INTERNATIONAL ASSOCIATION OF SILKROAD UNIVERSITIES

Archi-Cultural Interactions through the Silkroad

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INTERNATIONAL ASSOCIATION OF SILKROAD UNIVERSITIES (iaSU)

"An educational association targeted on academic, economic and technologic development of nations in the area through closer relations and cooperation between the universities located on and near the Silkroad, inspired by the socio-economic influence and cultural heritage of Silkroad across the Asian Continent as it used to be."

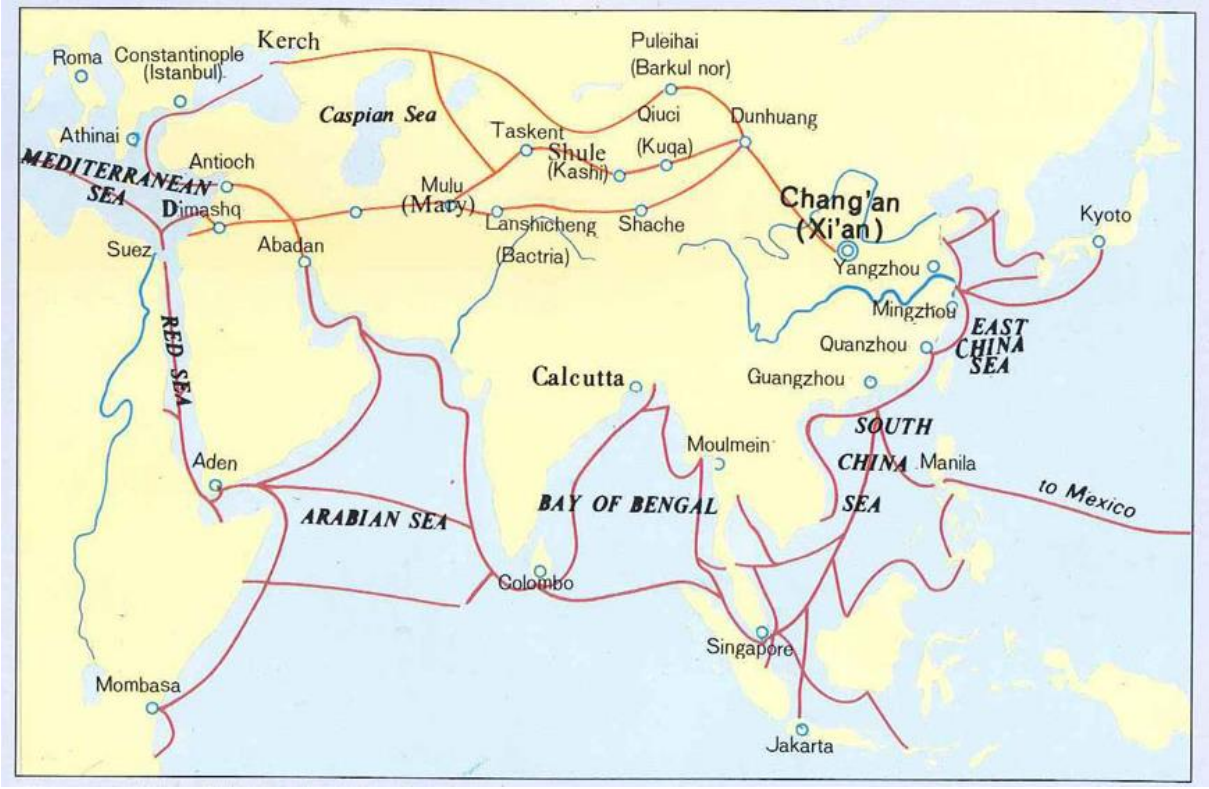

Figure: Academic Flow through the Silk Road

Silk Road is a testimony of a continuous journey of human knowledge, philosophy and religion, art and architecture, mathematics/science and technology ... and it's impact on the great civilizations of Yellow Rivers (China), Japan, Indus valley (India), Egypt, Persia, Arabia, the Ottomans and the Romans.

From it's birth before Christ, and through the heights of the Han and Tang dynasty, the *Silk road* has left it's mark on trade and commerce, political and economic system, cultural transformation and technology Transfer. Extending over 8,000 km (5,000 miles), the silkroad (or silk routes) developed interconnected networks linking traders, merchants, pilgrims, monks, missionaries, soldiers, nomads, urban dwellers and intellectuals from East, South and Western Asia with the Mediterranean World, including North Africa and Europe for thousands of years.

Background :

This idea was first aired by Mr. Enver YÜCEL, Chairman, Board of Trustees of Bahçeşehir University, İstanbul, Turkey at Mukogawa Women's University, Hyogo (Nishinomiya), during his last visit to Japan, in 2008.

The leadership of both universities recognizes the fact that, the massive/rapid transformation facing the 21st Century requires better and closer relations between value producing institutions in order to achieve better living conditions for societies towards a final objective of contributing peace, welfare and order in the region.
Therefore, it is strongly believed that the historical legacy of the "Silkroad Era" and it's profound impact on human growth, civilization, human ingenuity/creativity and innovation needs to be revisited.

We believe that this idea can best be achieved through an association which would provide a basis for all the parties could be of interest, namely; universities, state agencies and non governmental actors in a supportive manner.

About Participation
The prospective members/participants of the association are to be;

- Universities of the countries on/near Silkroad area.
- Individuals, suggested by the universities interested and participated,
- Foundations aimed at developing the countries of Silkroad region

The annual international conferences to be organized by iaSU, the first of which will be "*Archi-Cultural Translations through the Silkroad*" aims to enhance the mission of iaSU with special emphasis on

- Becoming familiar with contributive participants, with a stress on capacity and capabilities,
- Exchange of information and ideas related to the mission,
- Promote bi-lateral and multi-lateral cooperation on the projects,
- Seeking contributions of the non-academic institutions such as Government Agencies, NGO's and individuals which might be helpful.

ABOUT THE CONFERENCE

This conference aims to enhance awareness of cultural translations and cross/trans cultural interactions along the Silkroad beyond borders. It aims to address intensions and tensions of translation in space and time - where the effects of such translations are still actively experienced.

Silkroad is considered as a container and conveyor of knowledge; as a medium of interaction among different cultures. Going beyond the conventional explorations within the dichotomy of east and west; the variegated cultural and spatial practices of the Silkroad is intended to be explored through close study of local dynamics and through the perspective of cultural translations.

Studies in cultural translations imply the interaction of different cultures in various mediums where they adopt, borrow, assimilate and translate from one another. By its very nature, the act, the process and the experience of cultural translation is an active and creative process. Such multicultural interaction subsists a multitude of dynamics, and, gives birth to a broad range of study material; the object of translation, the creative process of translation, the end product, actors of translations, ideology and politics, strategies and means, reasons and motives of translation, the impact of translation, and others. Cultural translation essentially denotes the existence of at least two cultures where one intends to translate - adopts or inspires, from the other, intentionally and/or ideologically, or, unintentionally; with or without the consent and/ or knowledge of the other. Thus, this conference aspires to shed light on such intentional or unintentional cultural interactions through the Silkroad in terms of space and spatial practices; experience, design and perception of the built and natural environment.

Since translation is a form of cultural communication, this conference aims to initiate mapping networks, agents and examples of interaction exploring the dynamic and creative interfaces of the Silkroad; the unity and diversity of spatial practices within this special geography in perspective.

It is the aim of this conference to foster cultural exchange in present and in future prospects, beyond sharing the knowledge of history. The main intention of the conference is to provide scholars, researchers and designers from across the Silkroad with an opportunity to explore and debate historical, contemporary and future problems relating to the fields of architecture, regional and city planning, urban design and landscape cultures and practices of the Asian countries.

CONFERENCE THEMES

By its very nature, this is an interdisciplinary conference open to scholars in the related fields. The conference mainly seeks to share and discuss on comparative studies and critical interpretations of spatial translations along the Silkroad through research projects, or the design of built environments.
The THEMES on “archi-cultural interactions” will cover the followings :

- Design tools, materials and methods
- Materials & methods of the vernacular
- Conservation practices and adaptive re-use
- Cross-cultural interactions in art and design
- Sustainability and ecological concerns
- Urban & rural practices
- Landscape traditions
- Human & environment relations
- Sacred & secular spaces
- Objects of cultural practices
- Cultural acts of dwelling
- Digital approaches and applications
- Current dynamics and future prospects in design

This conference offers a unique opportunity for scholars, universities and research institutions representing different cultural identities of the Silkroad to exchange ideas, initiate collaborative studies and to develop new strategies for improving cross-cultural understanding and communication.

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SESSIONS

SACRED AND SECULAR SPACES

COMPOSITIONAL CHARACTERSTICS OF STONE ARRANGEMENT IN RYOANJI STONE GARDEN: A STUDY FOCUSING THE GARDEN STONES IN RYOANJI STONE TEMPLE

Authors: Gonca Hande Şahin[1], Shigeyuki Okazaki[2]

1,2 Mukogawa Women's University, Japan

Key words: Dry landscape garden, Ryoanji stone garden, composition, stone arrangement

Introduction

This research will focus on fifteen garden stones in Ryoanji Stone Garden. This research aims to understand the compositional characteristics of garden stones of Ryoanji stone garden by three-dimensional analysis with the help of the 3D model of the garden. Previous studies on Ryoanji stone garden were only focused on Ryoanji stone garden as a whole. There were no researches found which focused on stone groups and garden stones composed them. The significance of this research is analyzing three-dimensionally each garden stone in Ryoanji stone garden by focusing on their form and arrangement.

1. Research Subject: Ryoanji Stone Garden's Garden Stones

Ryoanji stone garden composed of fifteen garden stones which divided into five groups (Fig.1). In this research, for the convenience of explanation, each group and their garden stones were given a number. The number of gardens stones in stone groups is Group 1, five garden stones; Group 2, two garden stones; Group 3, three garden stones; Group 4, two garden stones and Group 5, three garden stones (Fig.2).

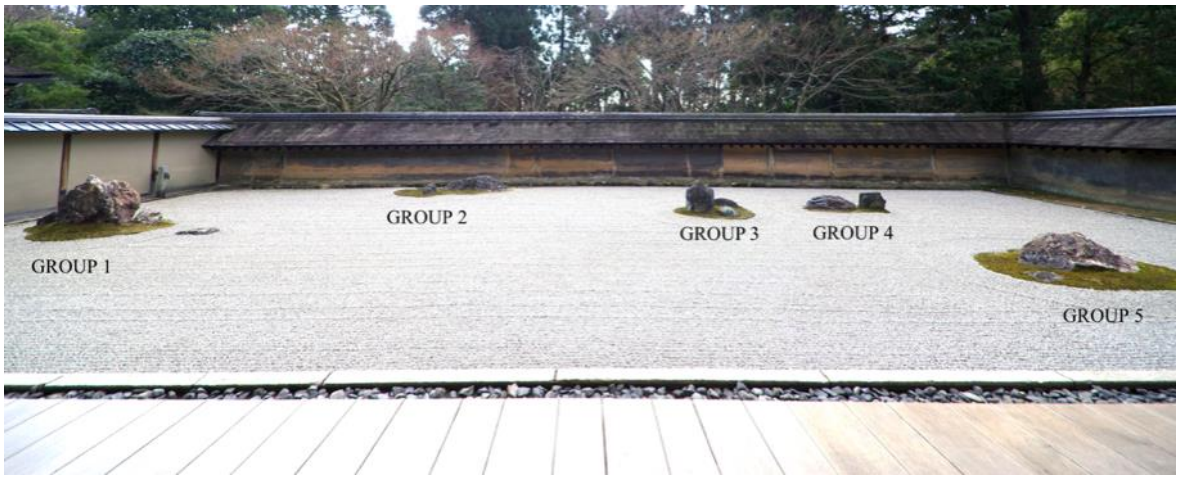

Figure 1: Ryoanji stone garden from Hojo's engawa. Stone groups are numbered starting from the East side to the West side of the garden. (Source: Author, 2018)

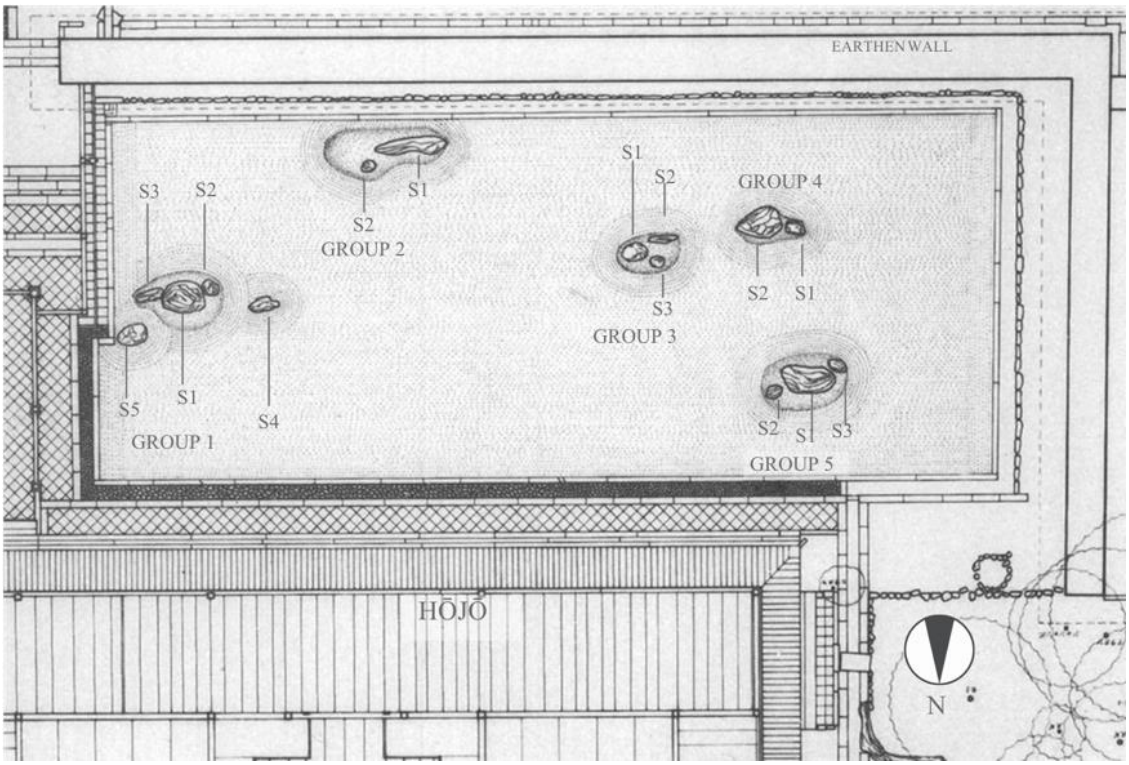

Figure 2: Plan of Ryoanji stone garden showing numbers of stone groups and garden stones. (Numbers written on the plan from Hida, 1985 [1])

2. Research Method

To understand the compositional characteristics of the stone groups and their garden stones in Ryoanji stone gardens, following steps performed explained below.

Collecting Photos: Photos of stone groups collected from field surveys.

3D Modelling of Ryoanji Stone Garden: To investigate garden stones of Ryoanji stone garden three-dimensionally in detail, 3D modeling of Ryoanji stone garden performed by 3D photogrammetric software called PhotoScan. This software uses photos to generate 3D models with texture [2]. In this 3D model, 296 photos taken at field survey in 2018 used. Currently, it is allowed to take pictures at Hojo's engawa only. Because of the limitation of photos, just the front and side parts modeled in 3D. With this 3D model, it was possible to investigate garden stones three-dimensionally. Various angles which were not possible to see in the field survey without using special tools could be extracted from the 3D model.

Analysis of Stone Groups and Garden Stones in Ryoanji Stone Garden: 3D model of Ryoanji stone garden imported to Vectorworks software as a mesh from Photoscan. On this 3D mesh, contour lines, profile lines parallel and vertical to Hojo drawn on the 3D model of garden stones. These contour lines and profile lines placed in every 2,5 centimeters on the 3D model. For understanding the direction of garden stones, silhouette lines detected and drawn on the 3D model. For detecting silhouette lines' highest points visible on profile lines vertical to Hojo were selected from sitting and standing in engawa in front of each stone groups and drawn on the 3D model.

3. Analysis of Stone Groups and Garden Stones

Group 1: G1S1, G1S2, G1S3 which are the stones that have a substantial impact in the group's composition, facing towards Hojo's engawa. Among these based on their silhouette lines, G1S1 and G1S3 are arranged almost parallel to the Hojo's and facing Hojo's engawa perpendicularly, and G1S2 is arranged diagonally and facing Hojo's engawa diagonally (Fig.3).

Group 2: G2S1, G2S2 are facing towards Hojo's engawa. G2S1 arranged almost parallel to the Hojo's engawa and facing Hojo's engawa perpendicularly. G2S2 arranged diagonally and facing Hojo's engawa diagonally.

Group 3: G3S1, G3S2 and G3S3 are facing towards Hojo's engawa. Among these based on their silhouette lines, all garden stones arranged almost parallel to the Hojo's engawa and facing Hojo's engawa perpendicularly.

Group 4: G4S1, G4S2 are facing towards Hojo's engawa. Among these based on their silhouette lines, all garden stones arranged almost parallel to the Hojo's engawa and facing Hojo's engawa perpendicularly.

Group 5: G5S1 is facing towards Hojo's engawa. Based on its silhouette lines, G5S1 arranged diagonally to the Hojo's engawa and facing Hojo's engawa diagonally.

4. Conclusion

This research focused on stone groups and their garden stones of Ryoanji stone garden. Each garden stone was analyzed by focusing on their form and arrangement.

(1) 11 of 15 garden stones' front surface are facing towards Hojo's engawa in Ryoanji stone garden.

(2) 8 of 11 garden stones, which their front surface facing toward Hojo's engawa in Ryoanji stone garden and facing Hojo's engawa perpendicularly.

(3) 5 of 11 garden stones' which are the biggest garden stone in their stone groups which have a strong impact on their group's composition are facing towards Hojo's engawa.

(4) 4 of 15 garden stones of Ryoanji stones garden did not have a front surface due to their flat from and placed horizontally to the ground.

In conclusion, the majority of garden stones' front surfaces, including the biggest garden stones in their group, was found that facing towards Hojo's engawa is a significant composition characteristic of stone groups of Ryoanji stone garden.

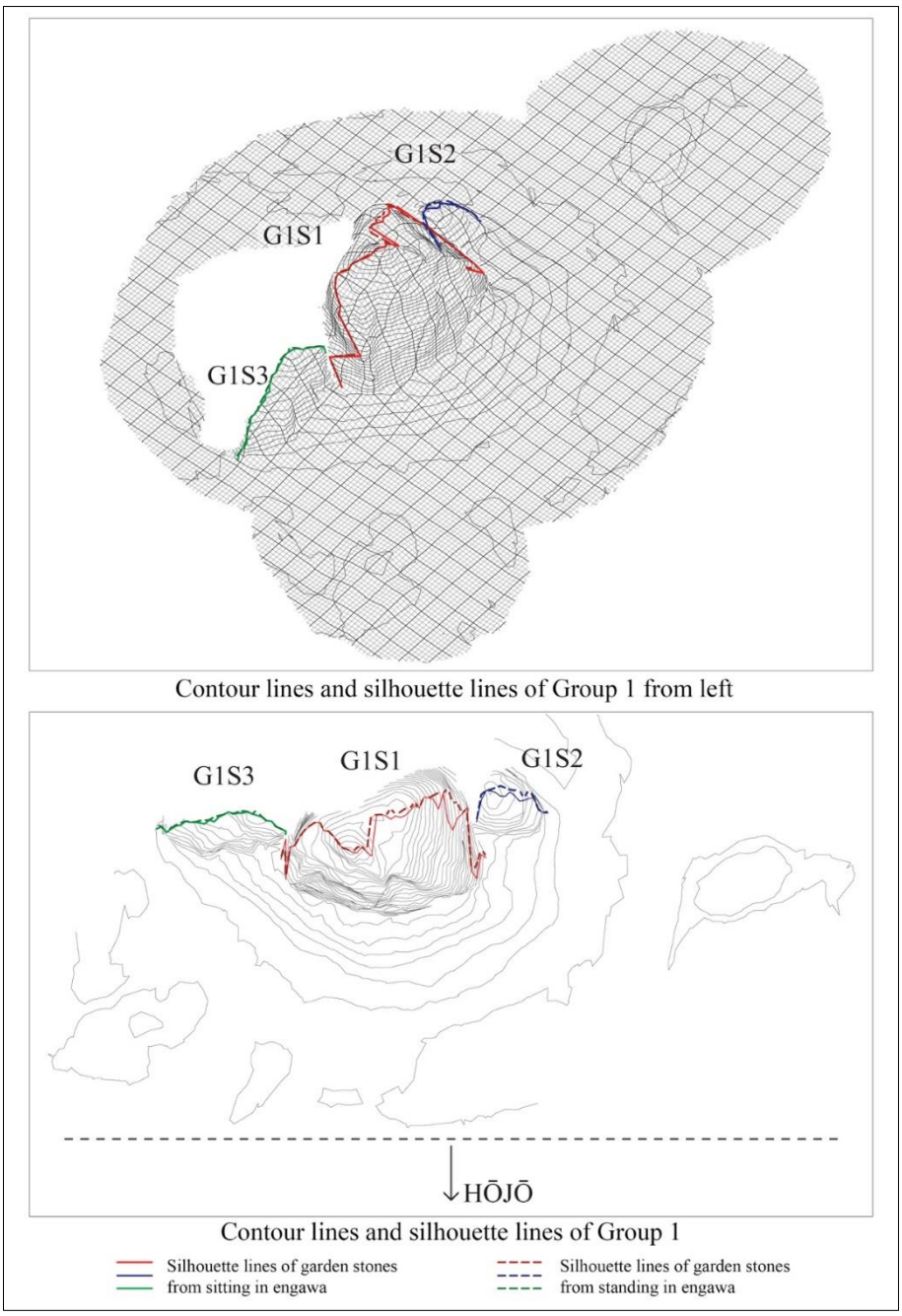

Figure 3: Silhouette lines and their relations with Hojo of garden stones in Group1. For understanding the direction of garden stones, silhouette lines detected and drawn on the 3D model. For detecting silhouette lines' highest points visible on profile lines vertical to Hojo were selected from sitting and standing in engawa in front of each stone groups and drawn on the 3D model.

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ASSESSMENT OF A HISTORICAL DISTRICT IN THE CONTEXT OF URBAN REVITALIZING AND ADAPTIVE REUSE: A CASE STUDY

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2 Hacettepe University, Turkey

Key words: traditional turkish house, urban regeneration, adaptive reuse, place identity

Introduction

Historical urban spaces are not only one of the main elements of a city that improve the place identity and memory, but they also support the rest of the district in creating a mutual urban identity. [1] As a result of rapid urbanization, settlements face continuous changes gradually creating a thread of vanishing of current identity that has been carried out throughout centuries. The alteration in social, cultural and economic meanings have had impact on historical and built environments. Consequently, the place identity and memory of cities are transformed dramatically. Many buildings and lots are left abandoned, unused or vacant. If change is the law of life, then it should be under control in order to restrain a dislocation and regenerate a continuity with the past. [2]

The main question to pay attention here is how to sustain an urban identity of a district while keeping a strong relationship with past and ensure its continuity. When heritage buildings are no longer in use, adaptive reuse might be a choice to preserve its importance and to ensure its continuity in sociocultural meaning. [3]

This research aims to evaluate the potential benefits of revitalization of a historical district in order to enhance the place identity. The sociocultural, economic and physical aspects of assigning new functions into abandoned traditional houses will be discussed by questioning in which manner the values of past are being integrated with transformed districts.

Methodology

In order to support the hypothesis of the research, a case study about urban transformation and adaptive reuse is conducted. A historical district 'Germiyan Sokak' in Kütahya, Turkey is selected as a result of its current transformation project that is led by the municipality. Since it is still an on-going project, the focus of the study is limited to the physical aspect of urban identity instead of including the social variables.

The collection of current data of the transformation process is realized through site visit to the selected area. During the site visit, structures and buildings are analysed in terms of their location, architectural history and current usage. Eight mansions, which have been reused as different functions since they lost their original functions as residential purpose, are selected for deeper examination. Maps and drawings for morphological analyses, archive review, on-site observation and old/new photography comparisons will be used during the examination. Moreover, the appropriateness of the new functions that are assigned to the mansions will be studied. One of the eight main mansions, which is transformed from a rich family residential house into a city museum, is selected for even further research in terms of

its not only functional transformation but also its spatial and contextual renewal. This study aims to compare the past and present situation of mansions by making spatial analyses with theoretical approaches about urban regeneration and adaptive reuse.

Research Site

Kütahya is a city situated in the Aegean Region of Turkey on the east-west axis in the skirts of Yellice Mountain and was hosted by many civilizations such as Phrygia, Pergamon, Rome, Byzantium, Seljuks, Germiyanids and Ottoman Empire. [4] The architectural remains that have managed to reach until today mostly belong to Germiyanids and Ottomans. It is the second city in Turkey that is chosen by UNESCO for the Creative Cities Network.

Due to the rapid urbanization, the traditional Kütahya houses are currently not being used for residential purposes and the residential living has moved towards to high-rise apartment blocks that are situated outside of the historical area. This situation results with destruction of the traditional houses and consecutively the historical pattern of the city. [5] Currently, there are projects ruled by the municipality and Çekül Foundation that aim to regenerate old and traditional houses by adding new functions in order to contribute to the traditional city identity as well as to society.

Germiyan Sokak used to be the historical center during Germiyanids Period. The street is lined with traditional houses and mansions. Kütahya houses are composed of maximum three storey designs with wooden buttresses that gradually pull out, wide eaves, wooden double leaf doors, open interior spaces that are enclosed and plain façade style with few windows at first level for privacy issues. [6] (Figure 1)

Figure 1. Germiyan Sokak (www.kutahya.bel.tr)

Figure 2. Map of Germiyan Sokak (illustrated by the author)

As it is seen on the map (Figure 2), currently many houses are left abandoned. They not only create danger for surroundings but also harm the protection of the place identity. The chosen eight mansions are the ones that are renovated by the municipality and are assigned a new function for adaptive reuse:

1) Mansion - Association for Young Entrepreneurs

2) Ispartalılar Mansion - Boutique Hotel

3) Germiyan Mansion - Restaurant

4) Hanedan Mansion - Restaurant

5) İrvasa Mansion - Cemile Gül Handicrafts Atelier

6) Şekerci Şükrü Mansion - Mehmet Gürsoy Tile Production and Selling Atelier

7) Şapçılar Mansion - Historical City Museum (chosen for the further examination)

8) Karaca Mansion - Handicrafts Showroom

Şapçılar Mansion is used to belong to a family that had migrated from Bosnia Herzegovina in late 19th century. Later, the mansion is transferred to a well-known family: Şapçılar, in 1912. Currently, the mansion is used as a Historical City Museum.

Conclusion

Regenerating historic areas is a big part of protecting vanishing urban identities. However, to do so, it is important to fully understand the relationship with past and investigate its traditional principles unlike the

example of Şapçılar Mansion. It is observed that during the renovation of Şapçılar Mansion, used materials and construction techniques are completely changed and this resulted in a new style consisting of different architectural elements comparing to past. Using the abandoned mansion as a museum might contribute to the city identity however, it also causes the loss of characteristic features of traditional houses. In this manner, protecting and improving the city identity will not be possible but only will create a tangled and copied styles that has no relation neither with past nor with place identity and memory.

Using traditional houses for different functions will propose benefits to the community especially if they are utilized for public such as commercial or cultural use just like in Germiyan Sokak case study in Kütahya. Although now, almost half of the street still is composed of abandoned buildings, the adaptively used mansions already contribute to sociocultural and economic development of the city. It is believed that policies about increasing awareness and projects to preserve cultural heritage should be developed in order to ensure social and cultural sustainability of the city.

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THE TYPES OF SPATIAL COMPOSITION OF MONASTRIES: THE SPATIAL COMPOSITION OF BUDDHIST TEMPLES IN CENTRAL ASIA, PART 3

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Key words: Buddhist Temple, Monastery, Central Asia, Spatial Composition

Introduction

This study is to elucidate the types of spatial composition of monasteries on Buddhist temples in Central Asia1 through bibliographic surveys. In Part 1, the comprehensive consideration about the transformation of stupas had been proposed [20]. In Part 2, the transformations and the characteristic forms of shrines had been proposed [21].

In this study, the Buddhist temple remains forming a saṁghārāma were treated as the analysis subject. Originally, saṁghārāma means only the place where Buddhist disciplinants live with ascetic practices but also Buddhist temple, and group of main buildings of temple. In many Buddhist temples in Central Asia, there was a sacred area where included worship objects such as stupas and shrines, and a monastic (living) area for disciplinants, also called vihāra which means monastery. Buddhism disciplinants lived into a forest and a cave in the earliest stage. After the times, kinds of a hut and a hermitage were built, and they came to live there. Generally, living quarters for disciplinants are called "monastic cell (or just cell)".

Study Areas and Remains of Buddhist temple

The areas shown in Fig.1 are study subjects. The study subjects are 33 temples where monastic cells or a monastery was established in.

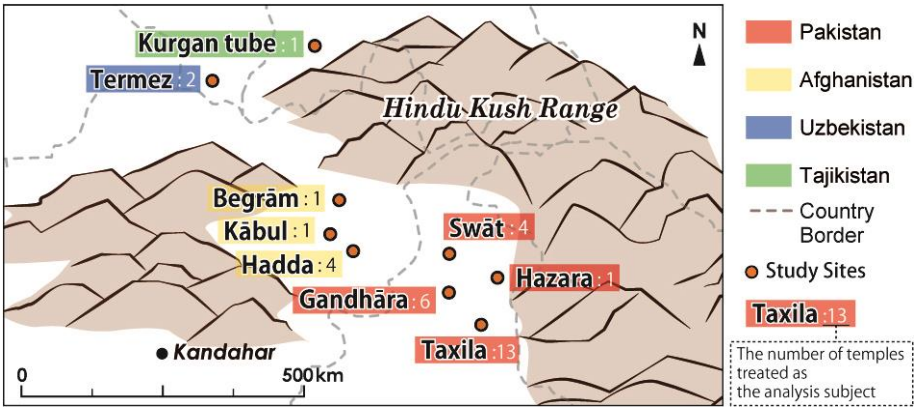


Figure 1: Map of Study Areas

"Cell" is a word indicating the individual living room for a monk. However, in this study, "cell" is defined as one or more monastic cells lined up. On the other hand, the spatial composition which a central courtyard is surrounded by many cells is defined as "monastery". A monastery of Buddhist temples includes the functions as follows: Bedroom for life and bed for Buddhist priests, dining room, kitchen, an open pillared pavilion, promenade and covered passageway for moderate exercise, bathroom, kathina-hall for tailoring, a well and well-house and storeroom of foods and medicines2. The spatial composition of monasteries was analyzed based on not only these functions but also spatial components especially a courtyard, pillar and hollow (for accumulating rainwater).

Method

The spatial composition of monasteries was researched focusing on the spatial component from the drawings, photographs, and the descriptions of documents such as excavation reports. The types of spatial components and function of monasteries were extracted, and they had been tabled. Based on the table, the common and different features in the spatial composition of monasteries were analyzed. Finally, the spatial compositions were divided and classified into the types and schematized the classified types. Then, we analyzed the locality of types of spatial composition in Buddhist monasteries.

Types of Spatial Composition of Monasteries

The table showing the functions, components, and the relation of both things in each monasteries of study subject was prepared. Based on the table, the common and different features of the spatial composition of monasteries had been analyzed. As the result, it had been considered that the spatial composition of monasteries was divided into 3 types roughly, and 8 types finely (Fig.2). Rough division is as follows: [1] Mountain Vihāras3 are often located scattered on a mountain, [2] Small Monastery which some monastic cells surround a central small cortyard, [3] Quadrangular Monastery3 which many cells surround a central wide courtyard. Qudrangular Monastery could be devided into 6 types: [M1] monastic cells surround a courtyard, [M2] Monastic cells surround a courtyard and a hollow is establish in a courtyard [M3] A hollow including a small bath room in the corner of hollow, [M4] A hollow surrounded by lined pillars, [M5] A hollow is surrounded by lined pillars and a small bath room is located in the corner of hollow, [M6] there is a square space in the center of courtyard which is surrounded by walls. Table 1 shows the explanation of the classified temples (Fig.2) according with their names, locations and dates.

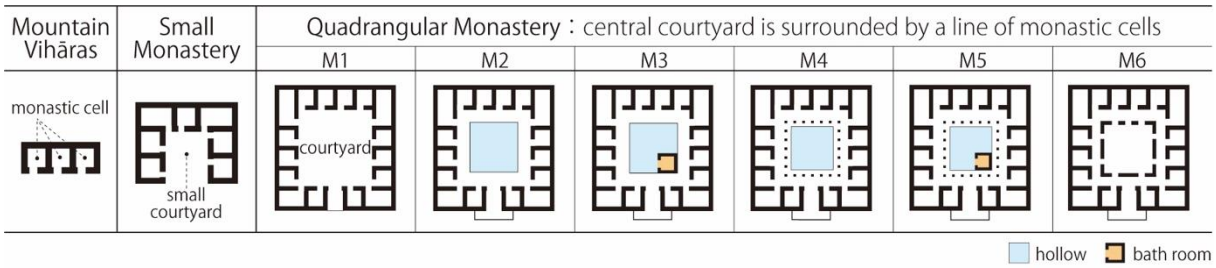


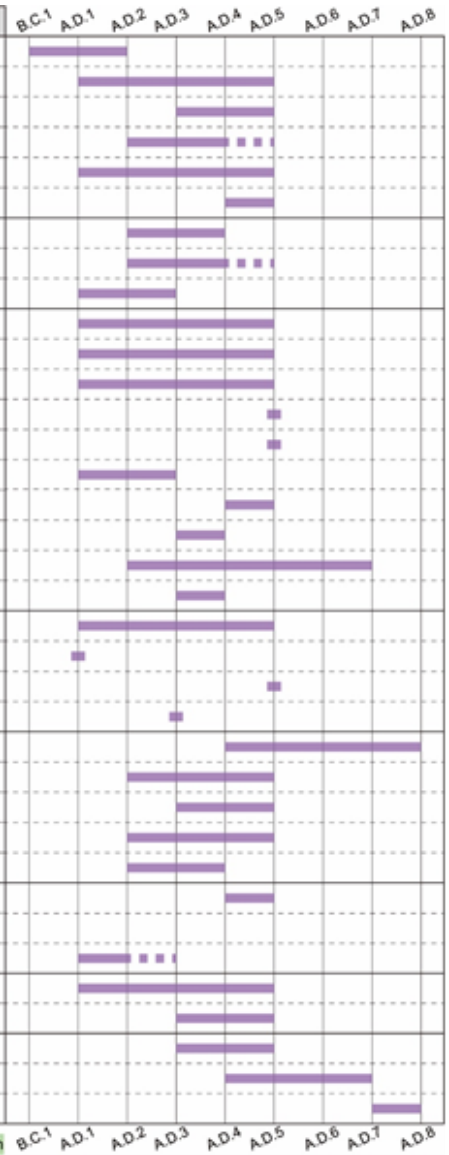
Figure 2: Spatial composition types in Buddhist monasteries

Locality of Types of Spatial Composition in Buddhist Monastery

It has been clear that there were many cases in type Mountain Vihāras and type M1. Type M1 is the most generall type in spatial compositon of Buddhist monasteries because type M1 is seen in wide district. Besides, it could be seen various monastery types in Taxila. On the other hand, in Gandhāra temples, there were many cases in which few monastic cells arranged horizontally, and Quadrangular Monastery was only seen in Takht-i-Bahi temple. In addition, it has been elucidated that type M3 and M5 consisting a bathroom, were seen only in Greater Gandhāra (including Taxila, Gandhāra, Swāt, Hazara).

Table 1: Explanation of the classified temples (Fig.2) according with their names, locations and dates

Type		Name of Buddhist temple	Location	Date
Mountain Vihāras (monastic cell)		Dharmarajika complex	Taxila (PAK*)	B.C.1-A.D.2c
		Jamal Garhi	Gandhāra (PAK)	A.D.1-5c
		Mekhasanda Outlying Mountain Monastery		A.D.3-5c
		Tharali mountains vihāra		A.D.2-4,5c?
		Panr Upper terrace	Swāt (PAK)	A.D.1-5c
		Zar Dehri	Hazara (PAK)	A.D.4-5c
Small Monastery		Ranigat southwest site	Gandhāra	A.D.2-4c
		Thareli site C		A.D.2-4,5c?
		Nimogram	Swāt	A.D.1-3c
Quadrangular Monastery	M1	Akhauri (Chir Tope) B	Taxila	A.D.1-5c?
		Akhauri (Chir Tope) C		A.D.1-5c?
		Chir Tope A		A.D.1-5c?
		Giri Stupa A and Monastery B		A.D.5c
		Giri Monastic courts E and third court of cells		A.D.5c
		Tokar Dara	Swāt	A.D.1-3c
		Zar Dehri	Hazara	A.D.4-5c?
		Bagh Gai	Hadda (AFG*)	A.D.3-4c
		Gar-Nao		A.D.2-7c
		Gul-Darrah	Kābul (AFG)	A.D.3-4c
	M2	Chir Tope D1	Taxila	A.D.1-5c?
		Pippala		A.D.1c
		Giri Monastic courts D		A.D.5c
		Qol-i-Nader	Begrām (AFG)	A.D.3c-
	M3	Bhamala	Taxila	A.D.4-8c
		Jaulian		A.D.2-5c
		Kalawan Court of cells B, C, F		A.D.3-5c
		Kunala		A.D.2-5c?
		Takht-i-Bahi	Gandhāra	A.D.2-4c
	M4	Tapa Shotor	Hadda	A.D.4-5c
		Tapa-e-Top-e-Kalân		?
		Fayaz Tepe	Termez (UZB*)	A.D.1-2,3c
	M5	Saidu Sharif	Swāt	A.D.1-5c
		Mohra Moradu	Taxila	A.D.3-5c
	M6	Kalawan small monastery H	Taxila	A.D.3-5c
		Karatepa north court	Termez	A.D.4-7c
		Ajina tepa	Kurgan tube (TJK*)	A.D.7-8c



*PAK=Pakistan, AFG=Afghanistan, UZB=Uzbekistan, TJK=Tajikistan

Conclusion

Througout the analysis about the spatial composition of Buddhist monasteries in Central Asia, this study has clarified that there were the three typical spatial composition: Mountain Vihāras, Small Monastery, Quadrangular Monastery which which was enable to divide into 6 types (Fig. 2). Most of monasteries had a central courtyard.

It has also been cleared that there was the locality of types of spatial composition in monastery. Type Mountain Vihāras and M1 was seen in the wide areas of Pakistan. Both of small scale, type Mountain Vihāras and Small Monastery were seen in only Greater Gandhāra. In Taxila, located in the most southern part of this study area, many types of spatial composition with a central courtyard were seen. On the other hand, only one exmaple of type Mountain Vihāras in Taxila (Dharmarajika complex). So, a monastery of spatial composition wth a central courtyard might become established in Taxila.

Notes

1. It was defined that “Central Asia” includes Pakistan and Afghanistan in this paper.
2. Refer to the references from No. [15] about the functions of Buddhist monasteries.

3. Refer to the references from No. [3] about the naming of “Mountain vihāras” and “Quadrangular Monastery”.

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HUMAN AND ENVIRONMENT RELATIONS

FOURSQUARE ME: THE BLANDLY MONOTONOUS "AIRSPACE GEOGRAPHY" OF BEŞIKTAŞ

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Key words: airspace geography; third-wave coffee, coffee shop, global vs. local, interior design, design vocabulary, hidden gardens

Introduction

The term "AirSpace Geography" was coined by Kyle Chayka in 2016, in an article that appeared in The Verge [1]. He defines it as, "... the realm of coffee shops, bars, startup offices, and co-live / work spaces that share the same hallmarks everywhere you go: ... Minimalist furniture. Craft beer and avocado toast. Reclaimed wood. Industrial lighting. Cortados. Fast internet" [2]. These are the symbols of comfort and quality, Chayka claims, at least to a certain connoisseurial mindset.

That connoisseurial mindset seems to have originated among the highly mobile digital nomads, entrepreneurs, and executives of the world who desire, mostly, to move between locales as effortlessly as reloading a webpage. And that desire, coupled with the social-media-based influence these digital nomads have over the public, has led to a homogenization of spaces that cater to such clientele. In Airbnb's words, it is "a world where you can belong anywhere" [3].

The same homogenization is readily observable in the emerging AirSpace geographies of Istanbul's Beşiktaş district. In the initial phase of this study (2014-2016), AirSpace aesthetic was most readily observable in the district's third-wave coffee shops; hence our focus on these spaces. However, closer scrutiny revealed that the phenomenon is much more omnipresent. As Rem Koolhaas notes in his seminal essay "The Generic City," the contemporary city is beginning to look like contemporary airports—all the same; hence, Koolhaas queries, "What if this seemingly accidental—and usually regretted—homogenization were an intentional process, a conscious movement away from difference toward similarity?" [4]

Conscious or not, the move towards similarity has bled into other parts of social space. And despite its supra-national character, the way in which this move plays out in different locales is necessarily, local. While many of the AirSpace establishments in question share the unmistakable, bland aesthetic of AirSpace, closer scrutiny reveals that there is much localization going on. It is the aim of this paper to uncover the ways in which AirSpace is 'bent and twisted' as it is made local, and how the local is accommodated within the global.

Methodology

This study adopts a qualitative mode of research, where participative observation, ethnographic data collection, and thematic analysis are the preferred modes of inquiry. Data collection has been longitudinal, over a period of several years. The first phase of the data collection was between February 2, 2014, and March 10, 2016, and the second phase lasted from November 5, 2018 to February 25, 2019.

Participative observation was conducted via field visits to the spaces in question, and ethnographic data collection involved non-structured interviews with establishment owners and customers, as well as the use of internet-based content.

The area under scrutiny is the commercial core of Beşiktaş. As per data obtained from the Beşiktaş Municipality, commercial activity is highest in the central neighborhoods of Sinanpaşa and Türkali, so these were selected for the study. As of February 2019, 53 AirSpace establishments that fit the inclusion criteria for this study existed within the area. These criteria are: (1) the existence of architectural and/or design elements that seem to be hallmarks of AirSpace—these have emerged from the review of literature and through a thematic analysis of candidate spaces (they include features such as Edison lamps, rough-hewn wood tables, dark interiors, etc.), (2) that the space be open to public access (thus, Airbnb-listed properties or startup offices, for example, were not included in the study), and (3) that the space be frequented by clientele befitting Chayka’s definitions of the global, and high-mobile, “digital nomad.”

Figure 1: Map of area under scrutiny, and the locations of “AirSpace” establishments

Edison Lamps, Rough-Hewn Wood Tables, and Crepuscular Interiors

As noted above, a certain set of architectural and/or design elements seem to be hallmarks of AirSpace world over, and Beşiktaş is no exception.

Most AirSpace establishments in the area feature dimly-lit, crepuscular interiors, with jet black being the preferred color for walls and ceilings. Patterned tiles are prevalent on floors, while overhead, some sort of wire mesh suspended ceiling is typically used. Tables are almost always rough-hewn wood, with supports made of sanitary piping in some cases. Some higher-end AirSpaces, however, do veer towards the use of more exclusive materials such as marble. Light fixtures are standardized as well, with Edison lamps dominating most AirSpace geographies.

Despite the nearly-standardized design vocabulary used in AirSpace establishments, however, there are examples that refuse to blend in. Take, for example, a number of AirSpaces which embody the concept of the Islamic 'hidden garden': of the 53 spaces under investigation, six have back gardens which provide a secluded and lush setting where their patrons can enjoy flat whites and cortados in a serene environment.

There are variations, too, in the way different AirSpace geographies are utilized by their patrons. While some of the more exclusive spaces located towards the west of the area had shared tables filled with freelancers on MacBooks, smaller, more hip places located near Ihlamurdere Street typically hosted noisy groups who were there, it seemed, for the conversation as much as the specialty beverages or food.

This and similar observations point to the delightfully complex, and multi-faceted way in which AirSpace is adopted in Beşiktaş and, by extension, Istanbul. This paper attemts to delineate the ways in which AirSpace is made local, and to determine the set of architectural and/or design elements that are peculiar to this locale. Through the use of thematic analysis, these elements are presented in matrix format to uncover their prevalence, and to determine their relative importance in the creation of AirSpace in Beşiktaş.

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EFFECTS OF URBAN SPATIAL ORGANIZATION ON SOCIABILITY IN A NEIGHBORHOOD: CASE OF A CITY SQUARE, GÜNEŞ SAATİ, ABBASAĞA NEIGHBORHOOD

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Key words: Sociability, Public space, Spatial Organization, Neighborhood, Square

Squares as sociable hubs in the city

Throughout history, there were attempts to define optimum size of a city. For example, for Ancient Greeks a polis has to be walked in maximum two days from one end to another or as Plato defined, an ideal polis has 500 citizens at most. For Aristo 'size' is related to social interactions, a citizen of a polis, should be able to recognize every other citizen at least by sight. After Industrial Revolution, cities had to be re-designed and enlarged to cope with new conditions. This process had unique effects on cities and their already existing regions [1]. Today, the scales of the cities vastly changed, and it is impossible to expect a city to be a compact, homogenous mass with a defined ─definable size; instead they are considered as complex web of systems. In the city, there are some invisible and physical boundaries, which leads to create a neighborhood ─smallest unit of a city. A neighborhood adjacent to another one creates the unique fabric of the city. But from where does this subdivision come within the city? How is it possible to distinguish one district from another apart from the lines drawn by the municipalities between districts?

As in the case of cities, formation of the boundaries is hardly ever related to its size; vis-a-vis its social features, economic reflections and its spatial features. A definition for neighborhood would be: a city piece with complex elements that contains people, within well-defined boundaries; who are in constant interactions to form a social system. Previous works on the field reveals that existence of an urban space is essential for a neighborhood to maintain its existence [2]. Residents supposed be in constant contact using these public spaces. From this point of view, squares can become important hubs for a city to create a sociable space for people [3].

How does spatial characteristics of a common space in a neighborhood, affect the social interactions between locals? To understand this relationship, Güneş Saati Square, Abbasağa neighborhood is studied. First, Abbasağa neighborhood is examined if it consists the essential requirements of a neighborhood due to theoretical background. Thereafter the square is analyzed with several methods to understand the relationship between sociability and spatial characteristics of a neighborhood using M. W. H. Weening et. al.'s [4] categorization of neighborhood settings. Rather important locals such as café owner, local authority and frequent users have been interviewed. Additionally, observations made two times a day approximately at the same hours for two days in order to understand the interactions between locals and environment. Aim is to make a distinction between the locals and passers-by and their behavior modes. On the basis of this background, behavior modes distinguished into two main categories: qualified behavior modes and behavior modes of passers-by: Behaviors which includes casually aroused interactions, are included to the first category; whereas walking by, running down the street without interaction are evaluated under passers-by category. The relation between owners of the cafés and clients had been observed this way to understand the distinction between the users of the common space, stakeholders whom profit from the usage of the space and unfamiliar people.

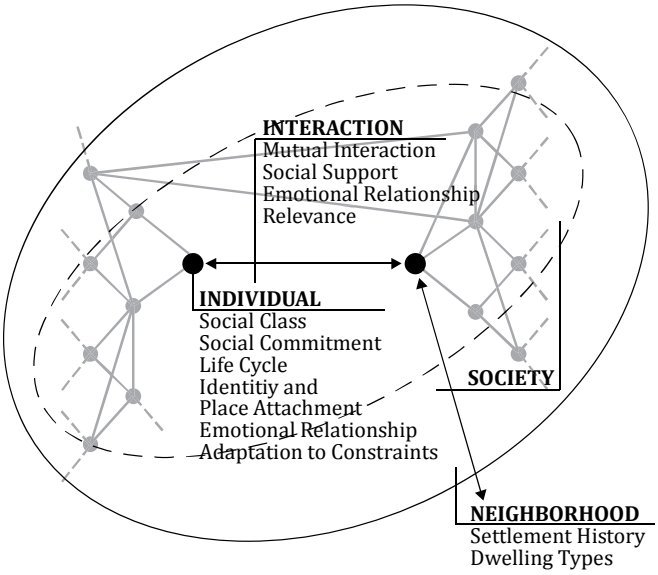

Figure 1: An attempt to re-think about the categorization of the neighborhood (M. W. H. Weening et al., 1990).

Based on the findings of interviews and observations, a questionnaire is prepared for a better understanding of the social features. 30 people who were at the square simultaneously were participated. Finally, spatial features of the square have been examined. Mostly used spaces are determined using time-lapse videos, observations and site analysis. Data sets gathered from interviews, observation, survey and site analysis had been superposed.

This study demonstrates how social interactions can be formed in a neighborhood. Güneş Saati Square is a small example of many other public spaces, but it is very important for Abbasağa Neighborhood to gain its characteristics in addition to Abbasağa Park. Through discourse analysis, observation, questionnaire, and spatial analysis, it can be claimed that there is an affirmative relation between spatial features and interaction between people and built environment. It's important for a city to have characteristic neighborhoods with unique public spaces. Because public spaces have to be embraced primarily as social spaces where people have opportunities to interact each other and Güneş Saati Square gives that opportunity to its users.

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HOUSING DEVELOPMENT AND TRANSFORMATION IN ISTANBUL

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Key words: Urban transformation, new residences, house expectations, Istanbul

Abstract

Istanbul is the biggest metropolitan city in Turkey with a very large scale of urban development and transformation projects. From the 1950s; with the migration from rural to urban; Istanbul is constantly undergoing an urban transformation in various scales. Since the 2000s, apart from globalization [1], there are various factors which have a great impact on Istanbul; the 1999 Marmara earthquakes, a great number of migrations from Middle-east and war zones, changing legislation, etc. And with social, political and technological developments and reflections of these mentioned factors, the effect is bigger and faster than ever before.

In this sense, this earthquake is the turning point in the urban transformation process which plays an important role in order to regenerate the building stock. Istanbul is the most-affected city by this transformation, especially in housing buildings. The new regulations supported and encouraged this urban transformation process in different scales in housing. The current urban transformation has affected different districts in various ways based on district properties, plot properties and the socio-economical structure of the residents [2]. Also, young population and migration from Middle-east and war zones have a great impact on the socio-economical structure of the residents and it is restructuring today's global trends in Istanbul.

Real estate agencies are also interested in the changing user profile and urban environment. A wide-angled survey is done by GYODER (Real Estate and Real Estate Investment Trusts Association), in order to draw the frame for the potential buyer's expectation-performance analysis in the housing sector which states remarkable observations [3]. The physical, social and psychological needs and expectations from the house and home are shaping the development process.

This paper attempts to shed light on the urban development and transformation processes and new housing in Istanbul within the aforementioned context, discussing new urban housing expectations and implementations [4]. The paper begins with conceptualizing the notion of globalization, the transformation in residents as well as the residences. Also, the meaning of home and expectations from the house will be discussed basically focusing on the physical and socio-economical changes in the houses and the neighborhoods.

The main discussion will focus on the current situation of the construction sector in Turkey nowadays. The legislation, as well as the economical crisis, is affecting the production and target profile. The social and physical reflections of expectations will be mentioned and discussed with the projects designed and constructed by renowned firms in Istanbul, the current housing projects are mainly gated residential projects. Therefore, the selected projects are also gated examples, and the selection is based on the location (center or periphery), housing types (villa towns, apartment blocks, gated towers, and mixed-use), and the variety of the services provided by the private governance of the gated residential development. With the variety of examples, current dynamics and trends for housing sector will be discussed and the future of housing design and production will be assessed.

The houses became investment tools which means that the buyers are usually middle-upper or upper-income group and already own one or more houses. From the spatial and social perspective, the

aforementioned gated residential projects promote social and spatial segregation. Moreover, key words like security, prestige, comfort, and lifestyle are associated with these kinds of houses. Ads became more important, signature projects and projects from famous firms came forward as guarantee projects. As such, houses become divorced of their cultural and functional aspects and turn into market-oriented commodities.

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DIGITAL APPROACHES & FUTURE PROSPECTS

METHOD OF VISUALIZING LANDSCAPES FROM TOMBS OF THE FINAL KOFUN PERIOD IN THE WOODS WITH A HIGH-DEFINITION THREE-DIMENSIONAL MODEL BY SFM AND THREE-DIMENSIONAL GIS: A CASE STUDY OF KOGUCHIYAMA TOMB IN THE KAWACHI AREA

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Key words: landscape simulation, SfM, tombs of the Final Kofun period, UAV

Introduction

This paper proposes a method that visualizes landscapes from the tombs of Japan's Final Kofun period (the latter part of the 6th century through the latter part of the 7th century) in the woods using a high-definition three-dimensional model based on structure from motion (SfM) multi-view stereo photogrammetry[1] [1] and three-dimensional GIS to analyze the relationship of the axial directions of the tombs and their views. Many of the tombs constructed in the Final Kofun period seem smaller and more integrated with the natural landscapes than tombs constructed in the early and later Kofun periods when large-scale tombs were predominant. We assume that identifying of the locating principles of the tombs of the Final Kofun period will shed light on the relationships between locations of tombs and their underlying thought on the harmony between nature and artificial objects possessed by the imperial family and the other powerful families of the period.

Our previous study [2] encountered the following two problems: 1) A three-dimensional model based on a 5-m DEM of Fundamental Geospatial Data by Geospatial Information Authority of Japan (GSI) can't represent small-scale tomb mounds. 2) The position coordinates of single positioning by GPS have an error rate of about 10 m. Our recent study [3] extended its methodology and develops more precise terrain models of small-scale tombs, partially obstructed by surrounding trees, by SfM with photographs taken from a small UAV and a Global Navigation Satellite System (GNSS)[2] survey with cm accuracy. In this paper, we develop the method and apply it to tombs almost totally obstructed by surrounding trees.

Methods

Our target ancient tomb is Koguchiyama Tomb located in the Kawachi area (present Kashihara, Habikino, and Tondabayashi cities and Taishi town located in the southeast of Osaka Prefecture). It was probably built after the middle 7th century [4]. It is a round mound with about 30-m diameter and has a Yokoguchi-shiki Sekkaku (a stone sarcophagus with a side entrance) made of tuff, a stone sarcophagus that opens in the axial direction, and the view is obstructed by the surrounding trees (Fig. 1). We conducted the field surveys on February 26 and 28, 2018. Photographs were taken by a small UAV (DJI Phantom 4 Pro camera: 1" CMOS, effective number of pixels: 20 million pixels) with both auto pilot and manual pilot from various heights and distances. 45-cm square air photo signals were used as ground control points (GCPs) and checkpoints. Geographical coordinates of GCPs and checkpoints were obtained by post-processing the observed raw data by two GNSS receivers (Emlid Reach RS: one used as a base, and the other as a rover) with RTKLIB[3]. High-definition three-dimensional models of the tomb were reconstructed based on photographs by UAV with SfM software (Agisoft PhotoScan Professional Edition version 1.4.4), and georeferenced DSMs and orthophotos were generated. We overlaid the high-definition DSMs and the orthophotos of the tomb on a 5-m DEM and orthophotos by GSI with GIS software (ESRI ArcGIS Pro version 2.2) and generated landscape simulation images from the tomb[4].

a) In front of Yokoguchi-shiki Sekkaku b) From the back of Yokoguchi-shiki Sekkaku

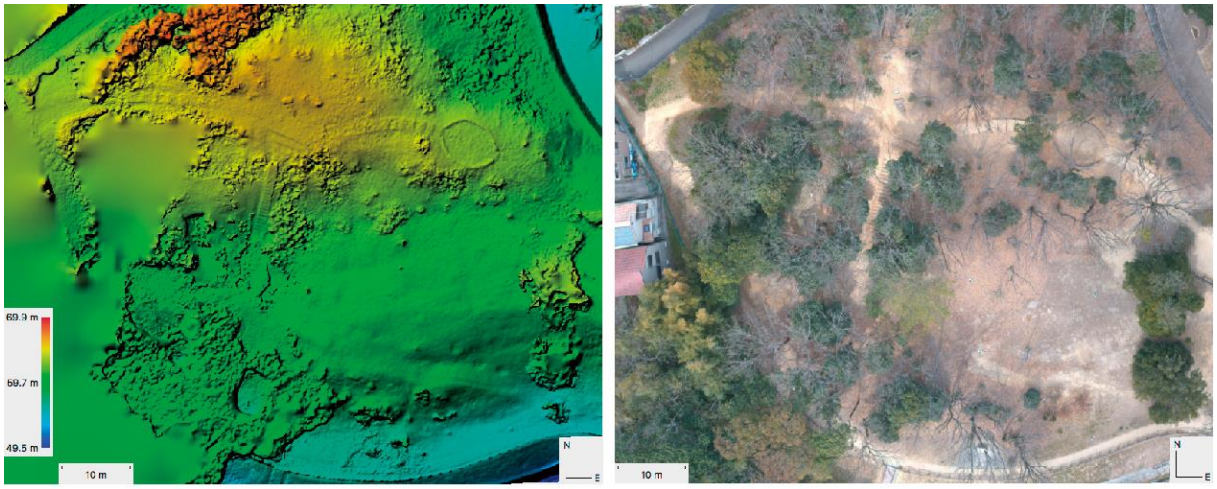
Figure 1: 360 degree photos of Koguchiyama Tomb (taken on February 28, 2018)

Results and Discussion

Table 1 shows the details of each shooting method and the DSM and orthophoto resolution by each shooting method. Shooting methods (a-1, m-1, m-2, and m-3) are shooting from the sky, method (m-5) is shooting from under the tree crown, and method (m-4) is shooting from both. Fig. 2 shows examples of DSMs and orthophotos were reconstructed by SfM. The three-dimensional model generated from photographs taken under the tree crown was georeferenced by being merged with the three-dimensional model generated from aerial photographs. Fig. 3 shows the landscape panoramic simulation images from the Koguchiyama Tomb for the only 5-m DEM and orthophotos by GSI and high-definition DSMs with 0.231-cm (m-5) and 2.46-cm (m-4) resolution and orthophotos with 0.116-cm (m-5) and 1.1-cm (m-4) resolution overlaid on them. The latter image can reproduce the relationship between the axial direction of the Yokoguchi-shiki Sekkaku and the landscape seen from the tomb. The view to the Kongo Mountains (Mts. Nijo, Iwahashi, Katsuragi, and Kongo) and the Kii Mountains (Mts. Mitsuishi, Iwawaki, Mikuni, and Mitsumine) is currently obstructed by the surrounding trees, but during the Final Kofun period, the Koguchiyama Tomb had a distant panoramic view of the Kongo and Kii Mountains over an intermediate view of the nearby hills. The axial direction faces around the west end of the Kongo Mountains.

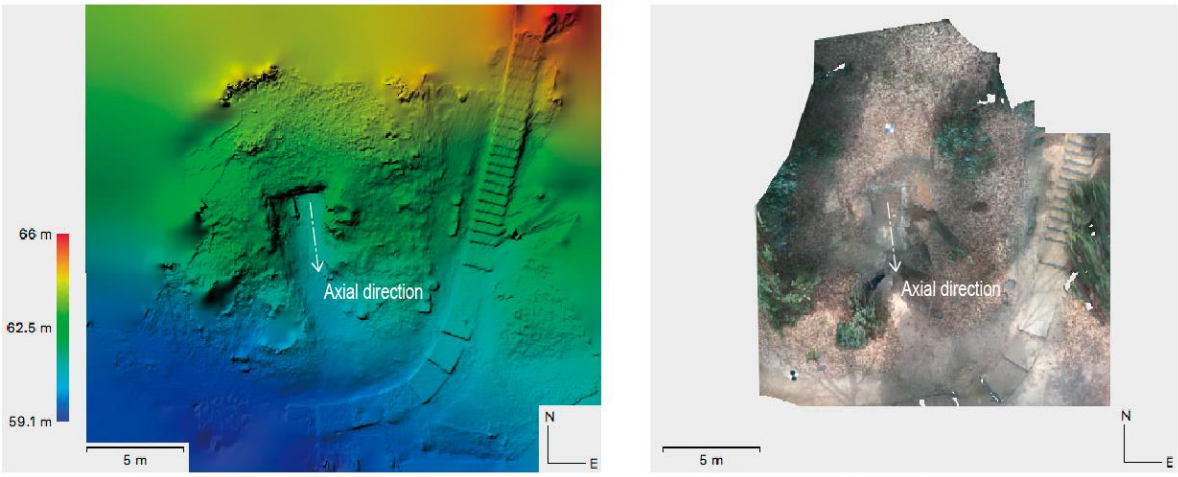
Table 1: List of shooting methods and resolution of DSMs and orthophotos

Method	Auto	Manual				
Direction	Vertical	Vertical			Vertical & Oblique	
No.	a-1	m-1	m-2	m-3	m-4	m-5
Height or Distance (m)	50	100	45	30	1 to 100	1 to 20
Number of photos	70	19	64	33	161	71
DSM resolution (cm/pix)	2.81	4.9	2.41	1.75	2.46	0.231
Orthophoto resolution (cm/pix)	1.59	2.45	1.2	0.874	1.1	0.116



a) DSM (shooting metod: m-4)

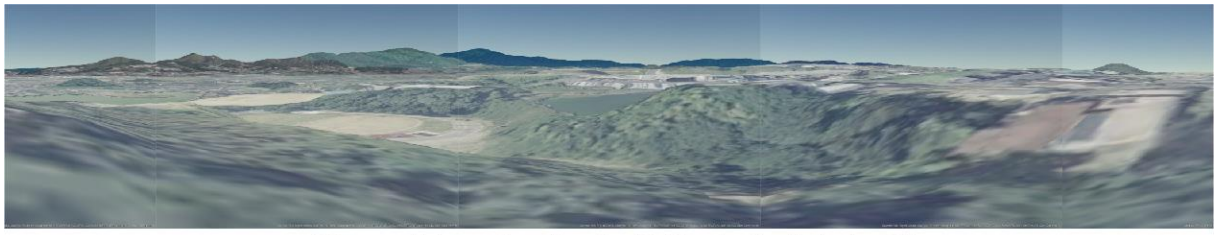
b) Orthophoto (shooting metod: m-4)



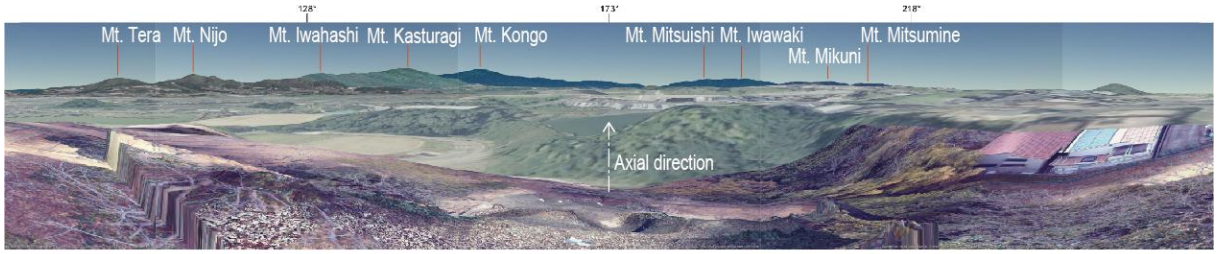
c) DSM (shooting metod: m-5)

d) Orthophoto (shooting metod: m-5)

Figure 2: DSMs and orthophotos by SfM



a) Panoramic image based on 5-m DEM and orthophotos by GSI



b) Panoramic image based on DSMs and orthophotos by SfM (m-5 and m-4) overlaid on 5-m DEM and orthophotos by GSI

Figure 3: Comparison of landscape panoramic simulation images from Koguchiyama Tomb

Conclusions and future plans

We visualized landscapes from the Koguchiyama Tomb with a high-definition three-dimensional model by SfM and three-dimensional GIS for analyzing the relationship of the axial direction of the tomb, and the view. We also clarified the following points:1) By SfM with photographs from the sky and under the tree crown by a small UAV and a cm accuracy GNSS survey, we generated georeferenced DSMs with about 0.2-cm resolution and orthophotos with about 0.1-cm resolution at most, which can express the microtopography of the tomb in the woods. 2) With overlaying DSMs and orthophotos by SfM on a 5-m DEM and orthophotos by GSI using three-dimensional GIS, we can quickly visualize landscapes from the tomb at the Final Kofun period, although the view is now almost totally obstructed by the surrounding trees.

In the future, we plan to visualize landscapes from more tombs of the Final Kofun period by the method proposed in this paper and our recent study [3] and analyze them to clarify the characteristics from a landscape viewpoint.

Acknowledgements

I thank the Cultural Properties Protection Division of Habikino City for their cooperation on GNSS surveys and UAV flights. I am grateful to S. Uchiyama from the National Research Institute for Earth Science and Disaster Resilience for valuable advice on SfM and GNSS surveys. This work was supported by JSPS KAKENHI Grant Number JP 17K18276.

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Notes

1. The structure from motion (SfM) is a technique for estimating the three-dimensional shape and shooting position based on image processing [1]. By taking low-level aerial photos from multiple viewpoints using a small UAV and analyzing the parallax of the object to be photographed, a high-definition three-dimensional model can be generated.

2. Global Navigation Satellite System (GNSS) is used for real-time positioning (latitude, longitude, and altitude) from the radio waves from satellites [5].

3. RTKLIB is an open source program package for standard and precise positioning with a global navigation satellite system (GNSS) developed by T. Takasu, for more details see the following site:

RTKLIB: An Open Source Program Package for GNSS Positioning http://www.rtklib.com/

4. For a method that generates panoramic images in ArcGIS Pro, refer to the following site by Y. Haneda. https://www.wingfield.gr.jp/blog/2018/08/31/p8852/ (3/10/2018).

TRACING BACK THE IZNIK POTTERY WITH PASABAHCE, GLASSWARE COMPANY: THE ROLE OF PASABAHCE IN PRESENTING THE NATIONAL REPRESENTATION THROUGH THE TRADITIONAL IZNIK POTTERY

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1 Özyeğin University

Key words: Iznik pottery, nationalization, Pasabahce, modernization, Ottoman Empire

This article aims to investigate how Pasabahce – a glassware company which was established as a part of National Factory Regime in 1935 in Turkey – presents the national representation through the traditional Iznik pottery inspired products investigating how tradition has been used together with modern forms and techniques. The article will first explain the Iznik pottery and give brief history on the tradition of Iznik pottery. Secondly, it will investigate how Pasabahce embrace the traditional art forms, ranging from early Anatolian civilizations to the Ottoman Empire and it will further investigate the Iznik pottery-inspired pieces, Pasabahce has been producing. Finally, the discussion will be focused on the role of Pasabahce's interpretation and adaptation of traditional forms and techniques, mixing with modern methods and materials with the aim of presentation of national representation while promoting "modern" versions of Ottoman, which will be discussed from the lens of modernism and nationalism in Turkey.

Iznik Pottery: Tradition and the historical development

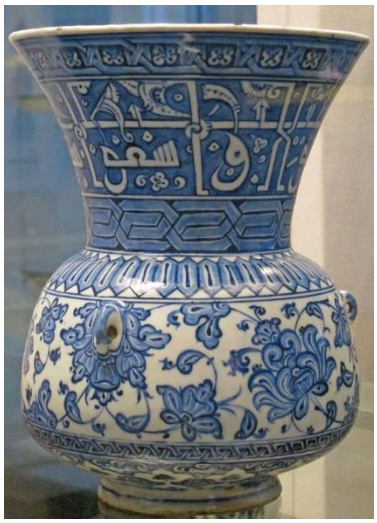

Figure 1: Iznik mosque lamp -1510

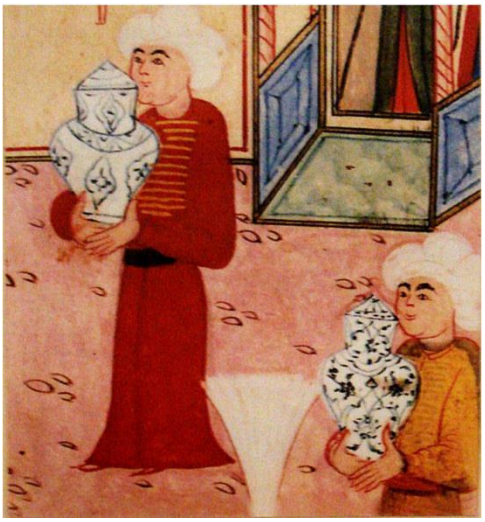

Figure 2: Fruit sellers carrying ceramic jars in front of Sultan Murad III – 1582

Iznik pottery tradition, tracing back to the 15th century in Anatolia ended towards the end of 17th century with the economic decline of the Ottoman Empire. The traditional pieces were mostly cobalt underglaze-decorated tiles and potteries and they were given as precious gifts in the Ottoman Empire (see Figure 2). In 1993, Iznik Training and Education Foundation, found by Prof. Dr. Işıl Akbaygil, achieved to reproduce the Iznik pottery "of the same high quality as their predecessors with the ancient traditional methods of 16th century" after meticulous research on the tradition of Iznik pottery. Today, Iznik pottery with the same techniques as 16th century, has been produced in a handful of studios and also its patterns and styles can be seen on various products.

Pasabahce Glassware Company: Adopting the Tradition

Figure 3: Handmade "The ……. …… Yapraklı Vase" from the …….. Pasabahce "Blue and White on ……Glass Collection".It is an ……..interpretation of Iznik blue and ……..white antique ceramic jar, …..exhibited at the Victoria & Albert ……Museum in London

Figure 4: Handmade Iznik pottery …… patterned ceramic plate by …….. Pasabahce

Figure 5: Manufactured …… Iznik pottery patterned …….. porcelain Turkish coffee …… cup by Pasabahce

Pasabahce company which is one of the biggest glassware manufacturer in Turkey and the world's third largest of producer of glassware was established in 1935 "within the scope of first of industrialization in line with the First Industralization Plan", which enables us to trace back the nationalization movements in Turkey. Apart from the traces of political history of the company, Pasabahce embraces the traditional forms, patterns and production methods especially of the Anatolian civilizations along with the Ottoman Empire. Moreover, Pasabahce has been able to achieve its success by merging the local culture and traditions with modern techniques and styles both in the Turkish and global markets. Its designers have been especially encouraged to work on new technologies and material while studying on the traditional forms and methods.

Pasabahce has been providing a handmade Iznik pottery- patterned products, ranging from plates to Turkish coffee cups and from collection pieces to decorative tiles. Iznik pottery product line has been revisiting the traditional patterns while applying it to modern forms with modern techniques. Moreover, with its "Blue and White on Glass Collection" revisits the legacy of Iznik blue and white with interpretations and adaptations of museum pieces by merging opal glass with Iznik patterns.

The Discussion

Pasabahce's collections, focusing on various traditional forms and methods, have become a part of Pasabahce's product line. It has played an important role in bringing national and traditional representation through the traditional Iznik Tile & Pottery-inspired products as long as many other special tradition-inspired collections. The examples of Pasabahce Iznik inspired products as in the Figures 3, 4 and 5 represents how Pasabahce utilizes the tradition of Iznik Tiles and Potteries in its product line. Figure 3 is from a limited-edition handmade collection, consisting of interpretations of original pieces at museums, and in this handmade collection, instead of using ceramics, the products are produced from opal glass, being in parallel to the expertise of the Pasabahce Company. Figure 4 shows a handmade Iznik-patterned ceramic product while Figure 3 represents a manufactured product, ornamented with Iznik patterns.

With the history of the factory, rooted back to industrialization plan along with the socio-historical background of the company, tracing back to Beykoz Glassware Factory in 16th century, Pasabahce can be discussed from various points of views from Turkish nationalism to working class development and from modernism to globalization. Moreover, as the birth of Pasabahce intersect with the birth of a nation after World War I, the history of the company is also a part of the history of Turkey and the Turkish

nationalism became prominent during the same period as well. This article aims to discuss Pasabahce's Iznik-inspired products from the perspective of nationalism and modernism in Turkey.

As being established as a part of "National Factory Regime" in the area of Beykoy, which happens to be a working class residential area with 3 important factories, one of which is Pasabahce, it has witnessed the class conflict and its developments in the nationalization period of the Turkish Republic. Moreover, with the foundation of the Turkish Republic in 1923 and the adaptation of various "Western-inspired" reforms in the early days of the republic, the modernism, which can be traced back to the Ottoman Empire, were more direct with a new direction as the reforms had been trying to place the old with the new in the newly found republic. Pasabahce, also evolved with the modernization period and adopted the strategy of embracing the traditional patterns and style, leveraging the cultural background, while in search of the modern techniques and materials both as a part of a nationalization background and a market strategy. As it was interwoven in the history of Pasabahce, investigation of the Iznik-pottery inspired product lines of Pasabahce enable us to discuss the relationships of nationalism and modernism.

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GENERATIVE SYSTEMS IN DESIGN: A CONTAINER SETTLEMENT GENERATOR

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Key words: Computational design, generative systems, container architecture

Introduction

Architectural thinking is constantly with the increase in technological capabilities of computational power over the design process. Computational tools for architecture have gone beyond their usual use in representation and practice. Architects use computational support as an amplifier of their cognitive capabilities, to explore various solutions. Development of a computational tool becomes the design problem that requires the integration of technical knowledge. Architects turn into decision makers, who set limits, specify possible actions and define the tool's creation range. This kind of computational design tools also gives the non-expert designers the chance to use their own ideas for less complex architectural problems.

Generative system is an emerging design method that uses the kind of pre-designed toolsets mentioned above, to create alternatives for its users. There are various systems and methods used; genetic algorithms are used in these systems. They are characterized by the transmissions of the characteristics from one generation to the next by genes, which highly involve the evolution of the solution according to the fitness criteria [1]. These algorithms are mainly searching for tools to find the optimized design solution constrained and parameterized by numerous predefined inputs. In some methods performance is the main factor which is capable of producing concepts and stimulating solutions based on models of design conditions and performance criteria [2].

With this understanding, a tool named bBOX is designed as a generative designing tool for non-experts to generate design alternatives for different size of sites under the light of different parameters, which are defined by users due to the condition.

Methodology

bBOX project is a procedural shipping container settlement generator for the people wth immediate housing needs (e.g. migrants, eartquake survivors etc).

The designer needs to arrange the site in the beginning of the generation. The second group of data is defined by the user; such as the site data (boundaries, roads, north direction, etc.) in the visual editor. Application of the site data can be added by downloading Google maps directly to the programme by selecting coordinates.

Then number of people/ container/ budgets needs to be arranged. Generation can be realized with either single data or different variations of data. Two types of container (20 and 40 feet) is used in generation. Needs for healthcare and education utilities are calculated for different scenarios due to the demographic data for the selected city in Turkey. These scenarios are defined for their density as; Disaster (the densest one), Ecological (in between density) and Agricultural (the least dense). Based on the climatic information about the cities in Turkey, various configurations of containers are designed and

pre-defined. With population data, generation is done with those pre-defined variations and decides a number of households. While generating designs, bBOX visualizes the alternatives in the 3D digital environment with a game engine (Unity) and calculates the approximate cost, number of users, and number of containers simultaneously.

Before the program starts to generate, the user must define the topography in the design screen and choose parameters from the side panel (Fig 1).

Figure 1: bBOX topography design screen and parameter panel.

After choosing all the parameters and site design, generation starts shown in the flowchart (Figure 2).

Discussion

In this paper, the main discussion is on the generative tools, and the importance of computational design tools in the architectural design process focusing on a generative program that can be used easily by non-professional users. These tools not only give every user the chance to design, but also help the decision makers to choose simply and wisely for the optimum solution from the generated alternatives. Especially in the case of an emergency, with the help of the introduced tool; bBOX, users can decide the optimized solution at a reasonable cost, without losing time.

Since the tool is using a generative algorithm, the data for Turkey used in bBOX, can be altered with manipulating the rules, varying the site options and adding/using data for different cities or countries. Therefore, with different scenarios, data, and additional panels; generations can be altered and used for other cases.

With the use of generative tools, it can be argued that the roles of the designer are changing. There are various discussions related to the topic of the changing role of designer and the interpretation of these new design language [3] which is another topic, this paper addresses.

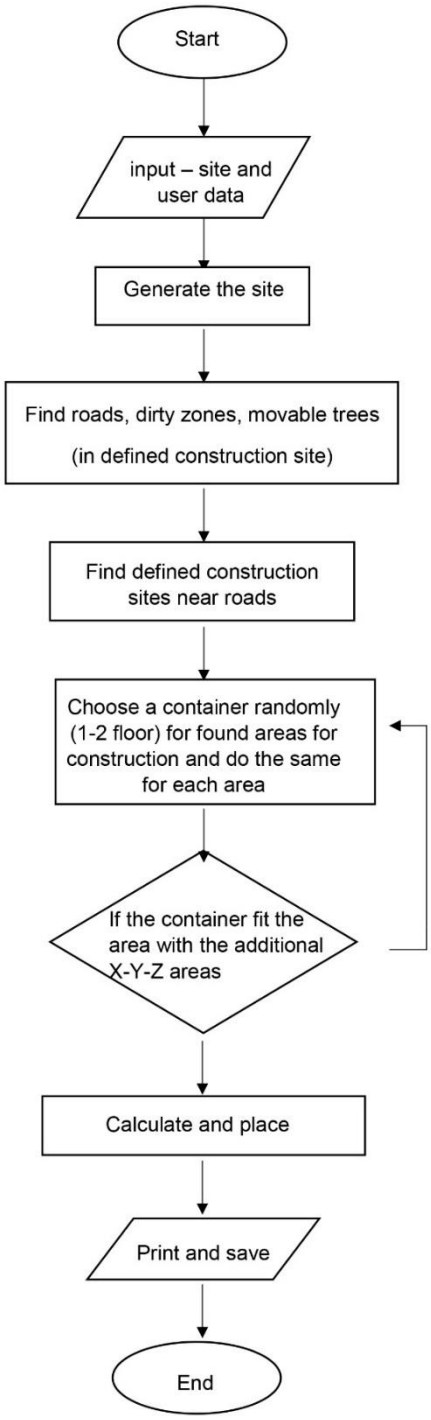

Figure 2: bBOX generation algorithm flowchart

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URBAN AND RURAL PRACTICES

THE CRITIQUE OF CULTURAL CENTERS IN İSTANBUL

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Key words: Culture, cultural centers, İstanbul, urban fabric, identity

Extended Abstract

The numbers of Cultural Centers in the city of İstanbul have dramatically mushroomed in the past three decades. It is observed that all the local municipalities, besides the İstanbul Metropolitan Municipality, recently have attached major importance to building new social centers that add facilities to already existing cultural infrastructure within the urban fabric. Although these new buildings reflect various schemes and contributing to its imagery, their spatial and organizational characteristics bear certain traits or resemblance.

The paper attempts to depict the panorama of the cultural centers in the city, to provide critical viewpoints on the contextual and architectural quality of the buildings added to the city so-called to enrich or support daily life.

Objective and Methodology

This paper aims to discuss and reflect various viewpoints on architectures of Cultural Centers having been built or designed in different scales in different neighborhoods of İstanbul. To do so, the paper will cover the quantitative development of these centers in relation to the existing typologies and their resultant effect on the function, flexibility and sustainability, identity and meaning, materials and details within the changing legal, spatial, economic and historical landscape that city have been undergoing since the turn of the century.

Data in this study was collected through a research project, which is based on collaboration between the university and the municipality of İstanbul, personal practical experience starting from the project conception, social research, architectural project implementation and post-occupancy evaluation of a specific type of cultural centers in the city.

The paper initially explains different building types functioning as cultural or social centers in the city, depicting each one of them within the spatio-temporal background. The first part covers definition and typological development of the cultural/social facilities in different scales; and the reason for the increasing numbers of such centers in the city.

Second part discusses the outcome on the development of cultural centers in İstanbul, by reviewing the results of "Examination of Development of Cultural Centers" report, conducted in 2010, and re-contextualizing the changes which had occurred over the last 10 years. The results include data about the building type evaluated in terms of "quantity", "the methods of the conception of the projects", "site and site selection", "building program and functional considerations", "flexibility and sustainability", "identity, architectural language and expressiveness", "details and materials", and finally their names.

The concluding part encompasses a critical overview of the issue in the light of the personal project experience, observations and the outcomes of the research.

Through the years, social centers with different names such as "Halkevi/ People's House", "SemtKonağı/ Neighbourhood Villa", "HalkEğitimMerkezi / Community Education Center", "ToplumMerkezi/Community Center" have served as cultural centers. These types of social centers,

comparatively, which were designed in modest proportions and limited building programs, mostly performed at neighborhood or town scale. Until the new millennium, Atatürk Cultural Center (AKM), which was built between the years of 1969 and 1977 was the sole Cultural Center in city scale.

As the consequence of the change in existing regulations and policies in 2004 and 2005, it become a turning point for the dramatic increase in number of Cultural Centers in the city. In 2008 the numbers of Cultural Centers operated by municipalities had reached around 80. The "European Capital of Cultural" title given to İstanbul in 2010 accelerated the process. As a consequence, the city has more than 150 Cultural Centers today.

Occupying very special place in the memory of the city but abandoned, AKM in 2008 was torn down for a regeneration project that included a new "Opera House project". According to the project, the existing plot of the center was to be redesigned where the opera will acquire outer qualities similar to the AKM's. Given the significance in meaning of the building, a unique symbol and building type in the city and the country, the paper put special emphasis on the discussion of different views on the new development.

Results

Within the framework of the study, besides literature review and quantitative evaluation of the data gathered, some representative projects were examined; existing cultural center buildings in different neighborhoods of the city were visited and observed, and interviews with some users, occupants and officials from the municipalities were conducted.

Some of the findings show that similarities in the functional organizations and programs of the buildings. This always included an Arts and Crafts Workshops, a Congregation Space (a multi-functional space or a wedding hall) and a study room, where students do homework's and research exploiting the public ICT gadgets.

The reason for constructing such buildings is found to be different than their European precedents'. Majority of the buildings were perceived as buildings compensating for deficiencies in certain functions in the existing urban environment.

Research provoke wide-ranging critical discussions on various contextual issues from site selection to operational details: How should the building program be defined? Is a Cultural Center a place or a building? Who should operate a Cultural Center? Should the architecture of a Center reflect a strong cultural, historical or symbolic identity? Is it possible or right to build a Center for a certain culture in a cosmopolitan city?

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PUBLIC OPEN SPACES IN INFORMAL SETTLEMENT AND RESIDENT'S NEED: CASE STUDY OF ULAANBAATAR, MONGOLIA

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Key words: public open space, informal settlement, ger, yurt, user requirements, ger settlement

Introduction

Mongolians' life known for their nomadic culture is changing to settled'' city'' life. Mongolian traditional yurt, Ger is still part of today's city life as many rural residents have been migrating to the capital city, Ulaanbaatar and settling outskirt of the city. Most of the migrants are unable to afford to settle in an apartment in the city center, they settle in a Ger and create Ger Settlement. Today 60% of Ulaanbaatar city's residents live in private house and 38% of which lives in "Ger"/ Mongolian traditional yurt. [1]

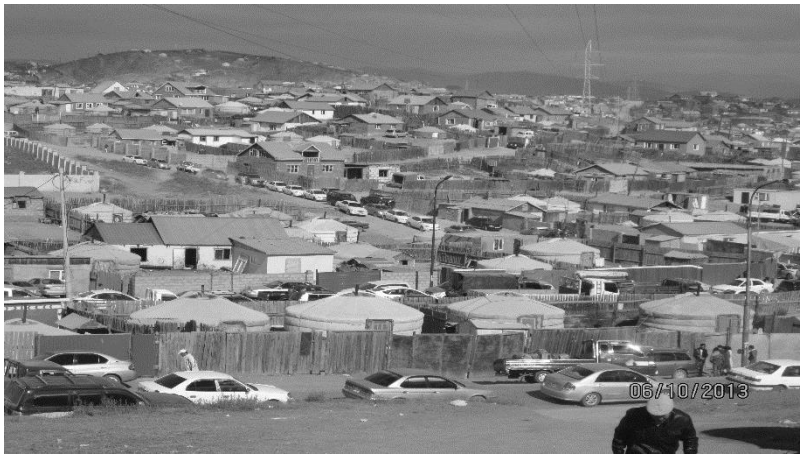

Figure 1: Chingeltei District 10th khoroo's ''ger settlement area''

Lack of City Planning department, government's organization and control of the migration, Ulaanbaatar's 'Ger Settlement" is widely spreading and creating huge problems to the city. Also, lack of infrastructure, unplanned public spaces and no limitation for environmentally responsible development creates an informal settlement, spread "ger settlement" widely without any legal claim. [2] There are no public open spaces such as parks, green areas for these "Ger Settlement" residents. Due to lack of public open space in society, people get isolated from each other and tend not to get help and support. [4] According to Pierce /1978/, the development of public open space requires active involvement of social groups and it is essential to design spaces based on user requirements. Also, organizing events to attract people with variety of interest is crucial for utilizing public open space effectively in certain area and high satisfaction of those users. [5]

Spatial and architectural research or survey has not done yet in this ''ger settlement '' area lead us to make this research.

Methods

Interviews and questionnaires methods are used to get information from the residents. Correlation between public open space and residents' need is analyzed with collected data of interviews and questionnaires.

Observation method is used for study when someone does not want to give interview or fill out survey forms. This method is effective to collect data on site to get correct information for study.

Aim of the study

People socialize with each other through the public open spaces. What kind of public open spaces can residents of Ger Settlement use for their social need?

The main argument of this study is that public open spaces in informal settlement /ger settlement/ display spatial qualities which are not adequately documented and analyzed. The study analyzes relation of public open spaces and needs in these informal, Ger Settlements of Ulaanbaatar City.

Summary and Findings

We identified few places such as water kiosk, wide ended streets, “Ovoo” – traditional Mongolian structure that is built from bulk of rocks on top of hill, near the flood wall, playground near public school as public open spaces in “Ger Settlement”. Water kiosk in ger area is shown in the Figure 2.

Figure 2: Water kiosk as a meeting point

Quality of this public open spaces are measured with comfort, safety and security criteria. These criteria of public open spaces are depending on user’s needs. According to the onsite analysis, common users of these public open spaces were mostly 9-13 years old children and elderly people.

Comfort of the public open spaces in ger settlement is related with concrete flooring, green area, urban furniture and its distance while safety and security are related with lighting of the streets, pedestrian barrier and fences by roads. The graphic below shows relation of user requirement of comfort of public open spaces in ger area.

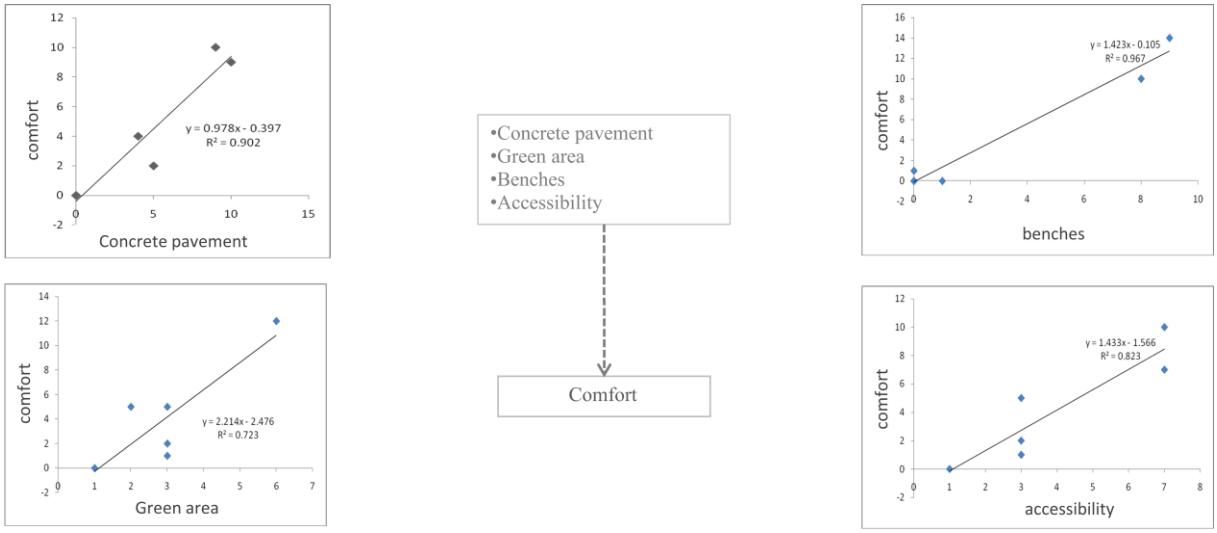

Figure 3: Relation of user requirement of comfort of public open space in ger area

Improvements that could be done on site

After all this analysis and survey, we found that small and easy improvements could be done on public open spaces of ger area. Improvement that could be implemented at water kiosk according to requirement of comfort was showed in figure 3. Surrounding area of the water kiosk could be the main meeting point for young age and elderly residents. It could be improved with adequate paved area and benches.

Figure 4: Improvements that could be done at water kiosk according to user requirements of comfort

Conclusion

Normal regulations of urban area cannot be applied in informal “ger settlement” of Mongolia. Public open space is not planned in this ‘ger’ settlement so that residents are using existing spaces for their social need by changing its initial function. User needs are the key to design public open spaces, but it depends on user's age, gender, social and cultural impacts. Water kiosk, wide ended streets, traditional structure called ‘ovoo’, open area near to flood wall are the typical public open space that can be found in ‘ger’ settlement. Comfort and safety are the main requirement of users of public open space in ‘ger’ settlement. Requirement of comfort of the public open space is related with concrete flooring, green area, urban furniture and its distance while safety and security are related with lighting of the streets, pedestrian barrier and fence from the road. Upgrading their public open space is main wish of users in ‘ger’ settlement. Upgrading with some green area, lighting the streets, urban furniture, paved area and fences to basketball field could be the first steps of improving the socialization of ‘ger’ settlement.

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QUANTITATIVE ANALYSIS OF CHANGES OF THE APPEARANCE OF THE FACADE FOCUSING ON OCCLUDING EDGES AND APPEARING ELEMENTS FROM THE EDGE: TARGETING THE WALKING CASE OF SANNEIZAKA DISTRICT IN KYOTO

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Key words: Facade, 3D-model, Occluding-edge, Appearing elements

Introduction

This study aimed to clarify the characteristics of the change in the appearance of the street accompanying walking of Sanneizaka district of Kyoto, Japan (Fig. 1-a), designated as a traditional building group conservation area in 1976.This street is a famous sightseeing area with traditional townhouses interspersed with shops on both sides of the stone steps (Fig. 1-b). The facade's thickness is irregular, formed by many elements such as roofs, walls, and many items. However, buildings built in later years have façades formed by a few irregularities, such as large walls or glasses. Katsura Rikyu Imperial Villa of Kyoto, which is a Japanese traditional building, forms a facade with some irregularities by plane composition of geese form. When we walk alongside such a three-dimensional facade, the phenomenon occurs in which some hidden elements appear from behind exit corners. Gibson calls the corner behind which other elements are hiding the occluding-edge [1]. We consider these to be important factors for characterizing the changes in the appearance of the streets accompanying walking (Fig. 1-c).

Therefore, we focus on the quantitative changes of occluding-edges and appearing elements from the edge and analyze those quantitative changes. Previous studies focused on the characteristic patterns of the appearances of the street using continuous still images and present those transitions alongside movement of the viewpoint [2]; [3]. In this study, we extract all occluding-edges and appearing elements from behind the edges of each viewpoint using a 3D-model and analyze the change in the number of them in detail.

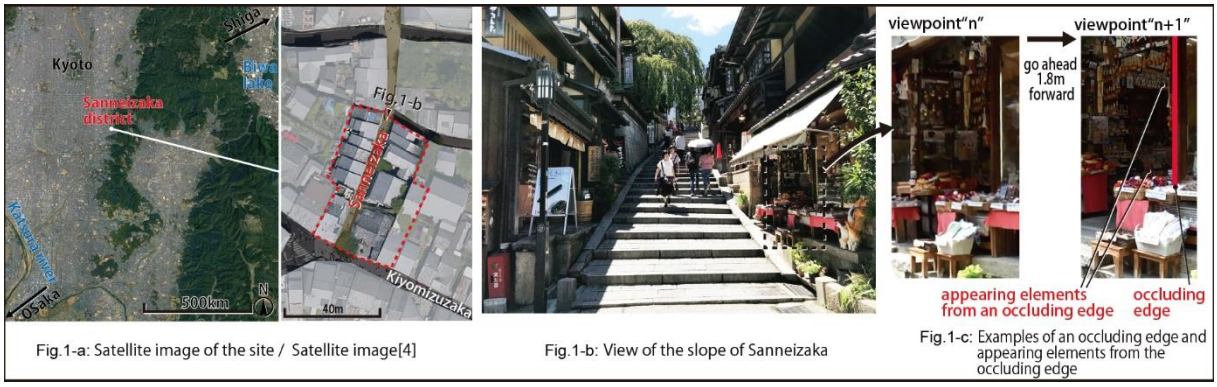

Fig. 1: Photograph of view and examples of occluding-edge and appearing elements

Methods

Our analysis consists of the following steps.

[STEP1] A field survey was conducted with the following methods: (a) photography and filming while walking along Sanneizaka, (b) investigation of the types of elements seen, (c) actual measurement of the dimensions of each constituent element.

[STEP2] Analysis data were prepared in the following way (Fig. 2): (a) Creation of a 3D-model using CAD, (b) setting of viewpoint heights and moving distances, (c) automatic extraction of occluding-edges and appearing elements from the edges of each viewpoint using the CAD program.

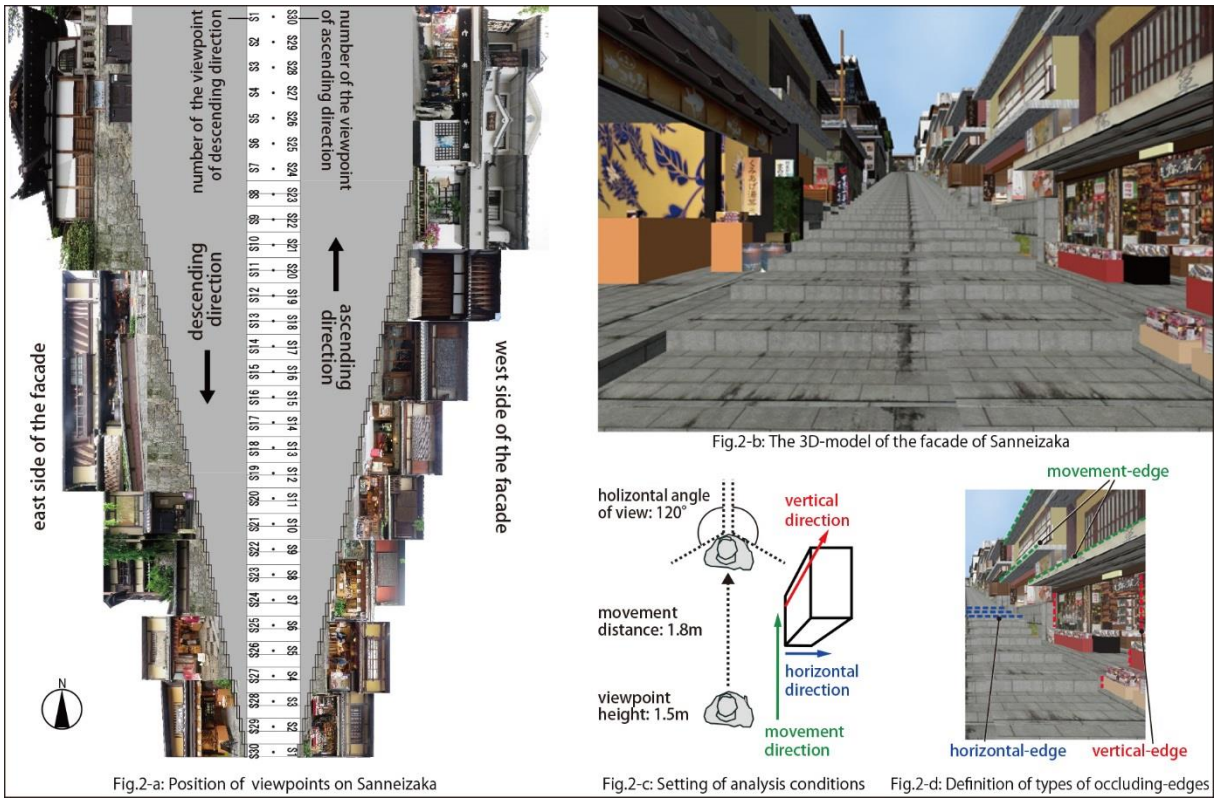

Fig. 2: Analysis conditions

Results and Discussion

The results of the analysis of the change of the number of occluding-edges and the number of appearing elements from behind the edges are shown in Fig. 3. There are 30 total viewpoints of ascending and descending slopes. At each viewpoint, the number of occluding-edges and appearing elements from behind the edges are analyzed for each coordinate axis in the three-dimensional space.

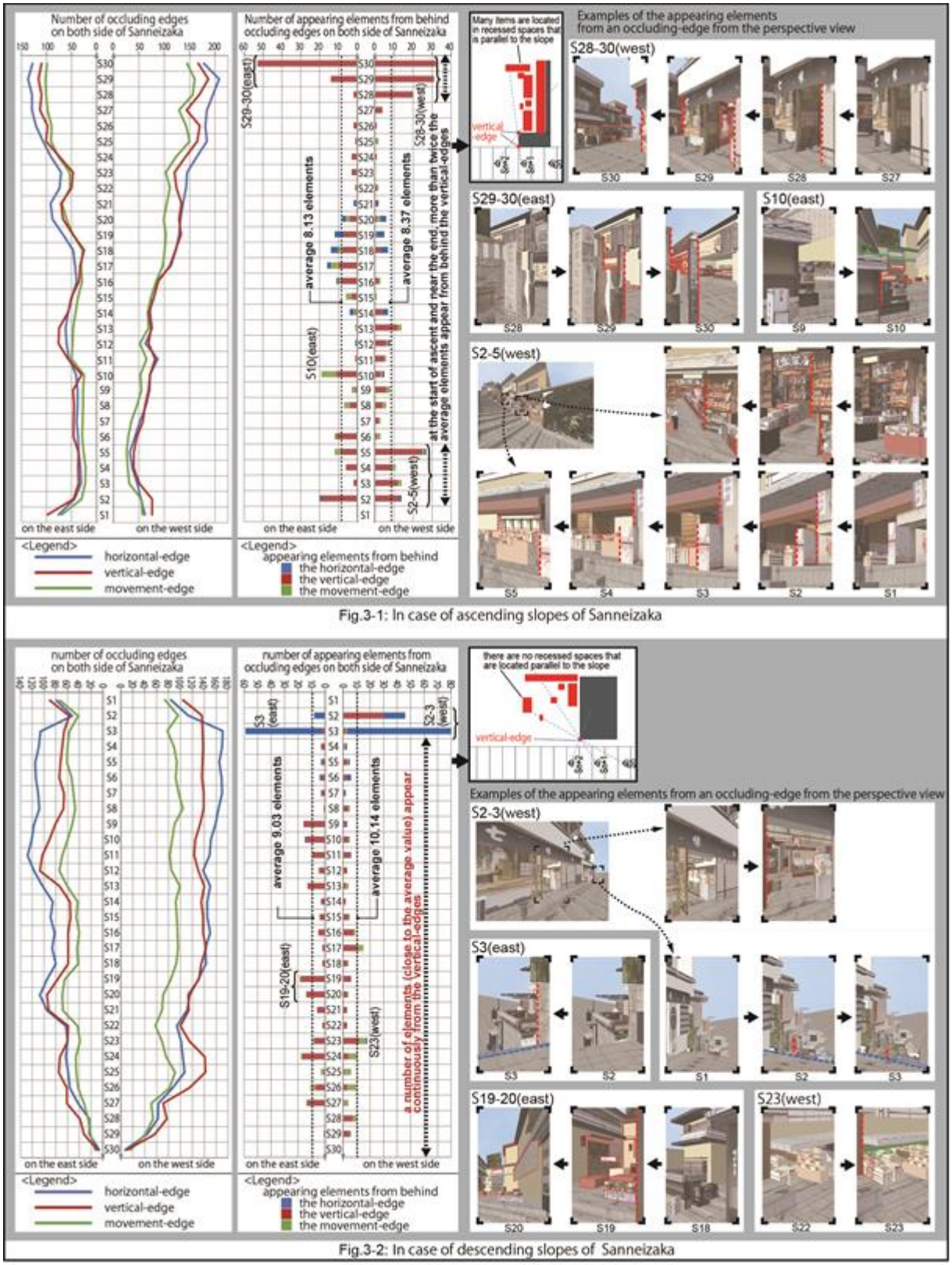

Fig 3: The results of the number of occluding-edges and appearing elements from behind the edges

Focusing on the number of occluding-edges, there are more horizontal-edges, both of ascending and descending, than vertical-edges, which are most numerous after the middle point of the slope. Focusing on the number of appearing elements from the edges, many appearing elements from behind vertical-edges throughout the entire slope. When ascending the slope, particularly at the start of ascension and

near the end, more than twice the average number of elements appear from behind the vertical-edges. Thus, it seems that many items are placed in recessed space that is located parallel to the slope and created by walls and lattice doors that are taller than the height of pedestrian’s eyes. On the east side, there are scenes where many elements appear from behind moving-edges (e10). From this viewpoint, the elements appear from behind a low fence located parallel to the moving direction of the slope, and the change in the appearance of the street isdistinctive. In descending slopes, all the stone steps appear at the same time from the uppermost stage of the slope (w2-3, e3), especially at the point where many elements appear from the horizontal-edges at the start of descent. After that, a number of elements (close to the average value) appear continuously from the vertical-edges. It is thought that there are not recessed spaces located parallel to the slope, such as walls and lattice doors that are taller than the height of pedestrian’s eyes.

Conclusion

In this study, we extracted occluding-edges and appearing elements from the edges of each viewpoint in ascending and descending views of Sanneisaka in Kyoto using a 3D-model, and analyzed their quantitative change with viewpoint movement. The most horizontal-edges are in both of ascending and descending directions. However, many elements appear from behind the vertical-edges, which greatly affects the changes in the appearance of the slope. In ascending slopes in particular, many elements appear from behind the vertical-edges at the start of ascent and near the end. In contrast, in descending slopes, many elements appear at once from the horizontal-edges at the start of descent, but after that, elements appear continuously at an approximately average rate from behind the vertical-edges. The difference in the number of elements appearing from behind the vertical-edges in the ascending and descending direction is related to the presence or absence of space to display many items behind the elements which form the vertical-edges located parallel to the slope.

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CROSS-CULTURAL INTERACTIONS IN ART AND DESIGN

COMPARATIVE STUDY OF BATHS IN THE GREATER KHORASAN ALONG THE SILK ROUTE

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Key words: Contact Zone, Hammam in the Greater Khorasan, Domes, Public Space, Turco-Persian Culture

Extended Abstract

In this research paper, we will discuss the design of selected bathhouses (hammams) in cities such as Semnan, Mashhad, Bukhara, and Samarkand. Despite dating back to pre-Islamic eras in Persia, bathhouses became the pinpoint of many medieval and early modern Islamic cities. Our proposed paper covers the geography of the greater Khorasan as a "contact zone" in which the Persian and Turkic cultures confront and the Silk Route was the main economic vein, which upheld the cross-cultural interactions between these influential cities. The reasons for selecting these cities were not only their locations in the geography of the greater Khorasan from the west to east, but also their different cultural aspects, since Semnan and Mashhad were more Persian, Bukhara, and Samarkand had stronger Turkic aspects in the Late Middle Ages and Early Modern eras. Moreover, the special location of these cities performed a significant role in connecting important trade centers along the Silk Route.

We investigate the idea of the bathhouses (hammams), both as an architectural concept and as a public space. The bathhouses (hammams) provided service for public hygiene and also functioned as a third place for social and cultural interactions. In addition, this urban element had formed the transformation and transition of social and cultural relations. These cities were in close contact with each other. Therefore, we ought to take into account not only the transition of the architectural ideas throughout time but also its transformation in the "contact zones" while being received back. We need to contextualize all given cases based on the "contact zone" where cultures crash and intermingle into each other. Consequently, we face new archi-social values and visual phenomenon. In addition, rituals of purification play an essential role in forming space and visual experiences within the bathhouses (hammams) and beyond their physical territories. For example, bathing scenes in the miniatures, which have been attributed to Kamal al-Din Bihzad, manifests the architecture as the container for an ordinary act in daily life. Miniatures inform the visual concerns of this research to make sense of the common aesthetic qualities carried out in the design of the bathhouses (hammams).

For our study, we carefully focus on four case studies as the prominent bathhouses of the four different cities throughout the greater Khorasan: Hammomi Davudi in Samarkand, Hammomi Sarrafon House in Bukhara, Hammam-i Kooshk in Mashhad, and Pahneh Bathhouse in Semnan. The reason for selecting these four cities lies in their importance as the socio-political centers and also each of them shows the different degrees of the Turco-Persian cultures. This paper has two separate parts: the first part is based on the macro and micro approaches to the history of the greater Khorasan and the economic and political contacts among these cities. This section provides the background for the contextualization of the next section. The second part deals with the detailed architectural and cultural analyses of the domes and the social impact of the public space under the dome in the above-mentioned bathhouses (hammams) from a comparative perspective. Comparative analysis allows us to see the similarities and differences of the public space formation both in relation to the architecture and construction and also to the cultural and social values. Furthermore, visual material is used to support both parts of the paper and visuality, as an unfolding process to celebrate unity and diversity will be discussed. To conclude the article, we show that the space under the dome was formed in constant interaction between the social

and cultural values and the necessity of the architectural construction. This paper not only contributes to the comparative history of architecture in Central Asian but also sheds light on the similarities and differences of bathhouses based on the concept of the contact zone.

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TURKEY'S SELF VISUALISATION IN WORLD'S FAIRS: DYNAMICS AFFECTIVE ON TURKEY'S REPRESENTATION ON EXPOS THROUGH 1851 EXPO TO THE 2015

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Key words: World Expo, Turkey, Ottoman Empire, National Representation, the 1851 London Expo, the 2015 Milano Expo

This article aims to investigate how Turkey and Ottoman Empire visualize itself in these international exhibitions, and furthermore, figure out effective dynamics and understand if those dynamics changed in time on the basis of holistic design approach with the concern of government's designer choices and cultural side highlighted by designers according to their given brief. 9 Expo is selected to investigate further and they were divided into two categories; the Ottoman Era; the 1851 London Expo, the 1867 Paris Expo, the 1893 Chicago Expo, the 1900 Paris Expo, the Turkey Era; the 1939 New York Expo, the 1958 Brussels Expo, the 1992 Seville Expo, the 2000 Hannover Expo, the 2015 Milano Expo. The 1851 and the 2015 Expos were chosen by the significance of being the first and the last world exhibition that the Ottoman Empire and Turkey attended. Other Expos were picked in accordance with the main events happening in the nation and the world.

The article will first explain the concept of the Expos and give brief information about those big world-changing events. Secondly, it will investigate subjected Expos in the context of the world, then in the Ottoman Empire or Turkey. Finally, visualization methods and effective dynamics will be compared to holistically. The methodology here is to investigate the historical and political conjecture of the expo, architectural planning, art elements, visually emphasized cultural elements, events held in the pavilions, etc. In order to investigate in a wider scale; the Specialized Expos, the Horticultural Expos and the Triennale di Milano which are also part of the Bureau International des Expositions were left out in the consideration and only the World Expos are investigated.

The Expo

Figure 1: 1933, 1937, 1939, 1958 Expo Posters

Since the beginning of the World Exhibition history, participants aimed to gain worldwide recognition which would bring power and economic opportunity in a peaceful context [1]. The Expos were reflecting the world that they were organized and also because they were aiming for 'the firsts', they always stepped forward and presented the future. Indeed, on a larger scale, every Expo has been affected by

the social, political and economic events of the world [2]. Likewise, all the attendee countries agenda and domestic happenings reflected on the Expo they were participating. Accordingly, dynamics of the Expo is full of variables and the Turkish nation's incredibly undulatory history was also reflecting itself on these worldwide events vigorously with the presented artifacts, architecture, and organization. The expos become the biggest platform for national branding, cultural exchange, exchange of ideas, development of cooperation, public debates, diplomatic encounters, and so many shows. As the world exhibitions are state-sanctioned, all these attitudes towards the expos subjected above, correlate the government's main attitude to the foreign and domestic policies for that era. The power and recognition are the two main reasons to participate in the expos for all the nations, and Turkey was not an exception. They show the ways that Turkey had sought power to make itself an important space in the big league.

The Ottoman Era: The Great Exhibition, The 1867 Paris International Exhibition, The 1893 World's Columbian Exposition, The 1900 Paris Exposition

Figure 2: The Ottoman Empire Pavilion in the Great Exhibition

Turkey and the Ottoman Empire sought power and recognition with creating trading opportunities and presenting itself to the West and other big countries. When searching for Turkey's visualization past, certain kinds of dynamics occur periodically. Even though the Ottoman era and the Turkey era are different in so many manners, recurring patterns are easy to point out. Four Expos which investigated further (1851, 1867, 1893, 1900) shows Ottoman face, turning to the West. It gradually affected the Empire's presentation method. The Empire learned how to appeal to that nations and pick the way of showing Eastern architecture and culture gradually adding more and more Western substance, till in 1900 imitations that had been used in previous pavilions becomes only inspirations from the Ottoman's local architecture. When considering all these; we have to know that, the Ottoman Empire generally hired foreign architects, possibly to show the Empire with Western eyes, and as Western as possible. Furthermore, the strong culture of Ottoman's influenced by this evolving too. Even though it never left itself to the totality of Western culture, it just acknowledged Western culture as high culture.

The Turkey Era: The 1939 New York, The Brussels World's Fair, The Expo '92, The 2000 Hannover Expo, The 2015 Milano Expo

Later, with the Turkish Republic, in the 1939 and the 1958 expos, the aim wasn't trying to present 'the incredible other' to the powerful countries anymore, it was now presenting something similar; a modernized, secular nation that standing in between East and West while giving value to art [3] [4].

These two expos were both giving the signal that the Republic didn’t want to join the wars happening in that era and seeking support from the Western countries for that matter. Thereafter, the 1992 expo, Turkey’s willingness to join the opening of the European Single Market was the main incentive. This time neoliberal Turkey wanted to present tourism opportunities to lure more tourist in addition to the trading ambitions that the republic had since the beginning of the Expo history [5]. Lastly, the 2015 expo, along with all those similar ambitions, Turkey sent mixed messages to the world. Firstly, the government didn’t want to attend to the expo feeling raw about not being elected as the host of the subjected expo, then upcoming dates, the government changed its mind and decided to attend [6] with a modernized version of the traditional Turkish style, alongside chauvinistic showing of their power; having the 5th largest pavilion in the expo.

The purpose of this article is to understand what expos are mirroring and how they are putting it in the context of the architecture and visual art through Ottoman to Turkey era. Finally, as it seems all these changing attitudes towards expos are a reflection of official and internal attitudes towards world events and with these changes of directions the design concept changed parallelly. The result is that the country's foreign policy is using expos – as a reflex - as a visualization tool of its relationship with the world, especially mainstream west.

Figure 2: Turkey Pavilion in 2015 Milano Expo

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BEING REGIONAL THINKING MODERN: RESIDENTIAL ARCHITECTURES OF GEOFFREY BAWA AND SEDAD HAKKI ELDEM

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Key words: Regional, residential, modern architecture, postwar, Sri Lanka, Turkey

1. Introduction and Methodology

Modernist discourse is still in pursue of new perspectives on various implications of modern architecture around the world, focusing on the aspect of local/regional interpretations after the second world war [1], [2]. This study puts this pursue into the center while looking for any correspondence between different regional practices. Two regions from two different continents, two architects with a profound architectural work and appraisal, Geoffrey Bawa from Sri Lanka and Sedad Hakkı Eldem from Turkey, are selected for the discussion of how local architecture was reformed via modern architecture in order to create a new visual language for the nation state. The evolution of their architectures derives from various resources, however/whilst their relation between the state and the upper class through their architectural language indicate close resemblances in terms of architectural historiography.

Among the vast literature on Bawa and Eldem, it was important to draw a frame for a better understanding of the political-social-architectural state of Sri Lanka and Turkey in the first place. So, in order to concretize the overlapping aspects in the storyline of both architects, their residential practices between the period 1950-80 are scrutinized. This way we are aiming to observe in their approaches the similarities between site specific interpretations of the local modern while producing for the state and the social elites.

2. Debates on Modern Architecture Between 1950-80 And Regionalist Tendencies

The architecture of the Sri Lanka was shaped by the early Buddhist period (Sinhalese) architecture as well as years of Portuguese, Dutch and British invasions. In 1948 when Ceylon (Sri Lanka) gained independence, social and economic life changed. The period between 1948-1970 Sri Lanka population increased from three million to seven million and it caused need for shelter both urban poor and the new middle classes [3]. The need for housing for the first time in the history of Sri Lankan has become a problem of the state in these years; therefore, Urban Development Authority (UDA) was established in 1978 to provide planning and development of important urban areas. Within the independence of Sri Lankan, government wanted to build a new Parliament house at the end of various attempts and discussion that reflects the new and modern national character of Sri Lanka. In 1982, the Parliament house was designed by architect Geoffrey Bawa who was regarded as a central figure of regionalist modernism architectural movement [4].

On the other hand, the late Ottoman period and the new Turkish republic founded in 1923 affected the architectural production.

Turkish modern architecture went through roughly four phases from the beginning of the 20th century to the 1980s: the first phase maintained rather eclectic and Turkish revivalist language, the second phase explored the then-contemporary 'international style', the third phase turned to monumental elements and materials, and the fourth phase reflected the postwar architectural tendencies [5]. What mostly criticized by the architects of the 1950-80 period in Turkey was the 'borrowing' of the Western

architectural language without appreciating the intellectual context behind or neglecting the regional characteristics of Turkey.

Eldem, meanwhile, conducted a thorough research on the traditional Turkish house. He published articles in architectural magazines on how the 'appropriate' Turkish architecture should be. Going along well with the state's architectural representation, he designed several embassy buildings in Ankara, as well as Aga Khan Award for Architecture winner public building in İstanbul.

3. Two Regions, Two Architects: Eldem And Bawa

3.1. Bawa

Geoffrey Bawa is one of the prominent architects who contributed the Sri Lankan modernism in architecture. He was inspired from the culture and landscape of the Ceylon and created his own style and named himself as a tropical modernist. In his designs, European modernism and traditional Ceylonese design elements are interwoven; pitched roofs, large overhanging eaves, internal courtyards and verandas which are used as passage one space to another with using local materials. Bawa's architecture created fluidity between indoor and outdoor spaces and long continuous vistas.

His domestic architecture got attention of the new middle and upper middle class who wanted to be close to the city center and the elite schools. Sinhalese Buddhist architecture, Dutch courtyard house and Muslim row house traditions became main features of the new style domestic architecture with Bawa [6]. His office Number 11 in Colombo and Ena de Silva house were seen as pioneers of this regionalist modernism in 1970s.

Bawa produced 17 housing units between 1950 and 1980. When the regions where these dwellings are built are examined, it is seen that 14 of them were built in Colombo city and the remaining 3 were in Galle, Upcot and Nikarawetiyada cities. The owners of the houses built by Bawa are lawyers, doctors, director, manager, parliament members. This also points out the concentration of the social elites in Colombo and its vicinity.

3.2. Eldem

Coming from a wealthy and aristocratic family, Sedad Hakkı Eldem was educated in abroad and in Turkey; he worked with Auguste Perret and Hans Poelzig, and he also met Le Corbusier [7]. Through his professional life between 1930s and late 1980s he designed various types of buildings, exploring new ways of architectural representation of the national-traditional discourse.

Another important aspect of his influence on Turkish architecture of the aforementioned period can be tied to him being a professor in the Mimar Sinan University along with his massive work on traditional Turkish house.

Eldem was involved in 28 residential projects between 1950 and 1980 including an embassy residence. Through the realised 23 projects, Eldem's architectural language in terms of interpreting and applying the traditional residential characteristics can be traced; especially since almost all of these designs were built or planned in the Bosphorus line, where a specific site protection law passed in the parliament in 1983. The majority of Eldem's clients in these projects belonged to the social elites, mainly industrialists or intellectuals [8], [9]. His attitude to maintain the familiar traditional architectural elements with the use of modern techniques is discussed through the clients, the Bosphorus, and formation of Turkish modern architecture.

4. Discussion

In this section, the architectural approaches of Bawa and Eldem, who combined the traditional design elements with their own architectural understanding, although they lived in two different geographies between 1950 and 1980, were examined through their residential architecture (Fig.1 and Fig.2). How the traditional architectural elements are reflected on the plan schemes, façade and interior spaces will

be analysed comparatively with the tables on the class-based origin of the house owners. Despite the differences in architectural language as well as the political conditions of the two countries, what Bawa and Eldem accomplished in terms of the establishment of a regional and modern architectural language through their residential designs for social elites shows a similar pattern.

Figure 1. (a) View from central courtyard and pool from house for dr. Bartholomeusz and Geoffrey Bawa’s formal office (original names), now the gallery cafe in Colombo, (b) and (c) Traditional and tropical design details from Geoffrey Bawa’ house and office Number 11 in Colombo. (Photos: Pınar Sunar Bükülmez, 2014).

(a) (b) (c)

Figure 2. (a) Haraççı House front view sketch by Eldem (Tanju, 2009), (b) and (c) Rahmi Koç Villa exterior and interior views. (Photos: Ahmet Ertuğ, in Bozdoğan, 2005)

5. Conclusion

Bawa and Eldem had chance to observe and practice modern architecture in their own country and abroad. Their studies and designs on how the architectural language of the country could/should be directly affected the architectural production of their time. The high profile of their clients points out the actual denominators of the regional modern architecture of their countries. Moreover, the locations of their projects reveal the visibility of their language, enabling to promote their attitude towards not only architectural design but also a certain lifestyle that would form the society.

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CULTURAL ACTS OF DWELLING

LIVING STYLE AND SPACE COMPOSITION: DOMA AND AŞHANE WORK SPACES IN TRADITIONAL FARMHOUSES OF JAPAN AND TURKEY

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Key words: Japanese farmhouse, Turkish farmhouse, dwelling, culture, lifestyle, workspace, doma, aşhane

Introduction

This study aims to analyze doma and aşhane earth-floored workspaces in the traditional farmhouses of Japan and Turkey. Doma is the most basic space that traditional farmhouses of all regions in Japan have. Even Japan's ancient pit dwellings were made up of only doma space. Many vital activities of farm and household have been performed in there. On the other hand, in the Eastern Black Sea region of Turkey, aşhane is also a multipurpose space where household activities have been performed. Throughout the study, the location of doma and aşhane spaces in plan section, their relation with other spaces, structural characteristics and functions will be examined respectively.

Methodology

The research has started with on-site visits to several farmhouse museums for the research's Japan part. During site visits, the spatial organization, plan layout, material and structure of houses have been examined considering regional diversity and climate. Photographs were taken on-site visits and interviews were conducted with authorities of museums. A literature review including construction reports for drawings, folklore materials depicting the traditional lifestyle were made and data were collected.

For the research's Eastern Black Sea part, literature research was made. Text materials and drawings were obtained from written sources and architecture offices. Photographs were taken on-site visits to traditional houses in the region and interviews were conducted with their households.

Research Area

Considering similarity of climate values (air temperature, precipitation, and relative humidity), the former house of Yamashita Family from Tsuruga, Fukui Prefecture (transferred to Open-air Museum of Old Japanese Farmhouses, Osaka) and Mithat Sezgin Pirim House from Ortayol Village, Rize have been chosen for the case study.

Location of Doma and Aşhane Spaces in Plan Section and Their Relationship with Other Spaces

The main entrance of houses opens into a large-earth floored area of doma and aşhane in both cases. They provide a transition to the other spaces of the houses. Both spaces are lower than the rest of the house, figuratively humbler part of the houses.

In the Japanese house, doma space has united with the kitchen area and has a strong visual connection with the living area and stable. There is also a bath space located in the corner of doma, screened in by a simple wooden partition.

On the other hand, while aşhane space in Turkish house makes a connection between the rooms and hayat space, there are partition walls between each unit considering privacy and cleanliness to isolate other spaces from the smoke.

Characteristics of Doma and Aşhane Spaces

Aşhane and doma spaces of Japanese and Turkish farmhouses' floor is made of packed clay mixed with charcoal and bittern, swept with a straw broom.

Considering the cold winters of Fukui Prefecture, the walls are made of earthen wall. In Turkish house, houses are adapted to topography and aşhane is the space having a direct connection with the ground that is why back and side walls of aşhane space are made of stone.

Both spaces' original examples do not have a ceiling, and the structural members of the roofs are visible.

In doma, cooking hearth called kamado is made of clay or stone, and cooking pots fit into the flues. Cooking hearth seen in Fukui house is one of the smallest types of hearth. Adjoining the doma, a sunken hearth is located in the kitchen space. A hook is suspended over the sunken hearth used to hang a kettle or pot. (Fig. 1)

In aşhane, fireplace is surrounded by fine cut stones in the middle of space and a hook is suspended over it in the earliest examples. Later on, fireplace is located next to the back wall with a chimney over it. (Fig. 2)

Fig. 1 Doma interior view of Japanese farmhouse.

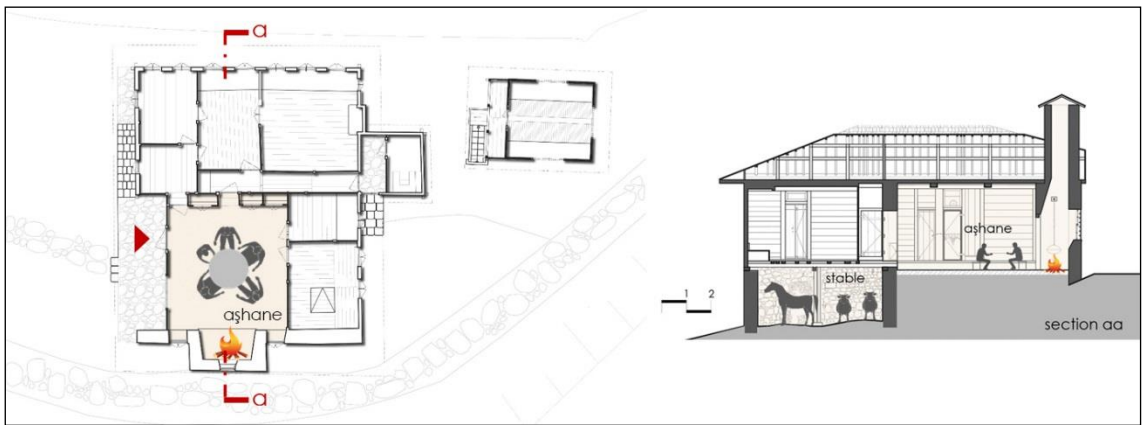

Fig. 2 Turkish house plan and section.

The Function of Doma and Aşhane Spaces

Many vital activities of farm and household such as food preparation, cooking, eating, gathering, farmwork are performed in doma and aşhane. While the household gathered around the fireplace sitting on the raised floor of the kitchen (Fig. 1), Turkish people sit on stools and eat together around a round tray. (Fig. 2) In addition to daily activities, entertainments after farmwork and formal occasions such as wedding, funeral, religious festivals, and entertaining guests are performed in aşhane. In Japanese farmhouse, formal occasions are performed in the most formal room of the house.

Conclusion

1. The main entrance of both farmhouses of Japan and Turkey generally opens into doma and aşhane. They both provide the transition to other spaces and humbler part of the houses.

While doma has an open space plan, aşhane has a more closed plan considering privacy and cleanliness.

2. Both doma and aşhane have an earthen floor and their original spaces do not have ceiling, and the structural members of the roofs are visible.

While doma has two fireplaces: cooking hearth for cooking and heating, and sunken hearth for eating, gathering, and heating, aşhane has one fireplace both for cooking and heating. Both cultures have a hook suspended over the sunken hearth in doma and fireplace in aşhane. (Fig. 1) (Fig. 2)

3. While farm and household activities are performed doma, both farm, household activities, and formal occasions are performed in aşhane. While the household gathered around the fireplace sitting on the raised floor of the kitchen, Turkish people sit on stools and eat together around a round tray.

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A STUDY ON TEA CEREMONY FOR OSAKA MERCHANTS AND THEIR SPACES OF TEA PARTY

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Key words: tea ceremony for Osaka merchants, space of tea party, Osaka merchants, regionality, spirituality, thatched hermitage

Introduction

The purpose of this research is to reveal the regionality and spirituality of tea ceremony which Osaka merchants in the early modern period did. At the present time, most of the studies on tea ceremony are about wabi cha, which is the traditional tea ceremony style, and about thatched hermitage, which is the special space only for wabi cha. On the other hand, there are fewer studies on the tea ceremony of Osaka merchants and on the space they used for it. Therefore, it is meaningful to clarify the characteristics of the tea ceremony of Osaka merchants and about the space where it took place. This study describes how Japanese citizens accepted "tea ceremony" as part of the traditional culture at that time. This study makes important connections about the past so people can think about the current issue of how to pass Japanese traditional culture on in the future.

Methods

Through a survey of literature, I researched about general characteristics of tea ceremony among Osaka merchants. Additionally, I sought information about who Osaka merchants enjoyed their tea ceremony with and made a correlation diagram. Concerning the space for tea ceremony of Osaka merchants, I checked a variety of books and collected the plans of merchant's residences which had rooms for tea ceremony.

General characteristic of tea ceremony of Osaka merchants

Through the literature survey, it became clear that Osaka merchants were generally more interested in instruments for tea ceremony rather than in tea ceremony itself, however, tea ceremony was an important part of social interactions among Osaka merchants([3], p.508-511).

Discussions about tea ceremony of Osaka merchants

Using a correlation diagram shows that not all powerful merchants did tea ceremony. Additionally, the diagram indicates that the merchants enjoyed tea ceremony also with their relatives and their friends who had no influence on their business. These facts mean that the main reason why many Osaka merchants took pleasure in having tea ceremony is that they enjoyed tea ceremony itself.

The number of Osaka merchants who did tea ceremony increased in later 18th century. Former Osaka merchants generally made relationships with so-called tea masters in Kyoto or Nara, but in 18th century, the inner community seemed to develop more. In the 17th century, several tea masters began to play an active role in Osaka. These people might have influenced the progress of tea ceremony in Osaka.

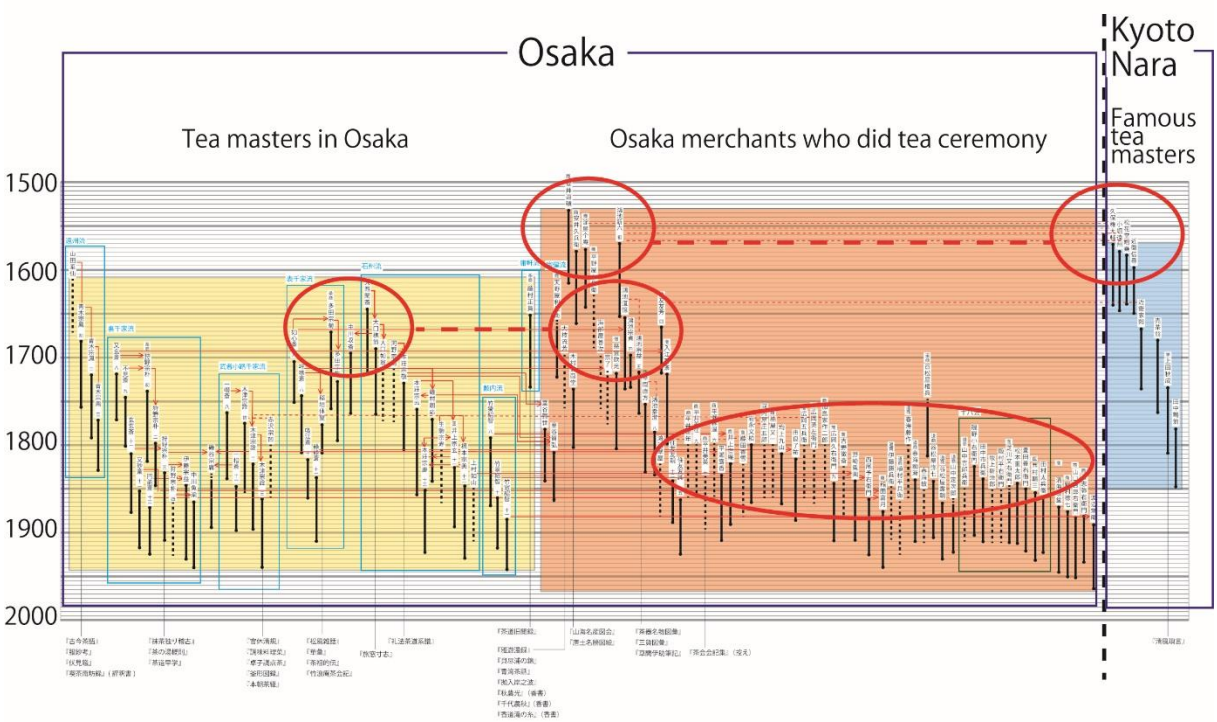

Figure 1: Correlation diagram

Discussions about the space for tea ceremony of Osaka merchants

Through the research, some interesting characteristics were revealed. First is the relationship between dwelling and the space for tea ceremony. In all the plans of Osaka merchant’s residences, the space for tea ceremony was included inside the dwelling. The significance of thatched hermitage is its independence from the home residence. It is usually built as an independent building and the inside is designed to be set apart from daily noise ([6], p.239-240). Therefore, the space for tea ceremony of Osaka merchants seems to be closer to daily life than traditional one.

A second point is relationship between outside and inside of the building. Almost all of the plans have gardens in front of the space for tea ceremony, which may indicate that the gardens are part of the preparation for the ceremony. Thatched hermitage also has a dedicated garden roji for approach ([6], p.234-235). However, the space for tea ceremony of Osaka merchants have verandas between gardens and the space for tea ceremony. This shows that Osaka merchants used the space for tea ceremony as a traditional reception room rather than as a room only for tea ceremony.

The final point is the proper use of ordinary and extraordinary tea ceremony. Documents shows that Osaka merchants did not have any thatched hermitage at their daily residence but in their holiday houses ([3], p.509). Osaka merchants seem to use the space for tea ceremony depending on the purpose of tea ceremony. Tea ceremony in their residence was used for daily and casual tea ceremony, and thatched hermitage was used in their holiday houses for formal ceremonies.

Figure 2: Plan of Sumitomo family’s residence in Bunkyu era ([4], p.28-29)
(Red part: space for tea ceremony, Brown part: veranda, Green part: garden)

Conclusions

Many master tools of tea ceremony were gathered in Osaka because of its regional characteristic, and because Osaka merchants had a lot of interest in collecting master pieces. They regarded tea ceremony as their important social means of interacting.

Concerning the space for daily tea ceremony of Osaka merchants, they mainly used the room for reception purposes. This is different from the space for wabi cha. On the other hand, when holding more formal tea ceremony as a place of social intercourse, merchants used more traditional thatched hermitage instead of the usual rooms included in their residences. The characteristic of wabi cha is its advanced spirituality. However, in the process of spreading the culture of tea ceremony, its characteristic changed from extraordinary to ordinary along with the quality of space for tea ceremony.

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WILL THE NEXT GENERATION LIVE IN GERS? CHILDREN'S PERSPECTIVES ON THE FUTURE OF MONGOLIAN TRADITIONAL DWELLINGS IN URBANIZING TIMES

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Key words: Mongolian architecture, ger districts, urbanization, children's participatory drawing, visual research method

Introduction and methodology

Mongolia is known as the land without fences, renowned for its nomadic herder population inhabiting the countryside. Today, between 25 and 40 percent of the population in Mongolia continues to follow a traditional nomadic way of life [3], moving seasonally with their animals to pasture areas. Central to this lifestyle is the traditional Mongolian mobile dwelling, the ger— a round-shaped portable wooden structure supported by two central poles and covered with felt layers made of sheep wool.

In recent years, uncertainty about climate conditions (such as an increase in dzud phenomena [10]), shifts to market-oriented economic models, and state policies that neglect rural area development [1], have driven many rural families to move to the city and leave behind their traditional lifestyle. Attesting to the trend of rapid urbanization, the population of Ulaanbaatar, Mongolia's largest city and capital, has more than doubled since the 1980s [3]. Currently, the majority of herders that move to the city allocate in "ger districts." However, recent studies targeting residents of ger districts show that young adults prefer modern, wooden or brick houses and apartments to traditional gers [2,6]. These attitudes are reflected in the changing landscape of Mongolian architecture. In rural areas, 78% of the population still lives in gers compared to the city where 60% of the urban population lives in ger districts and 40% in apartments [6].

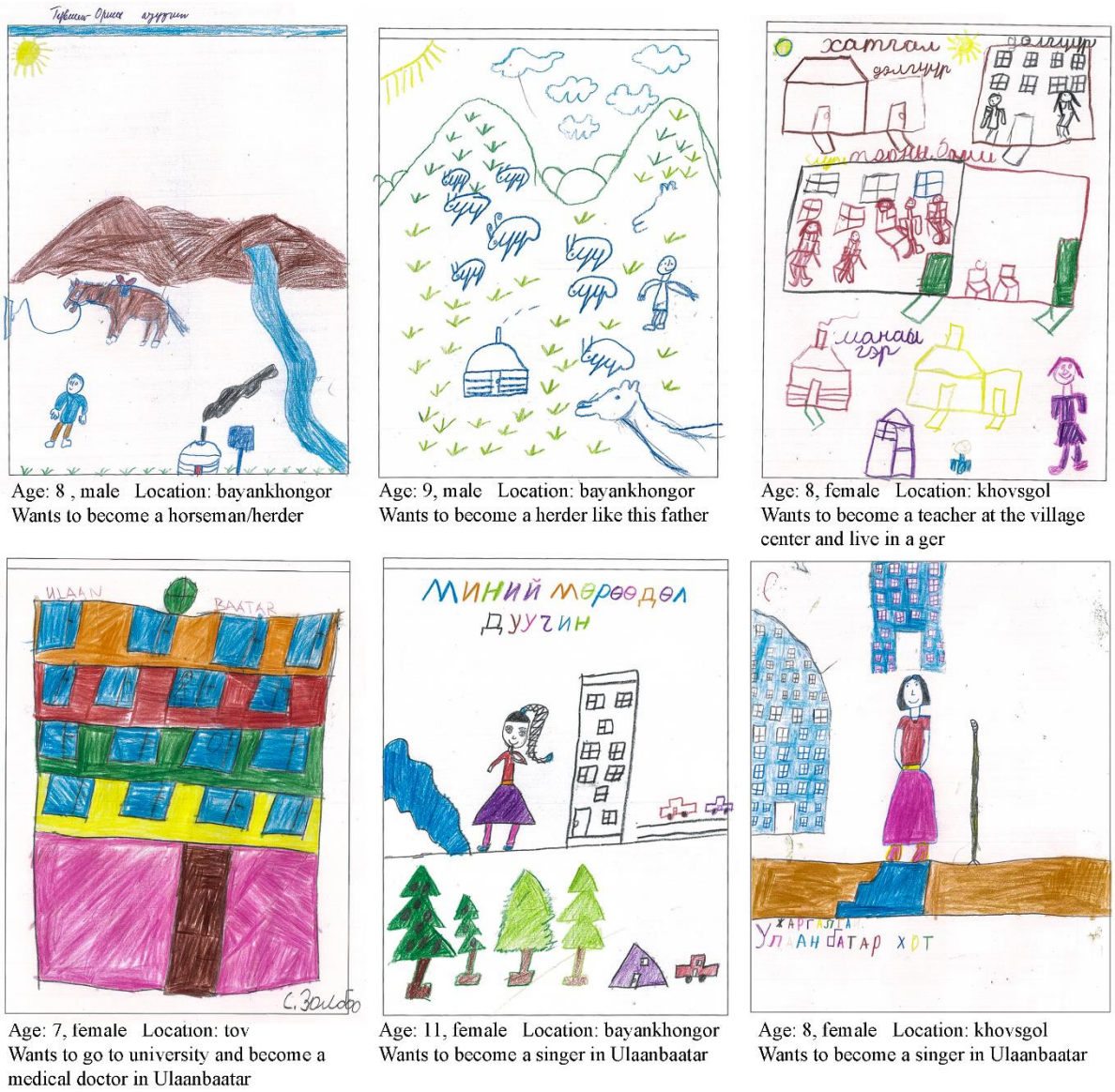
Focusing on the perspectives of rural children still living in gers, this study examines the circumstances facing Mongolian herder families and the cultural shift from rural to urban lifestyle. Through children's participatory drawing [4,5,7,9]; semi-structured interview survey conducted with children and parents; and participatory observation, this study analyzes the present challenges for the future of traditional Mongolian lifestyle and architecture through the perspectives of children, the next generation. At the crossroad of traditional rural life and urbanization, these children are key stakeholders who will shape what Mongolian architecture will look like in the future.

Interviews were made with 40 nomadic households and 25 finished drawings were collected in three different provinces (June-September, 2018). Children from 5 to 13 years old [7] were asked to draw a picture [4] of where they want to live and how they picture their future homes (including the house itself and immediate surroundings, such as village center, countryside or city). Questions about their future dreams/expectations were asked, and children provided explanations about their drawing to support its interpretation. By engaging in the process of drawing their future, children are not passively reflecting a given reality, but actively defining their reality [4].

Data and findings

Children's drawings (see Fig.1) were analyzed for the presence or absence of symbols that indicate an affinity or attraction to traditional architecture and lifestyle as well as an urban or countryside landscape.

These symbols could include: ger, mountains, rivers, lakes, animals, pasture land, or, detached house, apartment buildings, roads, hospitals, schools and urban infrastructure.



Age: 8 , male Location: bayankhongor
Wants to become a horseman/herder

Age: 9, male Location: bayankhongor
Wants to become a herder like this father

Age: 8, female Location: khovsgol
Wants to become a teacher at the village center and live in a ger

Age: 7, female Location: tov
Wants to go to university and become a medical doctor in Ulaanbaatar

Age: 11, female Location: bayankhongor
Wants to become a singer in Ulaanbaatar

Age: 8, female Location: khovsgol
Wants to become a singer in Ulaanbaatar

Figure 1: Examples of children’s drawings

Previous research suggests it is likely that more permanent dwellings like detached houses and apartment buildings, will replace ger’s in the future, especially in urban settlements [2]. Corroborating this, our study found that most of the children picture their future in urban settlements. Although economic conditions, gender, and geographical isolation (more or less contact with urban areas) influence children’s perspectives, less than ¼ of the child participants drew gers to represent their ideal future living environment. The majority of children in this study showed little attachment to living in a ger, many even commented that it is very cold during winter and uncomfortable. It’s possible that most of them would choose to live in houses or apartments in the future, and ger would be an option only if economic conditions are not favorable. If this is true, much of Mongolia’s traditional architecture could be lost in the future.

Our study concludes that although it seems that now the majority of children envision their future in urban areas living in apartments, some still dream of a place where modern infrastructure and traditional dwellings meet. This suggests that there remains a desire among the next generation to preserve traditional Mongolian ways of life and culture. Therefore, in order to foster the resilience of traditional

Mongolian culture and attend to the changing needs of future generations, we suggest that policies to support nomadic households should be prioritized. Future research and collaboration with architects, planners, and communities is needed to better understand the necessities and adjustments that could be implemented in the traditional ger towards meeting the present needs of their residents while maintaining elements of traditional Mongolian architecture.

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FROM TRADITIONAL TURKISH HOUSE TO MODERN DWELLING: EXAMINING THE TRANSITION PERIOD THROUGH 'SOFA' AND 'OFFICE' SPACES

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Key words: Turkish house, modern dwelling, sofa, kitchen office, spatial configuration, dwelling change

Introduction

Firstly, emerged in western countries (USA and European) towards the end of 19th century, modernization has spread worldwide and caused profound changes in many aspects as well as the life styles and the way we build. New ways of living required new ways of building – and most importantly, dwelling. A brief examination through the history of residential buildings in Istanbul reveals changes in the spatial configuration at the turn of 20th century, under the effects of modernism.

Being the traditional dwelling type, Turkish house has been prevalently built in Anatolia before modern period, which is characterized with its separated multifunctional rooms. Rooms (Tr. oda) are connected by 'sofa' space, which is used both for circulation and gathering. After the Enlightenment, mainly starting from the 19th century, Turkish culture under the rule of the Ottoman period experienced Westernization, which had a major effect on the modernization period of Turkey as well as other eastern countries. Early apartment buildings in Istanbul, emerged in Galata-Pera region in the mid-19th century and Yeldeğirmeni on the Asian side at the turn of 20th century, seem to be indicating an important change in favor of modernism.

Although Turkey was excessively affected by modernism, the shift from traditional Turkish house to modern dwelling types has not been completed instantly. One of the most significant indicators of a transition process is the continuation of 'sofa' usage until 1950s. There are some researches that investigate 'sofa' spaces continuing in modern Turkish dwellings [1,3]. Even though 'sofa' usage began to fade away and transformed into corridor the early apartment buildings creating a new, modern spatial configuration, 'sofa's existence continued for a while, which is one of the concerns of this paper.

Beside the endeavor for preserving the old ways of living, a new understanding of Turkish dwelling was emerging in the existing political, ideological, sociological context. A conspicuous sign of this modernization process in terms of spatial configuration is considered as service spaces (kitchen and related spaces). Kitchen and other service spaces used to be located on the ground floor in traditional Turkish house, while main living spaces were located on the upper floor. The most important change in modern period is the emergence of a space called 'office' (Tr. ofis), which mostly functions as a transition space between kitchen and dining room. This space has its roots in western cultures – mostly American and English kitchens, which have a very similar type of space (functionwise and locationwise) that is called 'pantry'. By examining the volumes of Turkish architecture journal Arkitekt (1931-1980), 'office' space has been found in many dwelling examples, which were built from 1929 onwards. Examinations on various other sources did not result with any dwellings that were built before 1929 and included such a transition space. This fact interestingly matches with Bozdoğan's statements on a sharp disengagement process from the old towards a nationwide modernism starting with 1930s [2].

The aim of this study is to scrutinize the transition period from traditional Turkish house to modern dwelling and present a section of this period via projections on spatial configurations in a determined

time span of the modern period. In order to reveal the qualitative and quantitative aspects of this transition and cultural interaction, dwelling examples of the modern period are examined with the criteria that they contain both ‘sofa’ and ‘office’ spaces (Fig. 1). Findings that are mentioned above led this study to focus on the time period between 1930 and 1950.

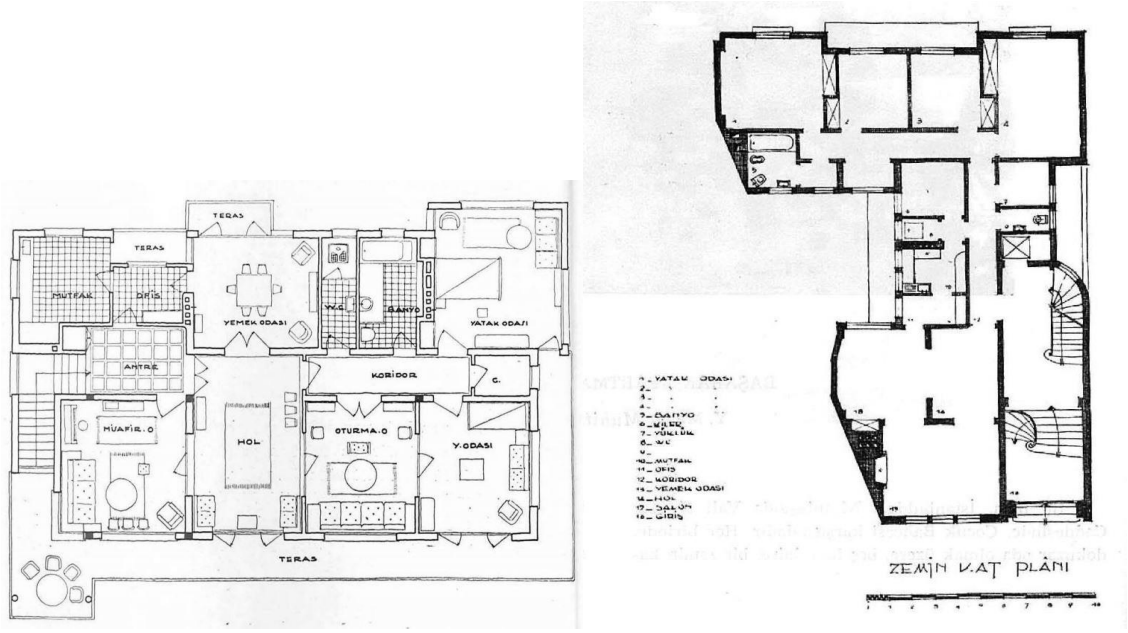

Figure 1: Dwelling examples which contain both ‘sofa’ and ‘office’ spaces (on the left: A villa in Suadiye, 1939, on the right: Başaran Apartments, 1949). Source: Arkitekt Vol.1939-01-02 (97-98) & Vol.1949-03-04 (207-208).

Research Method

Within the scope of the study, housing will be analyzed in three parts: Firstly, a brief history of Turkish house and its basic features will be given. Secondly, modernization period of Turkey and its reflections to housing design will be explained. And lastly, Turkish dwelling in modernization phase will be examined through several examples, in relation with both Turkish tradition and the history of modernism in western countries and its effects on housing.

When the history of housing in Istanbul is considered, housing types may be classified in four groups: 1. Traditional houses, 2. Modern villas with traditional traces, 3. Apartment buildings with traditional traces, 4. Modern apartment buildings. Within the scope of this paper, categories 2 and 3 will be observed, which represent the transition period. While analysing housing design examples, spatial layouts of various housing units (apartment or villa / detached house) will be examined in terms of service spaces (kitchen and related spaces including ‘office’) and circulation (‘sofa’). Links and flows between these two systems will be tracked via activities occuring in spaces, since their functions tend to change depending on context.

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VERNACULAR & CONSERVATION & SUSTAINABILITY

THE ASSESSMENT OF SUSTAINABLE CAMPUS LIFE; CASE OF ISTANBUL TECHNICAL UNIVERSITY

Authors: Yurdanur Dülgeroğlu Yüksel[1], Gülçin Pulat Gökmen[2], Ahsen Özsoy[3], Handan Türkoğlu[4], Meltem Baslo[5]

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Key words: sustainability culture, campus life, environmental awareness

Abstract

Sustainability studies have gained great importance in recent years and mostly focused on various environmental scales. As one of these environmental typologies, university campuses have been studied in terms of green campus and quality of life. This paper deals with the current approach of Istanbul Technical University and its evaluation from the students' and academic staffs' point of view. This study is a continuation of Sustainable Cultural Indicators Program (SCIP), created by Prof. Dr. R. Marans, of the University of Michigan in the US. It aims at evaluating new sustainability initiatives for the University Campus. The original method used is a longitudinal study. This paper aims at applying the same methodology to a Middle-Eastern country university, namely Istanbul Technical University. Some cultural differences are expected to result. The results showed some similarities and some variations between a Western and a Middle-Eastern culture, in terms of the attitudes and behavior of students and academicians towards sustainability issues. On this venture, the ready-made questionnaire designed by Prof. Marans had to be revised several times in order to fit into and put into practice for the Turkish university culture context.

To better understand what ITU student and staff do and what they think about the sustainable campus, a survey is conducted. The questions in the questionnaire are adapted to ITU campus users 'culture, after discussions within the Turkish team and the exterior foreign partner. It is conducted through ITU website online. The return rate was much lower than anticipated, yet the research team thinks it is still valuable for exploring in depth, existing activities, practices and reactions, and emerging attitudes toward the most significant problem of the new century: sustainable living and working environments. This work, therefore, can yield information to feedback as knowledge to ITU campus programs in future by reshaping and furthering needs and demands by its users, regarding food consumption habits, green transportation, waste prevention, and environmental protection ideas and strategies.

The value of the research is two-fold: i) compare the existing programs with the expected ones within the campus, ii) compare campuses from 2 different cultures in view of their users. While the first one has the potential of becoming integrated into ITU's ongoing green campus project, if the survey is repeated at certain time intervals; the second one can be testing the methodology fit in two different contexts. Thus, the attitude and behavior of campus users can be analyzed as to how and why they differ from each other.

The questionnaire's main body has the following components: each one will be shortly explained after being named. Transportation group of questions involves the frequency of travel in the campus by means of car/shuttle/bike/scooter, etc.; users' frequency and mode of travel between home and workplace and study place at ITU; adequacy of campus roads for walking and biking. Regarding waste production and energy conservation, awareness questions were asked in the relationship of these with the buildings on campus. Among they are; recycling glass, plastics, paper, and electronic devices are included.

The knowledge of the users was also tested for disposing hazardous materials, protecting rivers, recognizing invasive plants, etc. Their behavior of using fertilizer or commercial herbicides, pesticides in their homes and installing rain gardens in their homes; their knowledge and application of grass fed beef, fair trade food, organic food, etc. were also asked. Climate change, users' degree of its awareness of its significance for the future, and potential consequences are searched. Users' other opinions and activities about sustainability were investigated as to what they s/he has done to promote sustainability, environmental protection, energy conservation, open space preservation, public/non motorize transportation on campus.

Particularly regarding ITU campus, users' level of information, strength of their efforts to promote cycling and ITU green campus project, to promote food from sustainable sources are inquired into. Their sources for the ITU Green Campus project, if they have participated into use of rainwater for irrigation, in the support of electrical vehicles for minimum carbon, and in the separation of dangerous waste in their environments were all questioned to end up with if the students and the staff would like to build a bicycle town.

Finally, the users' perspectives and projections on how to develop and popularize ITU Green Project, via social clubs, forming awareness committees, assessing projects on sustainability issues in classes, or organizing panels and festival, and developing interactive websites, etc. will be learnt. Such information will constitute the knowledge base for campus planners and administrators for a better and sustainable future for the campus users and the city at large.

A COMPARATIVE THERMAL PERFORMANCE ANALYSIS OF TRADITIONAL TIMBER FRAMED BUILDINGS IN TURKEY

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Key words: Traditional timber frame buildings, heritage, thermal performance, comparative analysis, Turkey

As a specific element of cultural heritage, traditional buildings are the significant interdisciplinary research topics in history, social sciences, archeology, and architecture. In architectural manner; documentation, conservation and preservation of traditional buildings are fundamental working area for years. Furthermore, energy performance of traditional building has recently been a crucial issue. Energy performance of heritage buildings becomes an interesting topic for researchers and practitioners [1]. In Venice Charter, it is indicated that conservation of a monument should be based on facilities by making use of this monument [2]. One of the profitable ways to conserve traditional buildings is to supply user comfort conditions in current function and/or propose an idea for adaptive reuse. Considering this, it may be an operable solution to improve energy performances of traditional buildings. This attempt also helps sustainability of cultural, architectural and historic values of traditional buildings by handing them down to the next generations.

Turkey has unique architectural characteristics regarding traditional buildings. Timber framed constructions are the majority of traditional buildings in Turkey. Related to the characteristics of these buildings, conservation and transfer of them to future generations is very important for sustainability of cultural heritage [3]. Timber framed traditional buildings in Turkey may be classified in four groups in terms of material usage: timber framed – airgap, timber framed – adobe infill, timber framed – brick infill and timber framed – stone infill. The infill material is changed depending on climate, topography, culture and economy [4].

The study aims to investigate thermal performance of traditional timber framed buildings' skins by comparing two different types' examples in Turkey: brick infill and stone infill. Within the scope of this study, Sivrihisar / Eskişehir and Fındıklı / Rize are selected for case studies. These districts are one of the specific locations where significant examples of traditional timber framed – brick infill and timber framed – stone infill buildings are placed. For thermal performance evaluation, the criteria of TS 825 -the national standard for thermal performance analysis in Turkey- are applied.

The study adopts mixed-method strategies based on qualitative and quantitative research technics. Firstly, a comprehensive literature review about traditional timber framed building is made and examples are selected for case studies. For thermal performance analysis, U-Values are calculated according to TS 825. Then, U-Values of case studies are compared regarding the determined values.

In TS 825; Sivrihisar is located in the 3rd climatic zone. The appropriate U-value for external wall of buildings in this zone is specified as 0.48 W/m²K. And Fındıklı is placed in the 2nd climatic zone. The appropriate U-value for external wall of buildings in this zone is determined as 0.57 W/m²K [5]. For thermal performance analysis, U-values are calculated according to the standard. To evaluate thermal performance of case studies, the area of walls is assumed 12 m2 (height: 3 m, length: 4 m). The U-Values of the case studies are shown in Table 1.

Table 1: Case studies

Location	Sivrihisar, Eskişehir	Fındıklı, Rize
Construction Type	Timber framed – brick infill	Timber framed – stone infill
Case Study	 Zaimoğlu Mansion (Source: sivrihisar.web.tr)	 Murat Hacaloğlu Mansion (Photo courtesy: Seda N. Alkan)
The layers of skin	Wooden frame (0.20 m)	Wooden frame (0.20 m)
	Brick infill (0.20 m)	Stone infill (0.20 m)
	Lathing (0.015 m)	Plaster (0.001 m)
	Plaster (0.001 m)	Wainscot (0.05 m)
U-Value of the external wall	0.7252 W/m²K	1.7898 W/m²K

The results of U-Value calculations express that thermal performance of these building skins does not provide comfort conditions thermally. However, it is required to be applied thermal insulation for the building skins of both Zaimoğlu Mansion and Murat Hacaloğlu Mansion depending on the results of U-Value calculations. Due to these buildings have cultural, historical and architectural values; thermal insulation should be applied to inside of the wall to conserve the original design of building façade. Moreover, organic insulation materials may be more suitable considering sustainability. Because of this proposal requires comprehensive research, the evaluation of thermal performance of the proposal may be analyzed for further studies. Nonetheless, widespread effects of the proposal over the long term and other performances should be evaluated as further studies.

The expected outcome of this study is to open a discussion about skin performance of traditional timber framed buildings considering them as architectural heritage culturally, historically and socially. This attitude may be a proper approach for contributing to sustainability of cultural, social, architectural and historic values of traditional buildings.

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DESIGN PROPOSALS FOR THE VISUAL AND AUDIAL PRIVACY OF PATIENTS IN INTENSIVE CARE UNITS

Authors: Hatice Gamze Sarıtaş[1], Sezin Tanrıöver[2]

1,2 Bahçeşehir University, Turkey

Key words: hospital, intensive care units, patient, privacy, visual, audial patient, comfort, control

Privacy is a phenomenon of environmental psychology that regulates relations of a chang-ing self (Davis and Palladino 1997). Privacy is defined as "selective control" when an individ-ual wishes to interact with, or leave social groups at times. (Irwin Altman, 1975). The feeling of privacy is a phenomenon that changes from one society to another according to culture, education and gender. Therefore, while some societies can experience privacy in public spaces, some other requires defined visually, audial closed and confined areas. The bounda-ries are treated and evaluated as intimate, personal, social and public way according to nature of relations and the distance between individuals.

In architecture, interior and exterior definitions physically expressed as public and intimate. The subject in the space forms the boundaries between the interior and the exterior (Colomi-na, B., 2011). In this way, public spaces are defined where the person has a private space and social interaction. Healthcare environments are one of the most demanding among public spaces, but they are also the most difficult of all to define and control privacy. Healthcare en-vironments are designed to serve the public to provide, protect and sustain human health re-gardless of religion, language, gender, status. Different from other public spaces, the flow of life is diverse in healthcare facilities. In order to provide and protect patients health and com-fort, patients' privacy and control over the environment should be ensured. (Ergenoğlu, S., 2007).

Studies indicate that many factors need to be handled as physical and psycho-social ele-ments in order to have a positive effect on the healing process of the patient. The physical elements include noise, indoor air quality, lighting, furniture, materials; and the psycho-social elements cover the issues of privacy and comfort in the context of visual, audial privacy. The physical elements are formed primarily to meet the basic spatial needs of the function, per-sonnel and patient. Psychosocial needs are satisfied by providing, protecting and sustaining the privacy and control of the patient over the environment. Patient's environment consists of visual, audial and tactile boundaries, which often very hard to control in healthcare environ-ments during the treatment. In the absence or insufficiency of these boundaries, patient privacy and comfort cannot be fully achieved.

Studies have shown that patients' major complaints related to privacy in the healthcare envi-ronments, is visual privacy (Barlas et al., 2001) Insufficiency of visual boundaries between patients; insufficient or over illuminated treatment environment causing visual comfort were pointed out as situations in which visual privacy and comfort were violated. The secondary problems reported by the patients were the insufficiency of audial boundaries and patients exposure to noise during their treatment. The first of these is the absence or insufficiency of boundaries controlling speech privacy of the patients and the sounds of patients groan in pain; and the other is the noises of medical devices; conversations between personnel; and the noises occurring due to the nature of the materials used on architectural surfaces. (Ulrich et al., 2004)

According to researches, privacy becomes a critical issue when hospitalization prolonged, especially in multi-bed units. This problem especially occurs in intensive care units in stays more than 24 hours. Although the patient's privacy is proven to be particularly important in multi-bed wards, there are no

guidelines for evaluating the privacy and comfort levels of the patients and standards focusing on this issue. Studies are limited to surveys or observation methods. (Gifford, 2002). Although the importance of the built environment for patient privacy is claimed evident by Ulrich et al. (2004) in the compilation of related scientific research, it is also stated that very few studies directly examine the role of interior design for providing, pro-tecting and sustaining patient privacy. Therefore, additional research on this spastic topic is required.

This study was developed to contribute to the limited literature on this topic. Study aimed to question the visual privacy which is mentioned as the major problem in the healthcare envi-ronments for the privacy of the patients in the intensive care units.

According to data from the Ministry of Health of the Republic of Turkey 2018, the number of intensive care units beds in public, private and university hospitals in Istanbul are 7216 as shown in Table-1. In the light of these data, it can be said that the issue of privacy directly af-fects a large number of patients adult, child and newborn.

Table-1: Total Number Of Beds In Intensive Care Units , In Istanbul,2018

2018	Ministry of Health (Public)	Private Hospitals	University Hospitals	
Adult	1463	2817	133	4413
Chıld	155	104	12	271
Newborn	507	1999	26	2532
Total	2125	4920	171	7216

Study focuses on the intensive care units of two hospitals with the largest bed capacity in Is-tanbul, Marmara University Training and Research Hospital (university) and Siyami Ersek Thoracic and Cardiovascular Surgery Training and Research Hospital (public). The intensive care units of these hospitals are examined with regard to visual privacy. The existence visual boundaries and their physical characteristics were studied.

658-bed Marmara University Training and Research Hospital with 32-bed intensive care unit (Figure 1); and 600-bed Siyami Ersek Thoracic and Cardiovascular Surgery Training and Re-search Hospital (Figure 2) with 25-bed intensive care unit serving for critically ill and post-surgical patients. In both of the hospitals flexible dividers curtains (figure 3) were adopted to provide and protect the visual privacy of the patients, which were reported as poor spatial di-viders by the patient relatives and care providers. The results of the first part of the study will be shared thoroughly.

In the second part of the study, physical properties of the boundaries used to Provide and pro-tect patient's visual privacy, will be discussed in terms of audial privacy. At the end of the study design proposals regarding these boundaries will be proposed for general patient group.

Figure-1: Siyam iErsek Thoracic and Cardiovascular Surgery Training and Research Hospital /Intensive Care Unit Plan

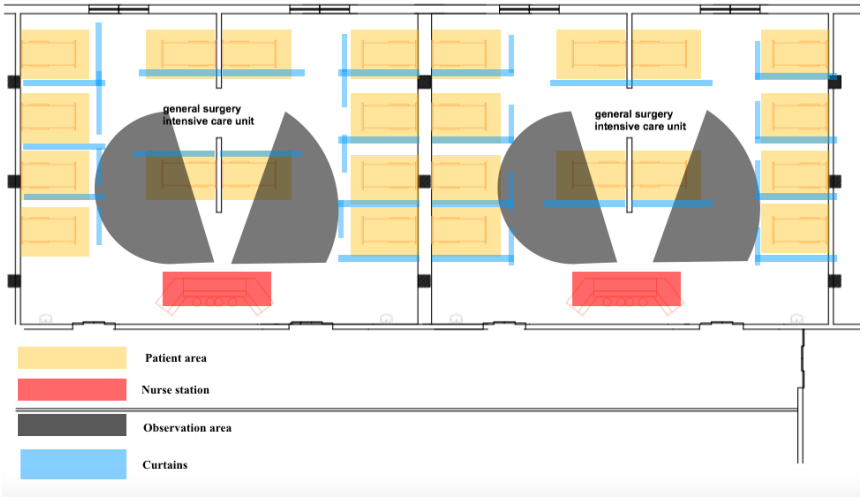

Figure 2. Marmara University Training and Research Hospital Intensive Care Unit Plan

Figure 3: Views from Marmara University Training and Research Hospital Intensive Care Unit

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DESIGN PROJECTS

INTERNATIONAL ASSOCIATION OF SILKROAD UNIVERSITIES
POSTER SESSION

Mongolia University of Science and Technology
Conf. Hall E-604, Central Library, MUST, Ulaanbaatar / Mongolia
June 24-26, 2019

Rino Uema/Mukogawa Women's University

Names of designers: Rino Uema

Phone/Fax: +81-0798-67-4513

e-mail: aiuema.121150@gmail.com

The bath house

Forest in the campus of Mukogawa Women's Univ./2018

This project is a work for design assignment in 1st grade of master course. The theme of this assignment is Architecture designed by light and shadow. Therefore, I determined the concept of my own work Bathe in shadow.

This architecture is a special space only for bathing, and no artificial illumination lighten the interior or exterior, but only natural light and shadow give some meanings for spaces in the architecture. The purpose of this architecture is to wake up quiet emotion in each person after the experience of its space.

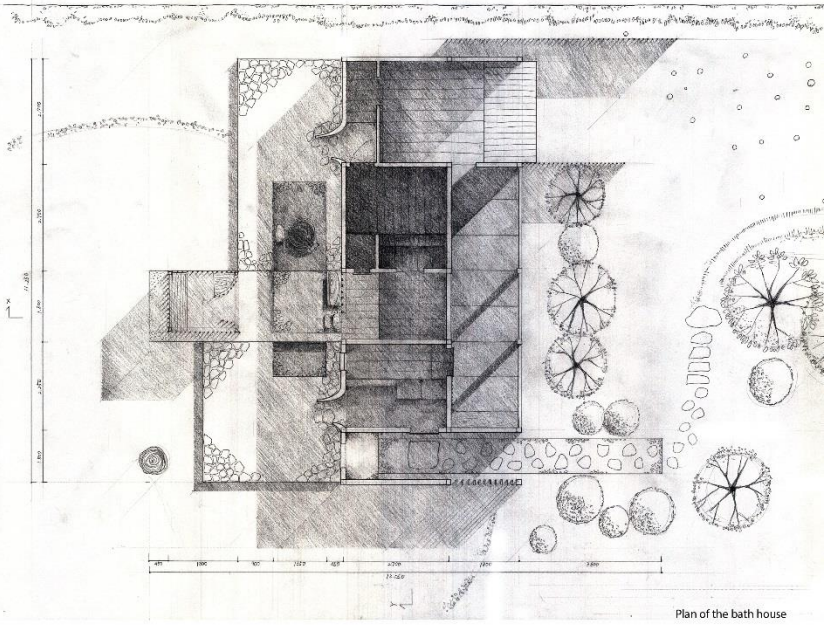
This architecture is composed of some rooms, which have each different purpose, not only a bathroom, because designing a sequence of action for bathing make such a daily routine be more spiritual ceremony.

The site is in a copse. He/she see the small and curved grass roof through a lot of plants on the approach. It's the bath house.

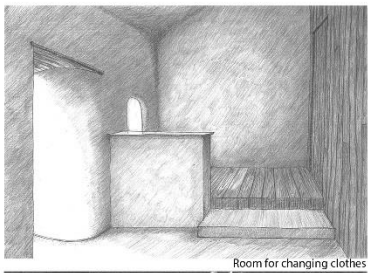
First room is for changing clothes. Soft light through a shoji [paper screen] lighten slight the interior. After changing clothes, he/she go out a yard, which have a shallow pond filled with clear water. In the yard, there is a shed, which contains tools for making a fire. People have to prepare for bathing by his/herself. He/she makes a fire, heats small rocks, scoops water from the pond and pours it over heated rocks. Then enough steam is provided for bathing. He/ she clears the tools and walks into a darker wooden room, and bend down to pass the small entrance to the bath room.

The main room is the bathroom. It is darkest space in the building. On the ceiling, there is a small sky light, and rays of the sun come down into the room through it. People enjoy steam bathing here, so the room is filled with steam and particles of it scatter rays of the sun. The sun light change the direction and the brightness all the time from the sunrise to the sunset, so the feeling of this room also changes continually. Such expression of light and shadow express the delicate sensibility for shading peculiar to Japanese architecture. He/she can meditate deeply as he/she is surrounded such spiritual shading.

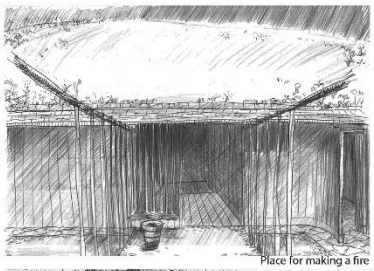
After bathing he/she goes out the yard again, and use water from the pond to cool down his/her heated body. After that, he/she enters into a room for enjoying the cool air. Bamboo grove are viewed from the room, so he/she can sense cool air not only by the touch of air but also by the sway of leaves or the sound of leaves. As he/she cool him/herself enough, he/she goes back to the first room through the tatami passage, and he/she change the clothes again. When he/she goes out from the bath house, he/she must feel the change of his/her inside. It seems to be more quiet and comfortable than before



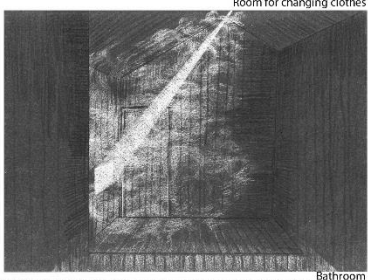
Plan of the bath house



Room for changing clothes

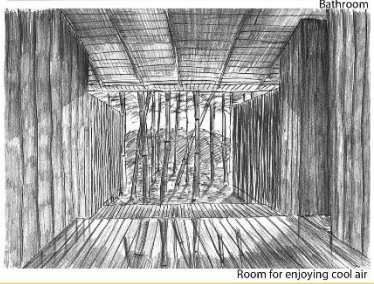


Place for making a fire

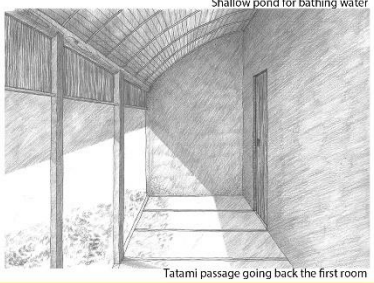


Bathroom

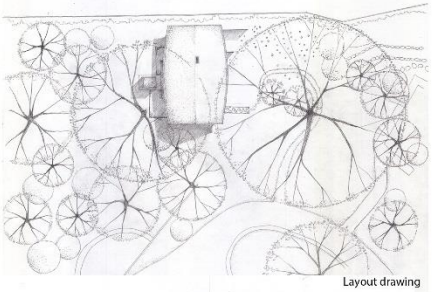
Shallow pond for bathing water



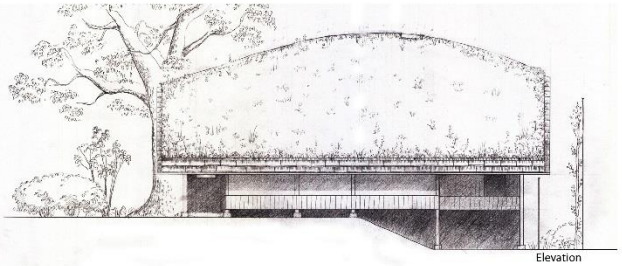
Room for enjoying cool air



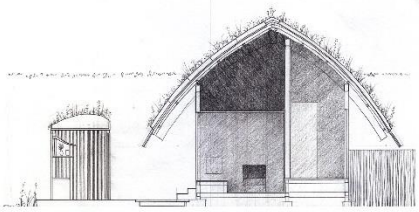
Tatami passage going back the first room



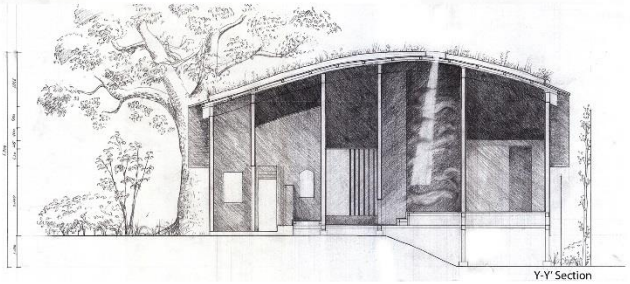
Layout drawing



Elevation



X-X' Section



Y-Y' Section

INTERNATIONAL ASSOCIATION OF SILKROAD UNIVERSITIES
POSTER SESSION

Mongolia University of Science and Technology
Conf. Hall E-604, Central Library, MUST, Ulaanbaatar / Mongolia
June 24-26, 2019

ARCHITECTURAL DESIGN OF ELDERLY AND CHILD CARE CENTER

YARMAG/2019

Khulan Baasanat
(Mongolian University of Science and Technology)

Project Team:
Supervisor: Uelun Altangerel /senior lecturer of School of Civil Engineering and Architecture/
Names of architects / designers:
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Address: UB, Bayngol District, 4th khoroo 101-197
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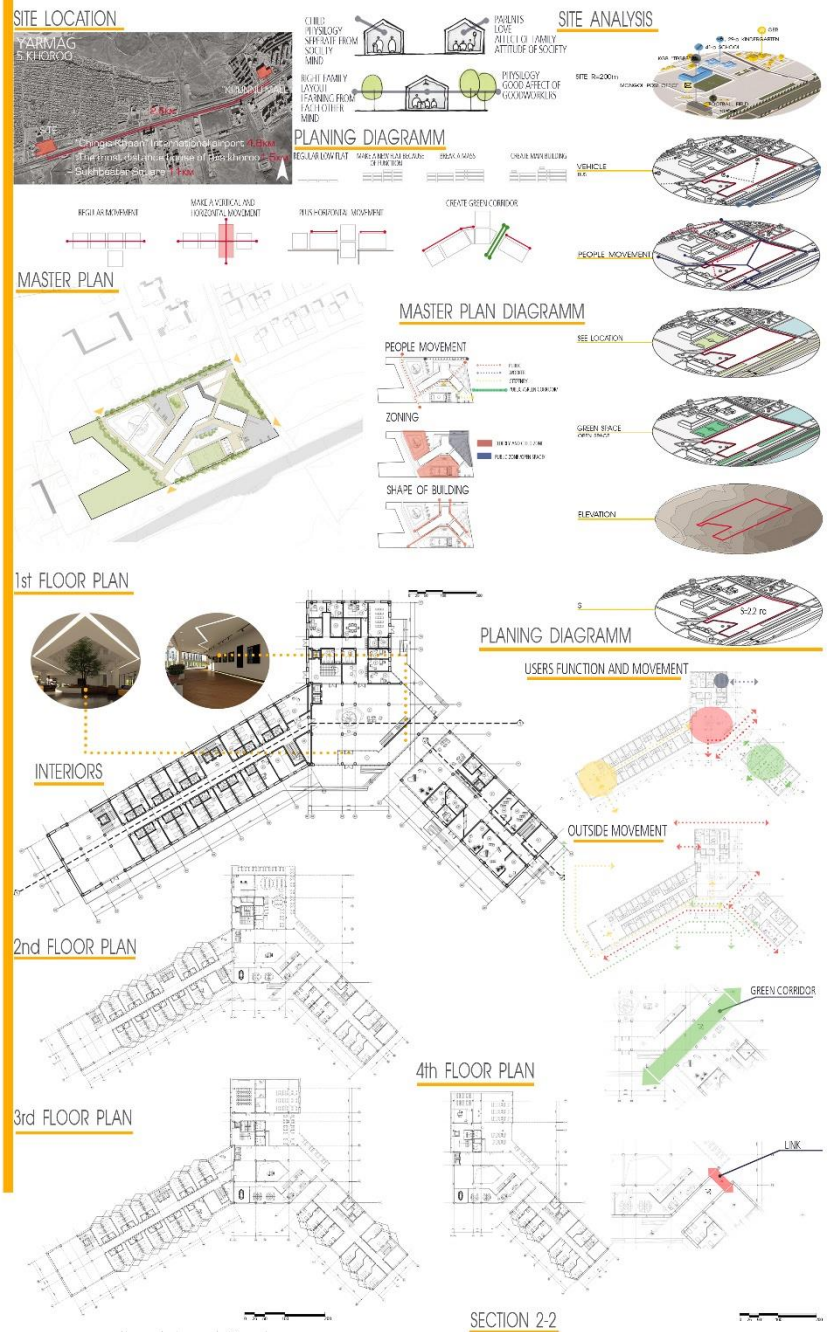
The social development of a country depends on families of the society, the growth of the families depends on the members of the families, and the members development directly depends on children. 80-90% of children's education comes from the influence of parents and families. Yet in our country /Mongolia/, orphans, children with families that couldn't afford to raise them, and children who couldn't get support from the society are being taken away to orphanages and the number of those children is increasing day by day in my country.

There are 34 orphanages currently operating in Mongolia with a total of 1140 children likewise, the elderly who contributed to the development of Mongolia has been isolated from the society living.



BAU Bahçeşehir University
MUST
武庫川女子大学 Mukogawa Women's University
Nishinomiya, Japan

INTERNATIONAL ASSOCIATION OF SILKROAD UNIVERSITIES
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Mongolia University of Science and Technology
Conf. Hall E-604, Central Library, MUST, Ulaanbaatar / Mongolia
June 24-26, 2019

INTERNATIONAL ASSOCIATION OF SILKROAD UNIVERSITIES

Tea Ceremony Room "SASARA-AN" Full Scale Structures Using Shell

MWU/ 2018.10.10-2019.1.31

Kanako Nakatani/
Mukogwa Women's Univ.

Project Team: Okada'sMortar Union
Names of architects / designers: S.Okazaki, S.Tosu, N.Sugiura, C.Okuno /K.Nakatani, M.Okada, A.Kobayashi, M.Sakamoto, A.Takato, A.Naito, Y.Nakagawa, M.Nakamura, A.Nawata, C.Noda, N.Hashimoto, T.Harasawa, Y.Fujii, S.Motooka, M.Yagi
Address: 1chome-13,Tozaki town,Nishinomiya city,Japan
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e-mail: k.nakatani.mwu@gmail.com

1.About "SASARA-AN"

We designed and constructed SASARA-AN; the tea-ceremony room. The construction consisits the tea-ceremony space; was created simply by mortar-shells with pukka and free curve and the approach space; was created light and bright by bamboo's natural curves. The result that combined with tea-ceremony room and approach is gained in beautiful point each other by different materials and between light and dark. Hight: 2.5m, Width: φ 3.6m, Total weight: 503kg and Area: 9㎡

2.Designing

Exterior space and interior space are gently connected by double structure of "mortar" and "bamboo".

2-1.Mortar-shells

A unit of mortar-shells, 1unit of 8shells, provides stability by the effect of spacer between them. From the space between them and top light, the sun shines spread on tatami mat during daytime, and the illumination lamp throw light on exterior space at night.

2-2.Bamboo-shell

Main framework consists of side members and cross members (20mm wide) , then secondary members(10mm wide) are set between side members. Split bamboo is steady on base and top-mounted wooden ring, which are made of plywood.

2-3.Doors and windows

The crawl-through doorway with bamboo blinds, you can't see interior space from outside during daytime, but the illumination lamp throw light on outside at night.

3.Construction

3-1.Mortar-shells

First, product curving moulding with tons of Styrofoam. Considering to 1.8m high, it laid down when plastering. Next, prepare plastering. On the moulding, set wraps, as preventing to bond moulding and mortar, lath sheets as a base sheet and wooden frames not to break edge contour. Finally, start plastering. When enough amount to uniformly plaster, set a lath sheet again and plaster on it. It results in retention of strength.

3-2. Bamboo-shell

First, with bamboo splitter, cut Madake bamboos (Φ70mm) into six pieces; furthermore, with a chisel and a hammer, split in half. Next, screw bamboo(as main framework) on base and also wooden ring. Finally, bind and fix split bamboos by wire.

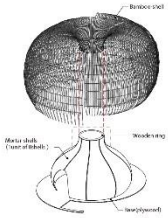
3-3Assembling

5 people brings mortar-shells (60kg/sheet) to inside bamboo-shell. Assemble mortar-shells with standing a wooden support, and joint tips of mortar shells and a wooden ring. After then take apart a wooden support. At last, set doors.

4.Conclusions

This project was mainly completed by graduate students.

<Overall structure>



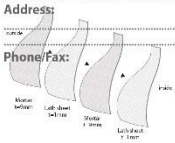
Project Team:

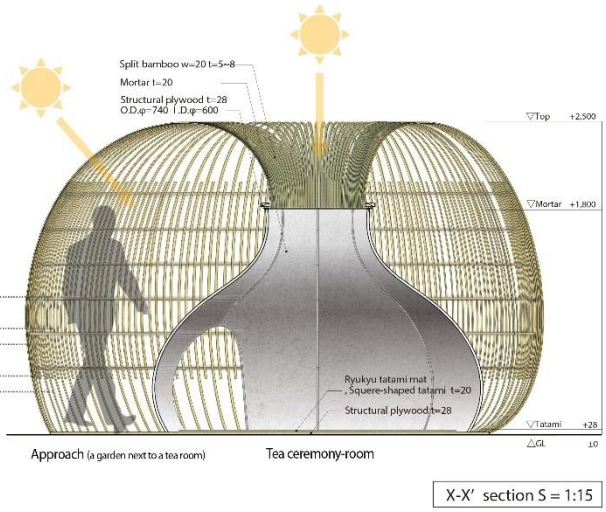
Names of architects / designers:

<Layers of mortar-shell per 1 sheet>

Address:

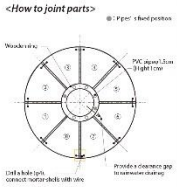
Phone/Fax:



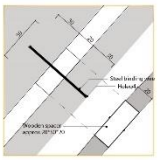


X-X' section S = 1:15

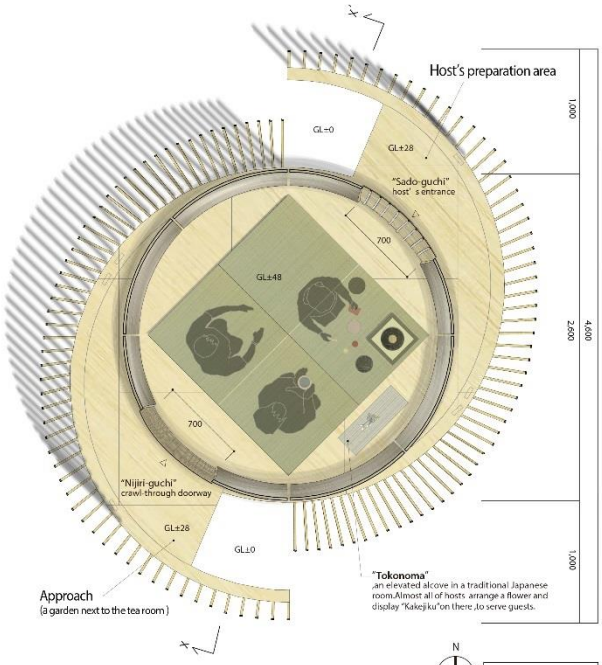
<How to joint parts>



<Spacer between mortar-shells>

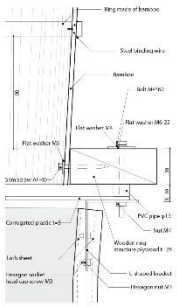


Detail drawing S=1:2



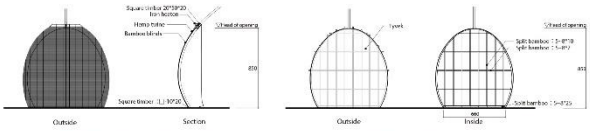
plan S = 1:15

< Joint of split bamboo >



Detail drawing S=1:1.5

<Detail of doors>



"Nijiri-guchi", crawl-through doorway

"Sado-guchi", host's entrance

<Process photos>

Moulding production

Mortar plastering work

Bamboo-shell construction

Assembling mortar-shells and the bamboo-shell

<Completion photos>

Exterior appearance

Approach

"Nijiri-guchi"

Interior space

Top light

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June 24-26, 2019

Architectural design of the Public transport terminal building which is located in Bayanzurkh district

Bayanzurkh district/ 2019

Khurtsbileg.E, Mongolian University of Science and Technology

Project Team:
Supervisor: Uelun Altangerel /senior lecturer of School of Civil Engineering and Architecture/
Names of architects / designers:
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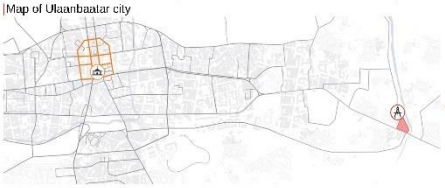
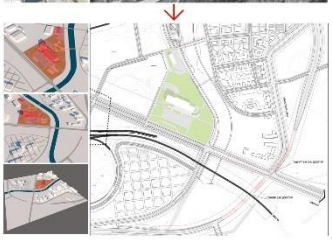
The Mongolian transportation sector includes basic types of aircraft, trains, and automobiles. The main transportation sector of a landlocked country with a land area of 1 million 566 thousand km2 which ranks 19th the world's landlocked country is an automobile. The territory of Mongolia is divided into eastern and western aimags1) and the transportation moves every day according to certain routes. There are two terminals serving eastern and western aimags and 90% of all passengers use these two. The terminal of eastern is relatively small. Compared to the western, it doesn't have a suitable location, operates a non-designed building, norms are not standardized and has poor accessibility. For this reason, we designed the Public transport terminal building which connects directly to the eastern aimag based on international standards. The purpose of this planning is to create human-centered design, to increase the traffic flow of the eastern aimag, to promote the beautiful landscapes for travelers, and to increase economic efficiency.

1)An aimag is the first-level administrative subdivision in Mongolia

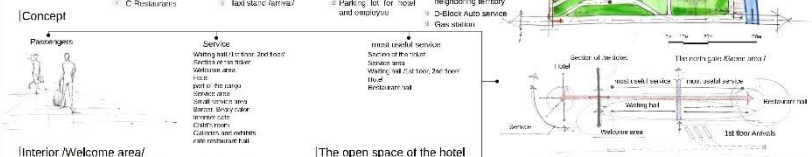
Map of Ulaanbaatar city



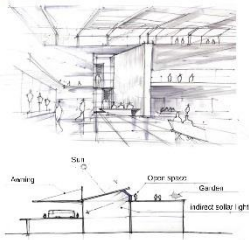
According to "Ulaanbaatar 2020 Master Plan, Development Approaches for 2030" which is the 6th master plan of Ulaanbaatar, 108.1 hectares of 18th khoroo of Bayanzurkh district manduled to develop into a mixed transportation terminal. Therefore, a survey was conducted to plan the Architectural design of the public transport terminal building.



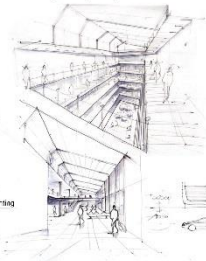
Concept

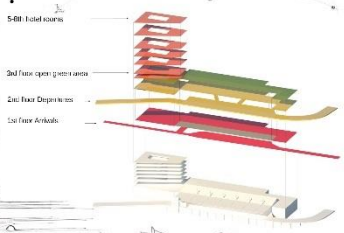


Interior /Welcome area/

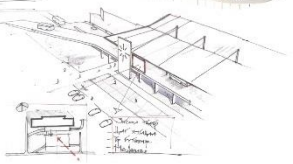


The open space of the hotel





Facade



Study maket

INTERNATIONAL ASSOCIATION OF SILKROAD UNIVERSITIES
POSTER SESSION

Mongolia University of Science and Technology
Conf. Hall E-604, Central Library, MUST, Ulaanbaatar / Mongolia
June 24-26, 2019

LA・GOON A KINDERGARTEN

Project Place/ Project Year

Natsuki Iwasa/Mukogawa Women's University

Project Team: department of architecture

Names of architects / designers:

Natsuki Iwasa

Address: 151-17-201 Kuchiri, Onoe, Kakogawa-city, Hyogo prefecture, Japan

Phone/Fax: 080-8947-7648

e-mail: natsuki729cream@gmail.com

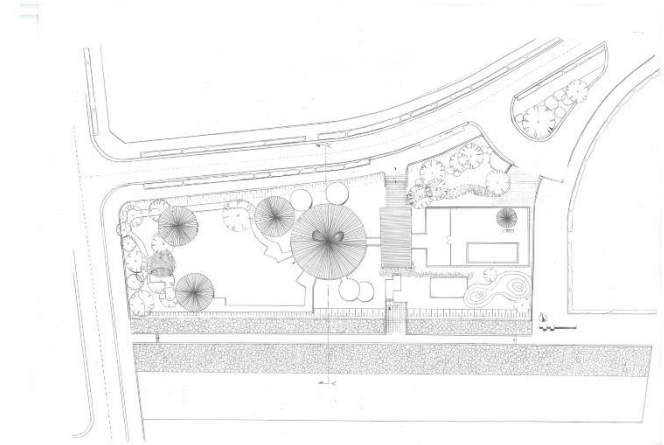
"La・goon" A Kindergarten

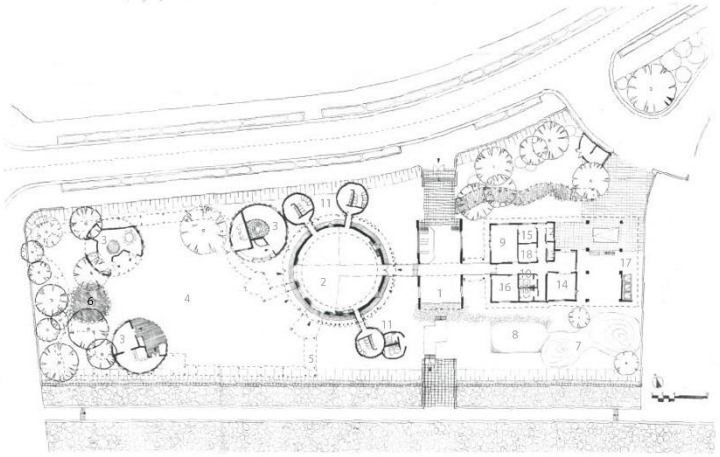
1. Background

This site is located adjacent to the calm Setouchi-Sea in a suburban area near Kobe. To the south, there is a quiet residential area across a narrow river. However, the river to the south has been slightly altered.

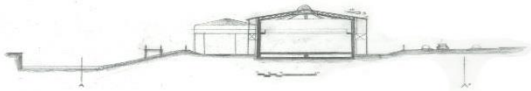
2. Concept

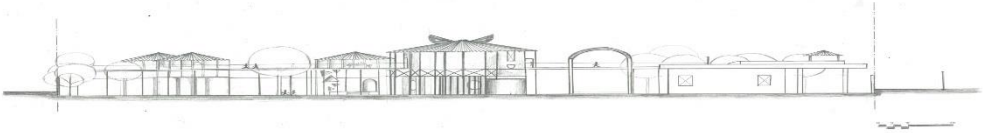
Children learn a lot of things through play. However, most Japanese Kindergartens do not have structures which promote children's spontaneous play. Therefore, I want to plan a kindergarten that solves this problem. I have designed a long footbridge which runs through the garden, a large flexible space under a large roof, and three spaces called "Work Space". In these three spaces, the children can interact with adults other than their teachers to learn things such as traditional games, small bits of knowledge, and manners. This kindergarten will have ninety 3 to 5-year-old students (16 from each year) who will be divided into 3 mixed-age groups. I chose this classification to create an enjoyable atmosphere like in the old days of Japan. In those days, children could enjoy group activities with classmates of different ages. Elder students help younger ones in this traditional system. Finally, I believe interacting with nature is essential for children. Therefore, I designed a garden with mud, clay, sand, gravel, stone, water, wood, and trees. Especially, I changed the southern irrigation channel into a shoreline made of pebbles, onto which clean water flows. In this way, I have designed the kindergarten to be rich in nature.

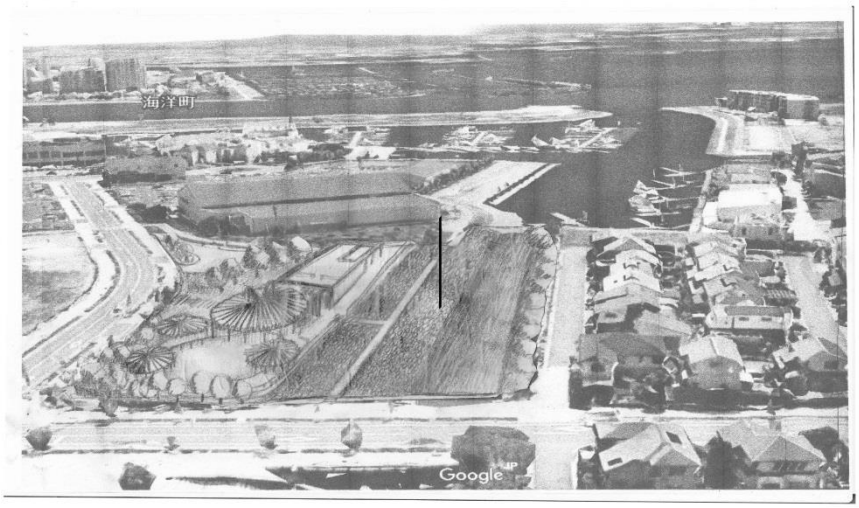




1. Entrance
2. Multipurpose Hall
3. Work Srace
4. Playground
5. Foot bridge
6. Pond
7. Hill
8. Sand
9. Teacher's Room
10. Toilet
11. Children's Toilet Room
12. Kitchenette
13. Cloak Room
14. Kitchen
15. Retireing Room
16. Conference Room
17. Dump Site
18. Warehouse







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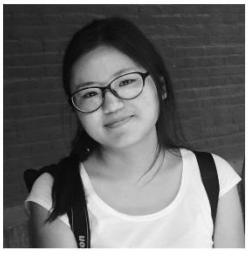
ARCHITECTURAL DESIGN OF COMMUNITY AND CIVIL ENGAGEMENT

UB/2019



Azzaya Nyamdavaa/MUST
(Mongolian University of Science and Technology)

Project Team: .
Supervisor: Bolortsetseg Enkhbaatar /Lecturer of School of Civil Engineering and Architecture of MUST/
Names of architects / designers:
Azzaya Nyamdavaa /Course 5 student/
Address: .
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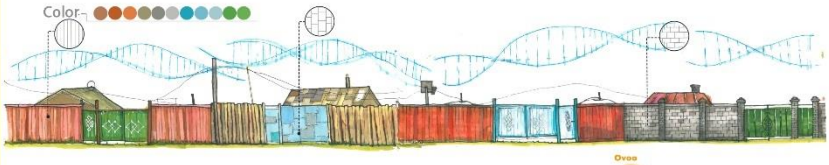
Phone/Fax:
+97699038145
e-mail: azaa_256@yahoo.com

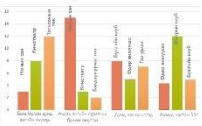
In 2018, 216.000 households live in ger khoroolol in Ulaanbaatar, Mongolia. They serve 2520 food shops, 81 wholesale centers, adn 22 markets, 2109 wells. There is no space in the ger areas of UB city for those who have free-to-use green parks, children's playgrounds. fitness centers, but not enough for the general population. The Constitution of Mongolia states that every Mongolian citizen has the right to elect, to be elected, to express his views freely, to educate and to acquire knowledge and to establishe and to regulate the law. However, citizens living in ger khoroolol of Ulaanbaatar are not able to citizens these rights because they have not properly planned the public space. The public center is the place where social groups are communicated, sharing information with others, providing advice, training and holding public meetings, finding solutions and making decisions. It can be a community center where the needs of the people in the ger area can be fully integrated.

According to the survey, classification of the citizens of the 24th khoroo of Songinokhairkhan district was divided into 4 groups and the questionnaire and observation study indicated that the space required for these citizens was determined by the community as a community center. The survey resulted in the architectural design of the community and civil engagement center, including the space for a four-year class, a cinema, a library, fitness center, a dance club, a handicraft and a chess club. Community and civil engagement center is planned to be located in the Bayankhoshuu, Baruunsalaa 24th khoroo of Songinokhairkhan district.

Street elevation



The space to which it is required must be based on a survey of citizens

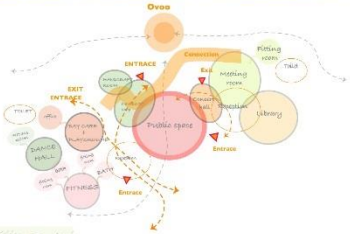


Primary and middle grades: Day care, playground, and cinema

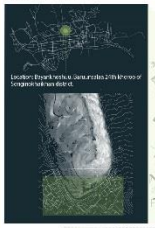
High school students and studendts: library, fitness center

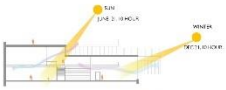
Middle-aged people: Dance clubs and handicrafts

Elderly: Chess club, handicraft

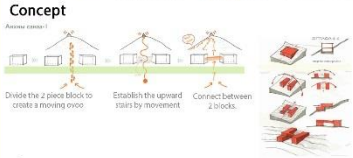


General plan

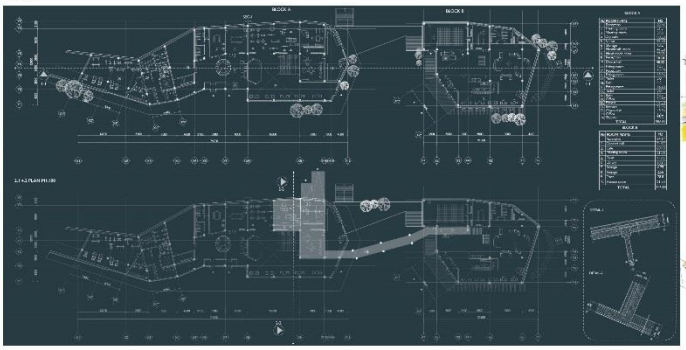




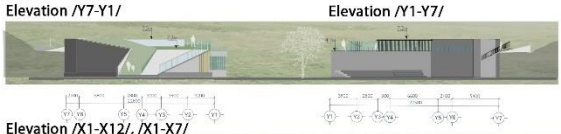
Concept



Plan



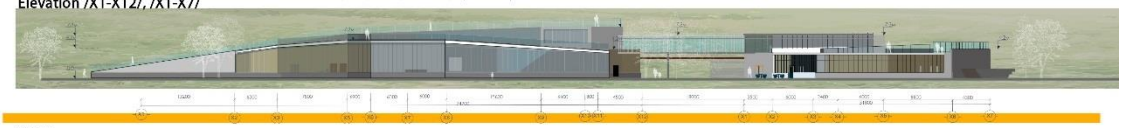
Elevation /Y7-Y1/



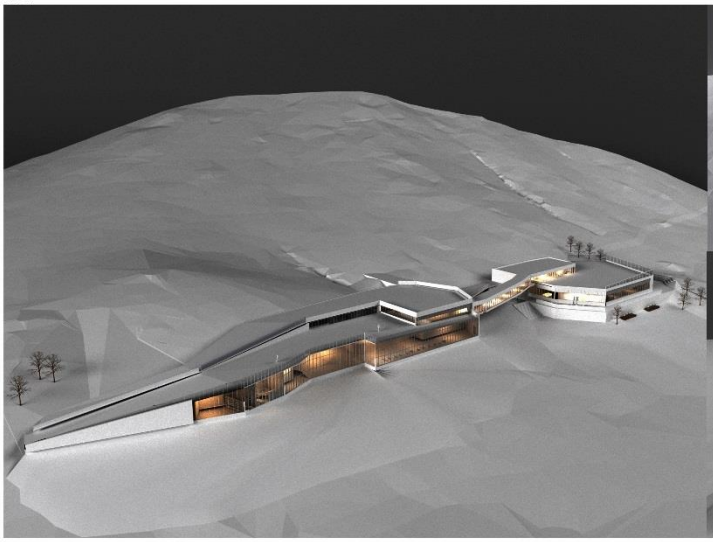
Elevation /Y1-Y7/

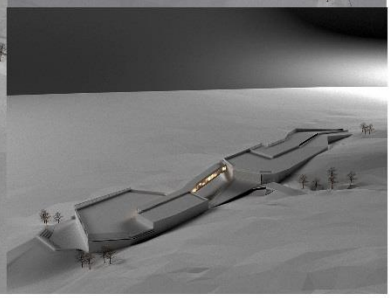
Circulation diagrams

Elevation /X1-X12/, /X1-X7/



View





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Munkhjin Enkhtaivan/
Mongolian University of Science and Technology

Names of architects / designers:
Munkhjin Enkhtaivan

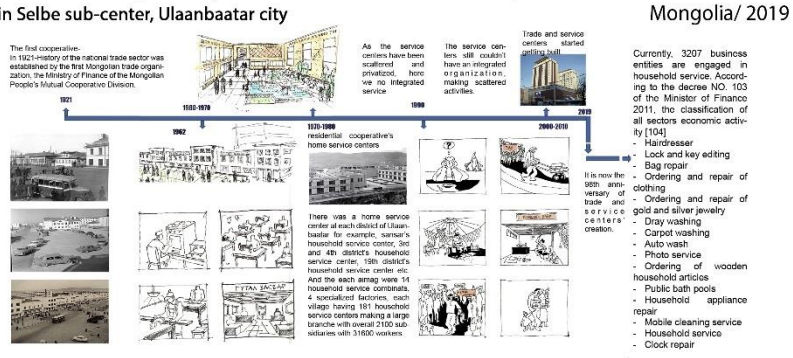
Address:
Ulaanbaatar/ Mongolia

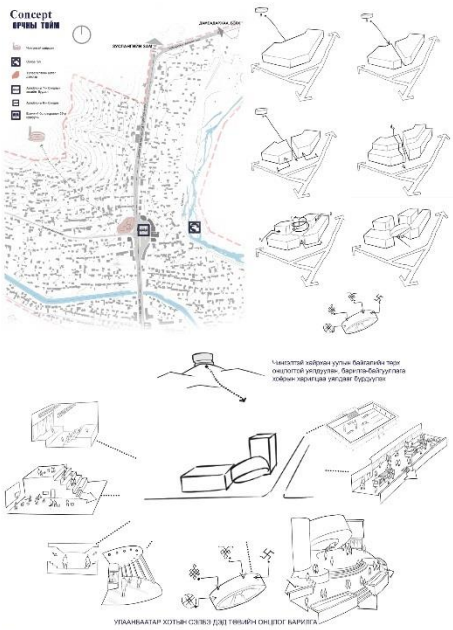
Phone/Fax:
+976 99107325

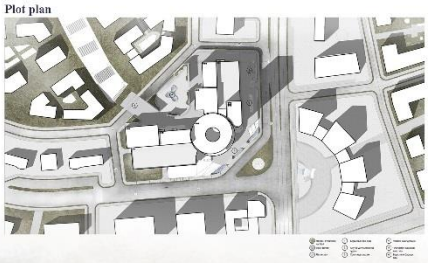
e-mail:
munkhjinet@gmail.com

Architectural design of the public and commercial center building which is located in Selbe sub-center, Ulaanbaatar city

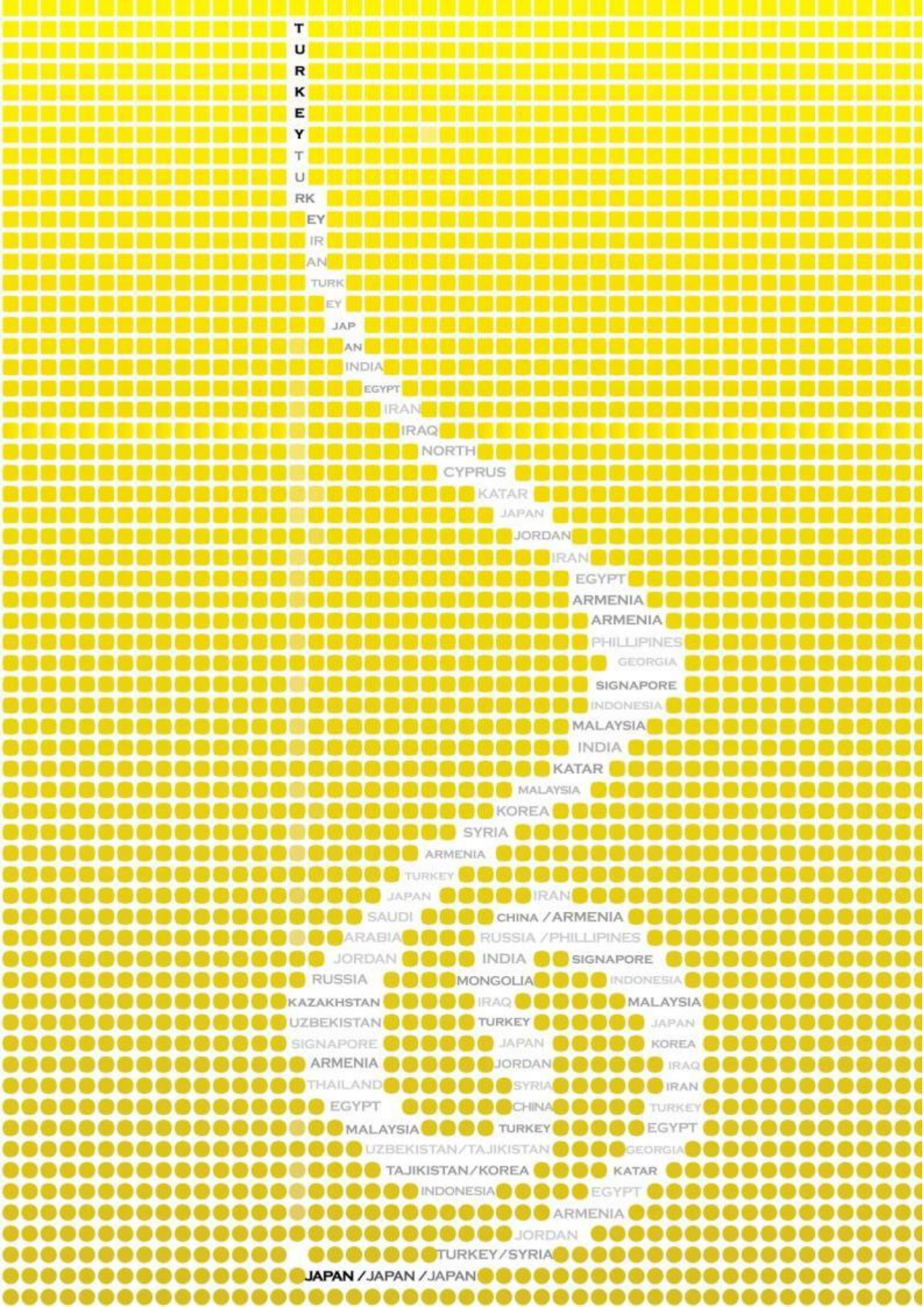
Mongolia/ 2019







It is the architect's job to design structures and spaces that blend in with and complement its natural surroundings and climate for the people of today to live, work, and relax in which fits their needs with a high degree of quality. One of the core principles an architect must follow is that their work coincides with current trends and design styles whilst remaining original and unique. Our project was planned and conceptualized with the Ulaanbaatar General City Plans in mind, taking into account the future general design path of the city. Furthermore, in undertaking this project it was necessary for us to extensively research the climate conditions, topography, population of the chosen site, in addition to its history of origin, socio-economic backgrounds, services availability, and even all the service organizations and utilities that have operated within the general level of the entire country of Mongolia, the capital city of Ulaanbaatar, and the local region.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