, M., 2021).

## Case Study 03: Rixos Thermal Hotel

The following section is a post-1900 case study of the Rixos hammam in Eskişehir, Turkey designed by Gökhan Avcıoğlu (GAD Architects) and built in 2013 (Karatas, M., Email Correspondence: Uçar, G., 2021). Inspired by the city’s former civilisations, the project is highly inspired by the Ottoman Empire and Eskişehir’s thermal water resources (GAD Architects, 2014). Architecturally, there are connections parallel to the hammams constructed centuries ago, which draw direct similarities, such as the techniques used for the diffusion and direction of light alongside matters concerning choice of materiality. The following content will assess such characteristics and techniques to analyse the sensory outcome of spaces constructed in modern-day era equated to antiquated Turkish baths.



Maintaining conventional features of hammams within new builds can form “... *nostalgia for the past*” (Coser, L, A., 1992, p.49). For instance, material used within Rixos is natural stone to form an innate ambiance, similar of those designed by Mimar Sinan, since the hammam’s materials are timeless, “*buildings persist in time*” (Mostafavi, M. and Leatherbarrow, D., 2008, p.5). The use of different stones in various textures and tones differs perceptions of light, affecting the outcome of an individual’s mood based on their sensory experience within such spaces (GAD Architects, 2014). The use of marble within the Rixos wet spaces was influence drawn from traditional Turkish bath culture (Karatas, M., Email Correspondence: Uçar, G., 2021). Similarly, the domes placed within the pools act as roof-lights to allow natural daylight within. Such diffused light penetrating the spa creates the illusion of a conventional hammam under a dome, forming the ambiance a Turkish bathhouse does (GAD Architects, 2014). Ensuing this assumption, it’s assumed that the multi-sensory experience is predictably similar too, due to such resemblances of a customary hammam. “*Rooms with clear forms and few visual stimuli exude a quiet and focussed atmosphere*”, which the Rixos demonstrates as well as the remaining two case studies do (Karcher, A., et al., 2009, p.184).

## Shadow

In the art of hammam, it has been concluded to carry out a multi-sensory experience within an atmospheric bathing environment, light plays the leading role in accomplishing it. Although “*light is the unquestioned protagonist... we tend to forget the role of shadow*”, hence this notion begs to differ an alternate perspective (Pallasmaa, J., 2016). Significance of shadow: a concept conceded by many architects including Kahn: “*even a room which must be dark needs at least a crack of light to know how dark it is*” (RIBA, 2014).

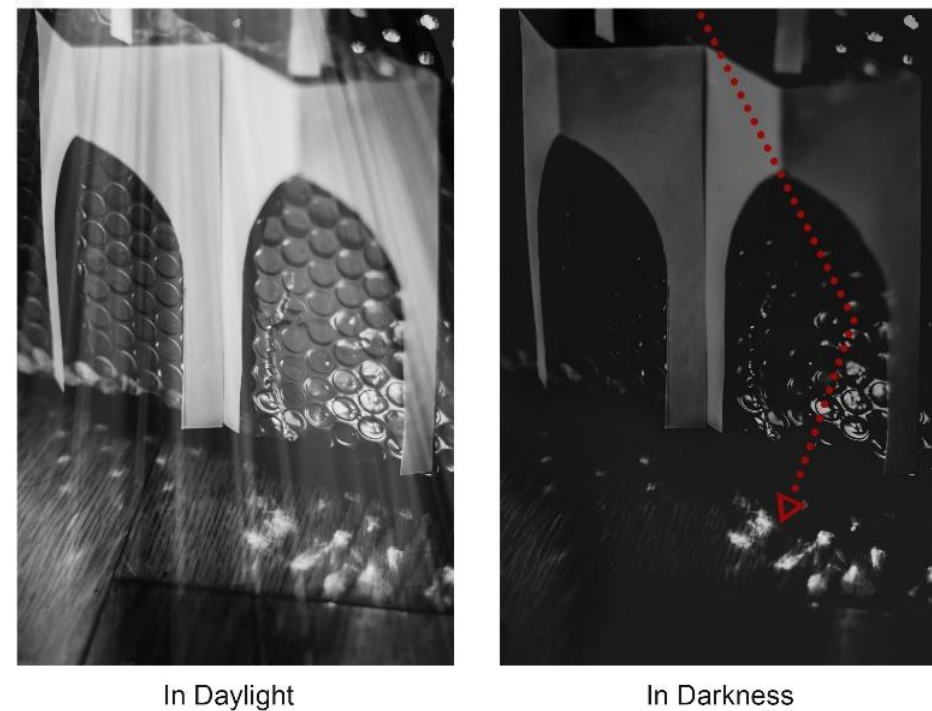


Figure 1.11: Diagram displaying how light and shadow define architecture: even through darkness, (Karatas, M., 2021).

The closure felt under the dome of a bath appears as though darkness is hollowed out of the light: “... as if light were a new mass seeping in” through the accumulation of steam rising with the heat into the *kubbe*, forming the typical atmosphere of a hammam (Zumthor, P., 2006, p.59). Such beams of daylight illuminate the space, penetrating the dark as a cosmic energy (Plummer, H., 2009, p.7). A hammam comprising of appropriate illumination must consider darkness and shadows as these elements are fundamental components in establishing the appropriate atmosphere. To attain this multi-sensory cleanse, the balance of light penetrating darkness to form the soft, dim ambiance is necessary for the equilibrium and well-being of people. In the words of Zumthor, “*How much light does man need, and how much darkness?*” (Vergães, M., 2007, p.10). Bachelard indicates in *The Poetics of Space* through memoirs that light is continually fending darkness, whether it is the sun in the day or the moon in the night (Bachelard, G., 1994, p.19). This interaction of shadow and light unites the architectural space through the subtleties of the natural world, change of seasons and hours of the day, giving spaces their



character, sense of scale, rhythm and intimacy (Pallasmaa, J., 2016). Thus, how can individuals retain from experiencing multi-sensory emotions in such an atmosphere all the while no two visits to a hammam are the same experience as the one before? An atmosphere is more enjoyable when light is present to accompany you. It enhances a phenomenon of senses: the appearance of imprints of light on the surfaces and the warmth rays of sun allow one to feel on their skin (Tsikaloudaki, K. et al., 2012, p.47).

### Intensity of Light + Hues

Light being the strongest conditioner of the ambiance within a hammam, every distinct space has its distinguished light, and this intensity of illumination is the quality that directly influences our mood. Calibrated to the seasonal and daily cycles of light, our senses are attuned with the atmospheric outcomes of such cycles (Pallasmaa, J., 2016). A space displays one visage of intensity to a user in summer, and a different visage to them arriving in winter (Calvino, I., 1997, p.17). The role of such differing intensities affects the outcome of one's mood, the overall atmosphere of a space and the desire for social interaction. Plummer delineates, *"the illumination of an Ottoman hammam was handles to produce a mood of calm, where emotions are reduced and tensions resolved..."* (Plummer, H., 2009, p.9). Granted that the combination of brilliant and dark areas can produce stirring contrasts and develop an atmosphere, the strong difference in intensities can make an individual feel uneasy, as opposed to the relief a user intends to feel in a hammam (Karcher A., et al., 2009, p.15). Within Turkish baths, the natural source of light is zenithal, thus *"theatrical and easy to manipulate"* (Vergães, M., 2007, p.86). When natural light flows into a space from above, daylight deems intensified, directing light and augmenting intensity, producing well defined dark shadows. This generates introverted ambiances. However, when the zenithal light is circular and situated at the highest point of the dome surrounded by smaller openings, the type of light emitting from above gives a certain atmosphere (Vergães, M., 2007, p.86). Rather than a large singular oculus, the *"diffused light gives more blurred shadows in gentle grey tones"*, forming 'half-light' instead of total

darkness in the vaults, *halvets* and pools of the hammam (Vergães, M., 2007, p.128). This technique is clearly used throughout all designs of hammam's, certainly among the three case-studies.

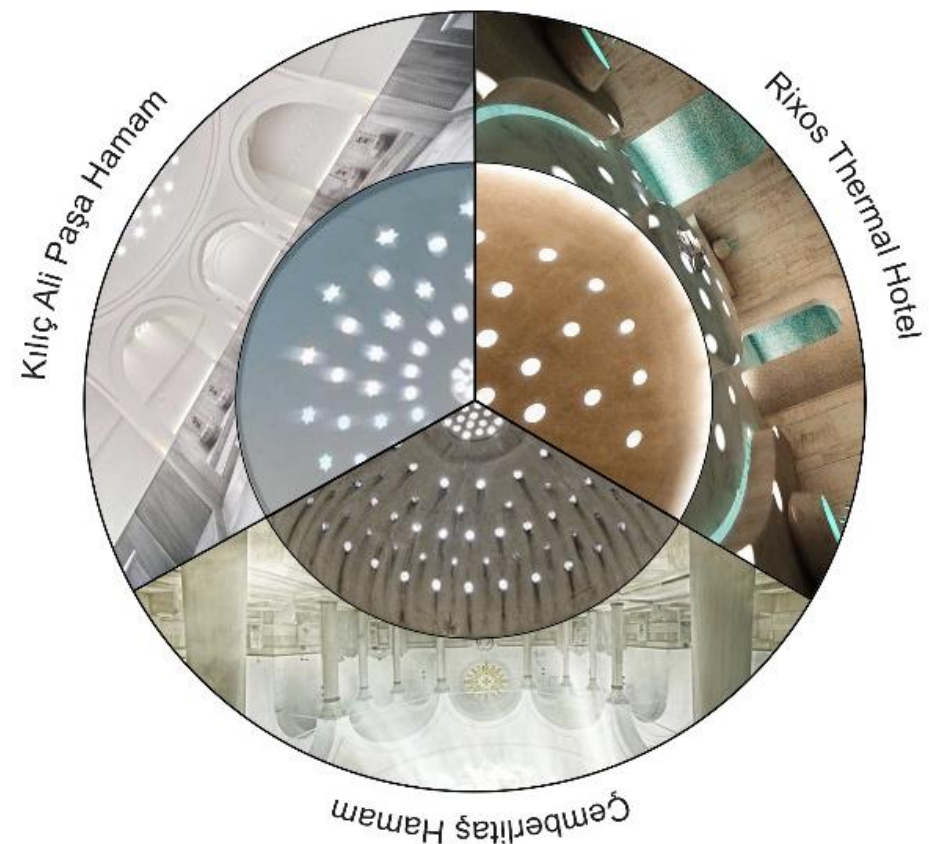


Figure 1.12: Diagram displaying similar intensities of light piercing through the three domes of case studies with a portrayal of each atmosphere, (GAD Architects, 2014, et al., edited by Karatas, M., 2021).

It is not appropriate for a space as such to infuse with brilliant illumination, quite the contrary, a toned and soft light should pervade the whole to allow for privacy and ritual cleansing in a manner the body can best form a sensory-bond with (Allsop, R, O., 2012, p.103). As seen in the collection of case studies, spatial richness is heightened by the elaborate entries of light through the *kubbe*, bringing expressivity and poetry to architecture through the focussed yet dispersed concentration of light (Vergães, M., 2007, p.86).

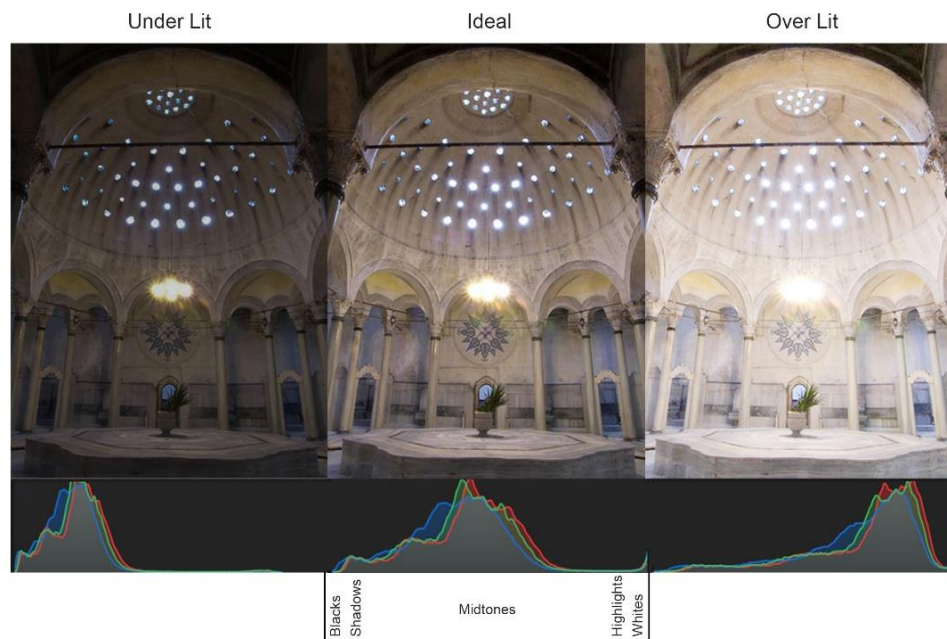


Figure 1.13: Diagram displaying light intensities over three different scenarios: under lit, ideal, over-lit, (Cemberlitas Hamami, n.d., edited by Karatas, M., 2021).

Artists such as James Turrell generate elusive phenomena in empty spaces, with intentions to grant the viewer the opportunity to shape their own experience. Through use of colour filters and manipulation of light, an atmosphere can immediately differ. Hues along the spectrum hold different connotations, associated to various moods. You can manipulate how an individual can feel. As displayed, each 'bottle' of light *"behaves as a kind of periscope with its own allotment of sun..."* (Plummer, H., 2009, p.44).



Figure 1.14: Diagram displaying the effect of indirect and direct light within Rixos Spa hammam room, (GAD Architects, 2014, et al., edited by Karatas, M., 2021).

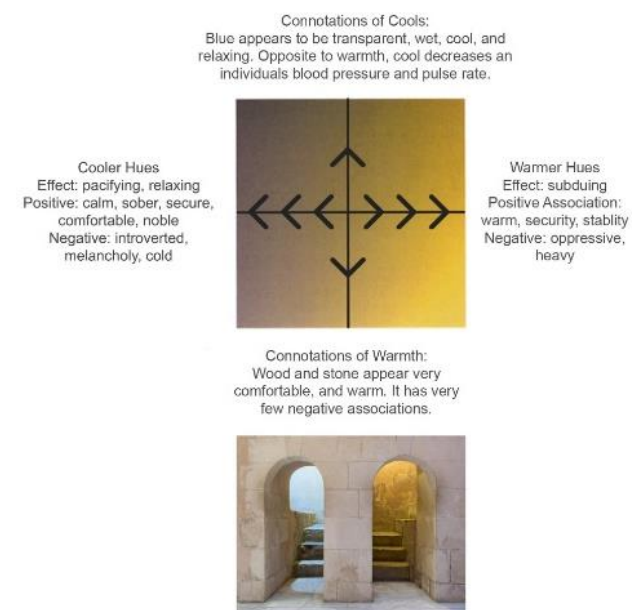
The dynamic entities of natural light form unique human responses, where changes in tones of light and on surfaces depict moods (Moursund, Earl. And Saparowitz, Lawrence., 2018, p.38).

---

*"Just think of the joy and revitalising energy of the morning light, or the romantic but weary light of the evening, the cool light of a moonlit night, and the emotive hues of the light of sunrise and sunset" (Pallasmaa, J., 2016).*

---

The association between intensity of light and ambiance to allow for privacy within various spaces is an architectural element with great foundations within the design of Turkish baths (Yilmaz, Ö., 1981, p.213-223). Within hammams, it is notable that the central illuminance *"... of the hot chambers is bright, while the surround areas remain much darker"*, accentuating the significance of shades and concentration of light (Tsikaloudaki, K. et al, 2012, p.53). The warm-hued moderate illumination dispersed and diffused into the hot chamber facilitates users into a state of relaxation. When examined, there appears to be symmetry in the transitions between such differing circumstances of spaces: hot space and lighter illuminance, cold space and darker illuminance with the warm room offering a metamorphosis between the two extremities, reflecting an intermediate-point condition (Sibley, M., 2018, p.17).



*Figure 1.15: Diagram displaying connotations of hues, associated to hammams, (EdAlawy, K., n.d., edited by Karatas, M., 2021).*

## Conclusion

In summary, this thesis explores the role of light within architecture of Turkish baths affecting the formation of atmosphere. With a focus on the role of illumination entering spaces, the impact it has on multi-sensorial experience is evident and further displayed through analytic diagrammatical work. Traditional hammams designed by Mimar Sinan emphasise the importance of architectural elements, which form a framework that interprets light through reflection, diffusion and direction for instance. The importance of historical hammams are carried through centuries and restored to appeal in the same manner or designed using great similarities. GAD Architects considered the essential elements of a thermal bath design, as examined across the three chosen case studies. The evaluation of Cemberlitas, Kilic Ali Pasa and Rixos hammams alongside interpretations of interviewees concludes that light does indeed have a direct impact on the creation of atmospheres, undoubtedly affecting the multisensorial experience of the user, established by various factors outlined throughout this thesis.

It is important to understand that the atmosphere of a Turkish bath is a consequence of the light consistency, illumination and variation of tone, as outlined in the exploration of the matter. Additionally, the manner in which architectural elements unite to one another for the establishment of multi-sensorial connections with spaces influenced by light, is what permits individuals to fulfil a wholly experience in the thermal baths. This graver sensuous feeling is emphasised through heritage and tradition of thermal baths, insinuating the benefits of atmospheric cleanses. The individual attending a Turkish bath ought to feel an ultimate bond with the space and understand the environment, spiritually and physically. The evaluation over the course of this thesis has recognised and demonstrated the notion that light holds this power over such spaces, inevitably forming an atmosphere of its own to enhance the individual's multi-sensory experience.

The association of senses experienced amongst Turkish baths is accentuated through the case-studies presented, highlighting elements such as the influences of light. Their direct correlations demonstrate that the presence of an established atmosphere is the core component for achieving a multi-sensory experience. The articulation of an architectural atmosphere is attained through a variety of factors: history, materiality, scale of chambers, light intensity, impact of hues, shadows formed by light, phenomenology and so forth. The paper discovers such elements as prominent factors, which strongly contribute towards the triumph of a cathartic atmosphere. All factors are required to transform a conventional thermal bath into a space that sustains a wholly experience, enabling balance among all five senses of a human.

## Glossary of Terms

Camegah: Lounge room of a hammam, at the entrance.

Filgözü: The central opening of light in the Dome of a Hammam.

Göbektaş / Naval stone: A central heated platform to lie on, often to sweat.

Halvet: An enclosed, private bathing cubicle.

Hamam/Hammam: A public or private bath for cleansing.

Kubbe: Dome.

Kurna: A marble water basin in the bathing place. A sink-like feature.

Kulhan: Boiler room.

Mimar: Architect.

## List of Figures

**Figure 1.1:** Cemberlitas Hamam., n.d., Çemberlitaş Hamam, [photograph], Istanbul

**Figure 1.2:** Karatas, M., 2021, Diagram displays the human requirements to achieve a multi-sensory experience, [diagram], Nottingham

**Figure 1.3:** Bozkurt, C., 2011, edited by Karatas, M., 2021, Diagram displays user's senses enhanced in particular spaces in accordance with intensity of temperature (experience analysed off hammam's TripAdvisor), [diagram], Nottingham

**Figure 1.4:** Zoura, D., n.d., edited by Karatas, M., 2021, Diagram displays the interconnectivity of dominant and subordinate senses, [diagram], Nottingham

**Figure 1.5:** GAD Architects, 2014, et al., edited by Karatas, M., 2021, Diagram displays the comparison of illuminance across the three case studies, [diagram], Nottingham

**Figure 1.6:** Jurgen, M. et al., n.d., edited by Karatas, M., 2021, Diagram displays the five senses operating collectively within a hammam across depicted activities, [diagram], Nottingham

**Figure 1.7:** Bozkurt, C., 2011, edited by Karatas, M., 2021, Diagram displays the materials & LUX intensity of illumination within Çemberlitaş, specifically a vault, [diagram], Nottingham

**Figure 1.8:** Bozkurt, C., 2011, edited by Karatas, M., 2021, Diagram displays a timeline of materials, highlighting similarities amongst centuries, [diagram], Nottingham

**Figure 1.9:** Memis, B., n.d., Photograph displaying directed light designed in Çemberlitaş Hamam, [photograph], Istanbul

**Figure 1.10:** Bozkurt, C., 2011, edited by Karatas, M., 2021, Diagram displaying the resemblance to landscape and genius loci of Kilic Ali Pasa: before, during and after restoration, [diagram], Nottingham

**Figure 1.11:** Karatas, M., 2021, Diagram displaying how light and shadow define architecture: even through darkness, [diagram], Nottingham

**Figure 1.12:** GAD Architects, 2014, et al., edited by Karatas, M., 2021, Diagram displaying similar intensities of light piercing through the three domes of case studies with a portrayal of each atmosphere, [diagram], Nottingham

**Figure 1.13:** Cemberlitas Hamami, 2011, edited by Karatas, M., 2021, Diagram displaying light intensities over three different scenarios: under lit, ideal, over-lit, [diagram], Nottingham

**Figure 1.14:** GAD Architects, 2014, et al., edited by Karatas, M., 2021, Diagram displaying the effect of indirect and direct light within Rixos Spa hammam room, [diagram], Nottingham

**Figure 1.15:** EdAlawy, K., n.d., edited by Karatas, M., 2021, Diagram displaying connotations of hues, associated to hammams, [diagram], Nottingham

## Bibliography

### Primary Research

Karatas, M., (2021), *Istanbul Interior Architect: Conversation with Gülistan Durmaz*, England, 06 January 2021

Karatas, M., ([mugekaratas14@gmail.com](mailto:mugekaratas14@gmail.com)), (2021), *Mimar Öğrencisi (Architecture Student)*, Email to: Gizem Uçar. ([gizem@gadfoundation.com](mailto:gizem@gadfoundation.com)), 05 February 2021

### Secondary Research: Books, Journal Articles, Interview, Web Sources

Allsop, R. O., (2012), *The Turkish Bath: Its Design and Construction*, n.p., Tradition Classics

Arief, A., & Burkhart, B., (2005), *Spa*, London, Taschen

Bachelard, G., (1994), *The Poetics of Space*, Massachusetts, Beacon Press

Berger, J., (1992), *Keeping a Rendezvous*, Harmondsworth, Penguin

Borch, C., (2014), *Architectural Atmospheres: On The Experience and Politics of Architecture*, Basel, Birkhäuser, [Online PDF], ProQuest Ebook Central

Calvino, I., (1997), *Invisible Cities*, London, Vintage Classics

Celik, E., (2018), *Türk Hamam Mimarisinin Yapısal ve Mekânsal Özellikleri [Structural and Spatial Characteristics of Turkish Bath Architecture]*, Istanbul, Kent Akademisi

Cemberlitas Hamam, (2020), *History*, [Online], Available at: <https://www.cemberlitashamami.com/tarihce/>, Accessed [30/11/2020]



**Coser, L. A.**, 1992, *On Collective Memory*, Chicago, The University of Chicago Press

**Dağtekin, E. E.**, (2020), *Gaziantep Geleneksel Hamamlarının Belgelenmesi Ve Koruma Önerileri [Documentation of Gaziantep Traditional Baths and Protection Recommendations]*, Ankara, T.C. Vakıflar Genel Müdürlüğü.

**Dovey, K.**, (2008), *Framing Places: Mediating Power in Built Form*, Routledge, Oxford

**Ergin, N.**, **Interviewed by: Gratien, C.**, *The Ottoman Empire's Sonic Past with Nina Ergin*, 2016, Ottoman History [Podcast], Available At: <https://soundcloud.com/ottoman-history-podcast/the-ottoman-empire-sonic-past-nina-ergin>, [Accessed 20/02/2021]

**Ertuğrul, A.**, (2009), *Hamam Yapıları ve Literatürü [The Baths: The Structure and A Bibliography]*, Turkey, Bilim ve Sanat Vakfı

**Ewen, S.**, (1988), *All Consuming Images*, New York, Basic Books

**GAD Architects**, (2014), NATURA- Eskisehir Rixos, [Online], Available at: <https://www.gadarchitecture.com/en/naturaeskisehir-rixos-october---november14-en>, Accessed [22/02/2021]

**Goodwin, G.**, (1977), *Islamic Architecture: Ottoman Turkey*, London, Scorpion Publications LTD

**Heywood, I.**, (2017), *Sensory Arts and Design*, London, Bloomsbury Academic

**Karagülle, M. et al.**, (2011), *An Observation On Health Effects Of Hamam (Turkish Bath)*, France, Press Therm Climat

**Karcher, A. et al.**, (2009), *Light Perspectives - Between Culture and Technology: Light, Space, Perspectives*, Germany, ERCO

**Kilic Ali Pasa.**, (n.d.), *About*, [Online], Available at: <https://kilicalipasahamami.com/>, Accessed [25/02/2021]

**Kuban, D.**, (1987), *The Style of Sinan's Domed Structures: In Muqarnas IV: An Annual on Islamic Art and Architecture*, Leiden, Brill

**Langer, M. M.**, (1989), *Merleau-Ponty's Phenomenology of Perception*, London, The Macmillan Press LTD

**Le Camus de Mezieres, N.**, (1992), *The Genius of Architecture; or, The Analogy of That Art With Our Sensations*, USA, The Getty Center

**Macaraig, N.**, (2018), *Cemberlitas Hamami in Istanbul: The Biographical Memoir of a Turkish Bath (Edinburgh Studies on the Ottoman Empire)*, n.p., Edinburgh University Press

**Merleau-Ponty, M.**, (1978), *Phenomenology of Perception*, London, Routledge & Kegan Paul

**Mostafavi, M. and Leatherbarrow, D.**, (2008), *On Weathering: The Life of Buildings in Time*, The MIT Press: Cambridge, London

**Moursund, Earl. And Saparowitz, Lawrence.**, (2018), *Spatial Compositions*, USA, University of Oregon Department of Architecture

**Norberg-Schulz, C.**, (1980), *Genius Loci: Towards a Phenomenology of Architecture*, London, Academy Editions

**Nurosci, N. R.**, 2014, *Development Of Multisensory Integration From The Perspective Of The Individual Neuron*, USA, US National Library of Medicine: National Institution of Health, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4215474/> [online], Accessed [20/12/2020]

**Pallasmaa, J.**, (2012), *The Eyes of the Skin*, West Sussex, John Wiley & Sons Ltd

**Pallasmaa, J.**, (2014), *Space, Place and Atmosphere. Emotion and Peripheral Perception in Architectural Experience*, Finland, University of Helsinki

**Pallasmaa, J.**, (2016), *Dwelling In Light: Tactile, Emotive And Life Enhancing Light*, [Online], Available At: <https://www.daylightandarchitecture.com/articles/dwelling-in-light>, Daylight and Architecture Magazine [Issue 26], [Accessed 26/01/2021]

**Plummer, H.**, (1987), *Poetics of Light A+U Architecture and Urbanism*, Tokyo, Extra Edition

**Plummer, H.**, (2009), *The Architecture of Natural Light*, London, Thames and Hudson

**Rasmussen, S. E.**, (1962), *Experiencing Architecture*, Massachusetts Institute of technology, USA

**Reiter, S., and Herde, A. D.**, (2003), *Qualitative And Quantitative Criteria For Comfortable Urban Public Spaces*, [PDF], Available At: <https://www.researchgate.net/publication/277040408>, [Accessed 19/02/2021]

**RIBAJ**, (2014), *Kimbell Art Museum Extension – Texas*, [Online], <https://www.ribaj.com/products/kimbell-art-museum-extension-texas>, Accessed [30/01/2021]

**Seamon, D.**, (1993), *Dwelling, Seeing and Designing: Toward a Phenomenological Ecology*, Albany, State University of New York Press

**Sibley, M.**, (2018), *Let There Be Light! Investigating Vernacular Daylighting in Moroccan Heritage Hammams for Rehabilitation*, Benchmarking and Energy Saving, Sheffield, Sheffield School of Architecture

**Soesman, A.**, (1998), *Our Twelve Senses: Wellsprings of the Soul*, Stroud, Hawthorn Press

**Tsikalousaki, K. et al.**, (2012), *Daylighting in Historic Bathhouses: The Case Of Ottoman Hamams*, Thessaloniki, n.p.

**Turkish Cultural Foundation**, n.d. *Turkish Baths (Hamam)*, [Online], Available At: <http://www.turkishculture.org/architecture/turkish-bath-96.htm> [Accessed 26/01/2021]

**Vergâes, M.**, (2007), *Light in Architecture*, Belgium, Tectum Publishers

**Wright, F. L.**, (1954), *The Natural House*, New York, Horizon Press

**Yilmaz, Ö.**, 1981, *Eski Türk Hamamlarında Su Tesisatı İle İlgili Bazı Detaylar*, İstanbul, İTÜ

**Zumthor, P.**, (2006), *Atmospheres: Architectural Environments – Surrounding Objects*, Basel, Birkhauser

**Zoura, D.**, 2015, *Architecture & The Senses*, USA, Vasquez Marshall Architects [architectural website]

Appendix A: Ethics Approval

Muge Karatas (username: N0795843)



Attempt 1

Written: 14 October, 2020 5:13 PM - 01 March, 2021 9:48 AM

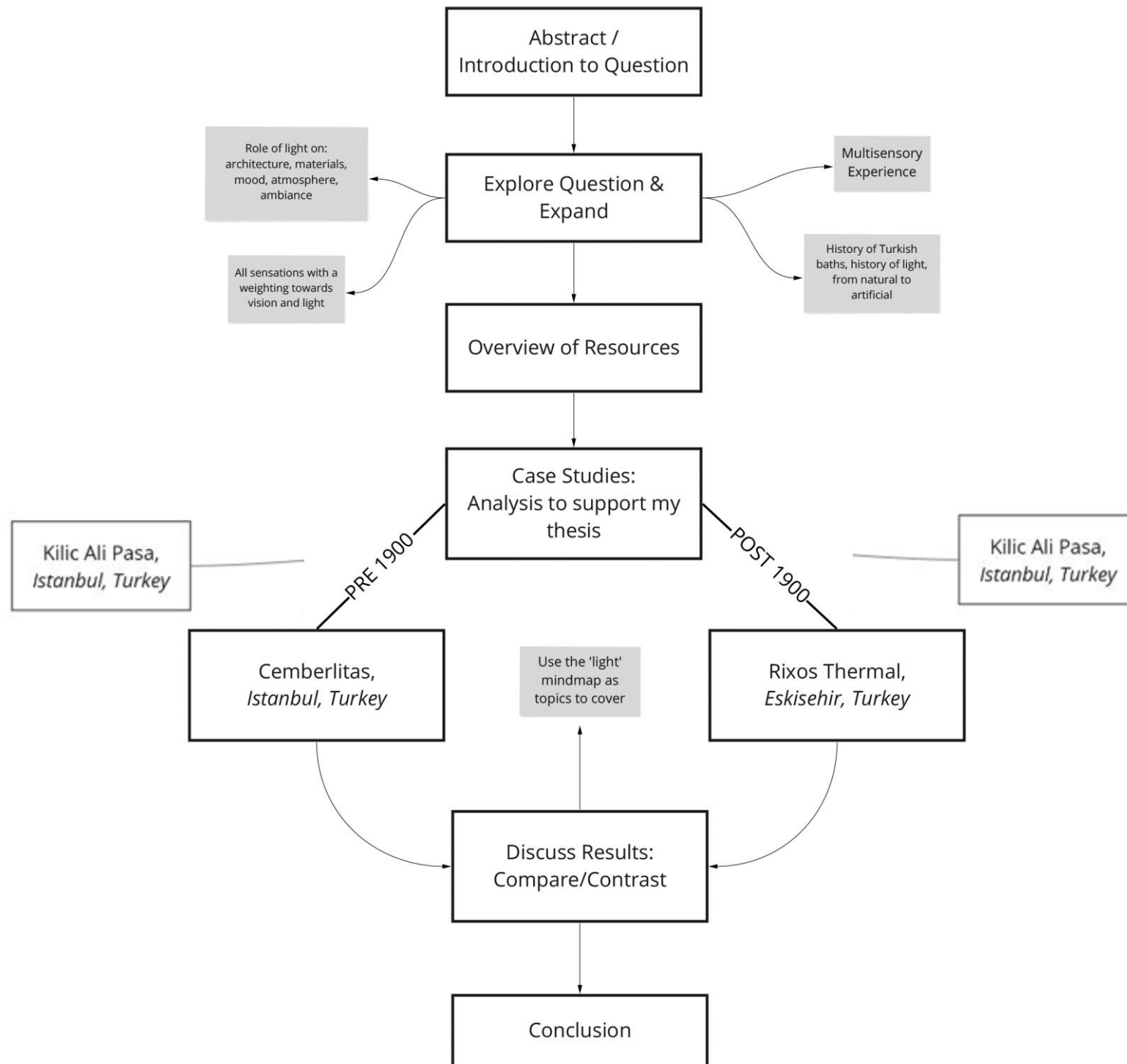
Submission View

released: 06 September, 2019 3:44 PM

Congratulations, your project has obtained ethical approval!

	<p>Name (module leader/tutor): Guillermo Garma</p> <p>Signature (module leader/tutor): </p> <p>Date: 25 Feb 2021</p>
11.3	<p><b>To be completed by the student:</b></p> <p>I have read the Student Research and Practice Ethics Fact Sheet and confirm that I have completed this application accurately, fully and frankly. My module leader/tutor has completed sections 11.1 and 11.2, above.</p> <p>Name (applicant): <b>Muge Cemile Karatas</b></p> <p>Signature (applicant): </p> <p>Date: <b>24 February, 2021</b></p>

## Appendix B: Structural Diagram



## Appendix C: Interview Notes

### Appendix C: Research Project Interview with Gülistan Durmaz

06 January 2021

*Gülistan Durmaz is an interior architect at Estetik Decor Istanbul and co-founder of NevMimarlik. As a Turkish citizen who frequently attends Turkish baths, an informal conversation was conducted between her and I. Completed below is the conversation translated from Turkish to English by me, the author.*

#### ***Why do you go to a hammam?***

There's a deep sense of cleanness, peacefulness... I feel the same happiness after I've been to the hammam as I do after a workout at gym. There's a release of serotonin during and after.

In my views, going to the hammam can be deemed as a social activity more than anything else. Social interaction is

There's a difference essence in a hammam. As soon as you enter, the sound of the waters is like therapy. It gives you happiness. It always reminds me: as soon as I enter, I look forward to the feeling of how I will feel after my hammam. Knowing that I will be clean, I look forward to a coffee, tea or sparkling water afterwards in the Avlu, where you cool.

Traditionally, men and women bathe separately. For example, Tuesdays 9am-4pm women's, 5-10pm for men. Different days for women different for men. There are schedules. This may vary based on your town, city. Some have men women separate and can take them in at any time.

Some hotels have thermal baths. In the day, its public. In the evenings, its open just to the hotel clients.

When you enter a hammam, first you go to a cabin and change. In a cabin, there is a bed, and a place for you to leave your items. For valuables, you hand them to the receptionist, and she places it in a shelf with a key, that only you have access to.

#### ***Route through a hammam?***

Where the marble is, this is a room with kurnas. You wash yourself, have your kese (peels your dead skin), someone washes you, chat with people, gossip, socialise. You can take breaks into the cold room 'sogukluk'.

After, there is a corridor, with smaller rooms... these are semi-private rooms. These are dim lit rooms, small archway entrances not doors that close. The different spaces make me feel different level of calm.

The hot room is always the biggest room, it is brighter than others. Dome is higher and more openings let light in through hot steam. Even though you are more on edge because of the heat, the spaciousness of the chamber calculates for it.

There are specific people, the workers, named tellak. These individuals, for extra money, can wash you, massage you, you do not even have to lift a finger.

Food can be served, fruit bowls, whether it be breakfast or brunch.

After you've cooled down in the cold room, you can enter back into the hot room to clean yourself up one final time, and then with you Tas you can tap the Kurna and it is a method of calling a tellak. You can ask them to bring your towels and so on.

#### ***Why do you find hammams so relaxing?***

The water in hammams. The minerals in the thermal water are high, the atmosphere of it is different. It smells different, feels heavier, its drier against sensitive skin but a sense of bodily cleanse captures you.