SHAHR-E FARANG:

AN EXPLORATION OF SPATIAL DIMENSION
OF AN IRANIAN PEEPSHOW BOX

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by

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DECLARATION

I hereby declare that this thesis is my own work and personal effort and has not been submitted anywhere for any award. Where other sources of information have been used, they have been acknowledged, as it should be.

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ABSTRACT

Shahr-e farang: An Exploration of Spatial Dimension of an Iranian Peepshow Box

Pooya Sanjari

This city is the foreign city! It is all colourful! Watch it very carefully... These are the melodic lines of a man walking with a peculiar metal box on his shoulder through Tehran alleys in the late nineteen century. The showman invites the children to come and join him on a journey to faraway lands of the unknown by gazing through the lenses of his peepshow box. This thesis investigates the spatial aspects of Shahr-e farang, a unique peepshow box in Iran during the late 19th and early 20th century, by examining how emerging technologies historically shaped our understanding of physical, mental, and social spaces through mediated representations. Shahr-e farang is situated as an Iranian peepshow box within outdoor urban entertainment devices by analysing historical global media devices, including peepshows, moving panoramas, and magic lanterns. The research utilizes primary quantitative data, such as a physical examination of the device, to explore its undocumented functions and uses secondary data to trace any related materials to the device. By incorporating data from various media devices worldwide, the study establishes a comprehensive framework despite lacking extensive academic and historical sources specific to Shahr-e farang. Drawing from primary sources and empirical analysis, the thesis presents an alternative perspective on its emergence, proposing that it was informally introduced by city vendors and showmen and evolved into a pre-cinematic entertainment device for children and adults, challenging the notions of its emergence. This research sheds light on Shahr-e farang's origin, function, and cultural significance within the global context of space, image, and entertainment media. The proposed methodological framework contributes to Iranian media archaeology and extends its relevance to urban studies, architecture, and social sciences, highlighting the impact of early image-based devices on collective spatial perception.

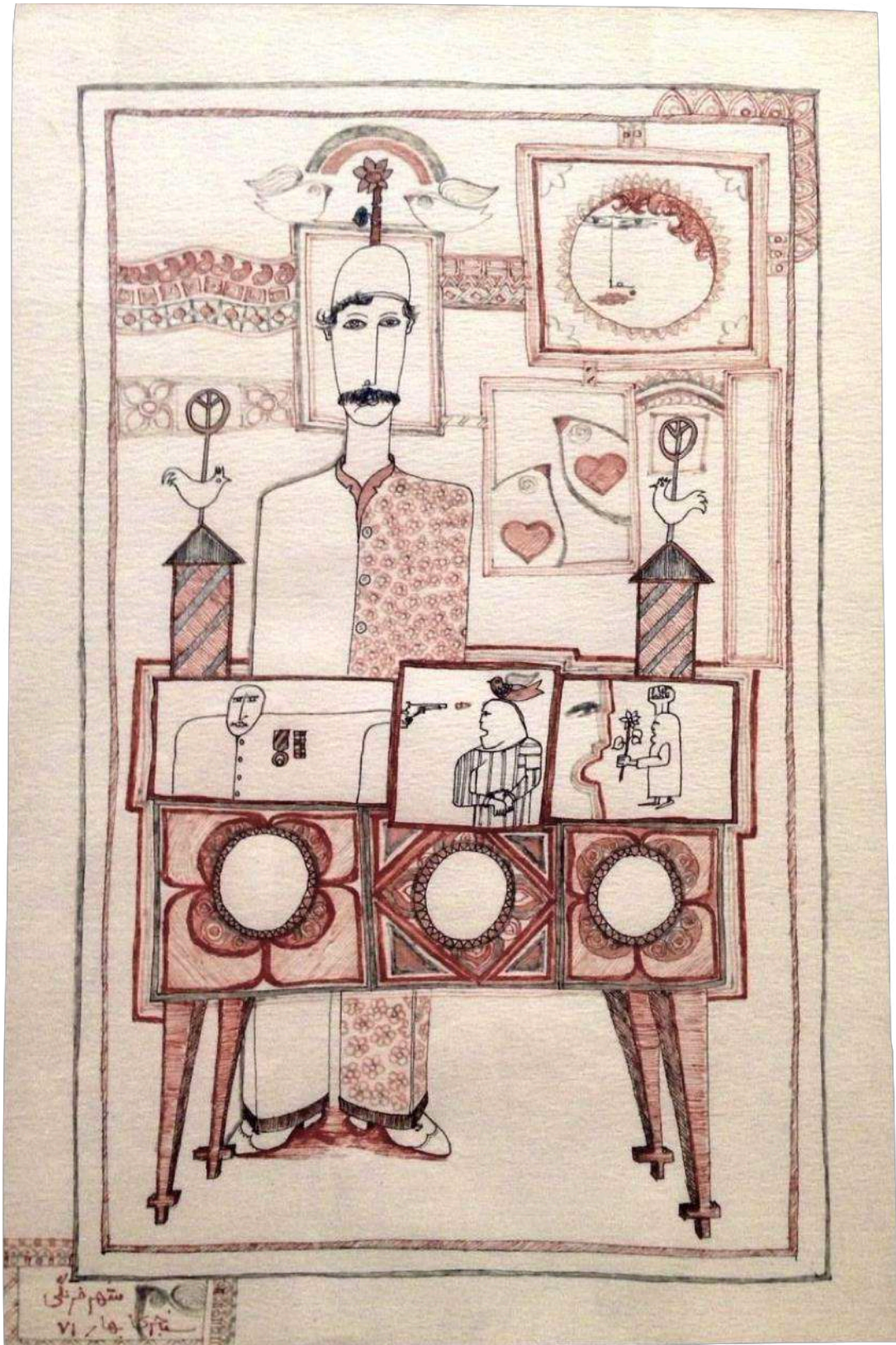Keywords: Shahr-e farang, peepshow, space, image consumption, popular entertainment

Figure 1- Shahr-e farangi, Mahmood Sanjari, 1992

TABLE OF CONTENTS

LIST OF FIGURES

INTRODUCTION

With increasing technological advancements in the field of media, particularly the production of images and consumption of images, it becomes more and more critical to study the history of this medium and how we, as city dwellers, have responded to this phenomenon over the years. In the course of history, there have been a variety of devices that have connected us with our surroundings, ourselves and our imagination, ideas and dreams, hopes, and fears through images. During this process, the images, and the devices, as the medium of interaction, carried very different agendas. They can range from political agendas to entertainment devices, affecting our physical setting visually and our mental image of these surroundings.

Images in our everyday urban life are visual manifestations of our contemporary cities and constant productions and reproductions of images in our minds. These images shape our perceptions of cities. The space of a city is not only the streets, squares, landmarks, and walls but also the mental image it has created within the social exchanges within the city. Throughout history, media devices have been the medium between city dwellers and their surroundings. They provided a space to connect the physical world to the world of imagination through images. Over the centuries, peepshows, magic lanterns, panoramas, and other image spectacles have captured the imagination and evoked a tangible sense of fear, joy, and curiosity in their viewers.

In the Iranian context, Shahr-e farang, meaning the foreign city in the contemporary Farsi language, was a peepshow box intended primarily for children's amusement in the late 19th and early 20th centuries. Throughout the Nineteenth century and onward, the word *Farangi* was used as an adjective to identify something that was not from Iran nor came from the East but was from the West. The compound noun of Shahr-e farang was used to describe a device whose origin and how it appeared in Iran are unknown.

Research Gap and Importance

Although many aspects of this device require further study, this thesis looks at Shahr-e farang as an outdoor device that was actively used as a mean for entertainment in Iran's nineteen and early twentieth centuries. Very few academic writings mention Shahr-e farang as a pre-cinematic entertainment device in the context of cinema. However, even within this small body of literature, there is very superficial and limited information about the origin, exact technical aspects, actual functions or any in-depth historical or social analysis of its relationship with the viewer. Furthermore, when this research started, there were no academic studies on the device as an individual media device in the context of urban entertainment devices in Iran.

Despite the fact that the origin of Shahr-e farang is not clear, it is apparent that the influences of prior image-based practices and devices had a significant role in its success and acceptance as a popular entertainment device. Moreover, Shahr-e farang paved the way for introducing other Western media inventions and technological advancements to Iran, such as cinema. Different means of storytelling through images enrich the media history of Iran. It has been evident in everything from the scenery and detailed explanations in the old lyrics to the drawings on the walls of the imperial cities that narrative culture is alive and well. Among the examples of such traditions are the wall paintings of the Safavid dynasty in the palaces, the street storytellers, and the Shahr-e farang as a children's entertainment device.

Numerous aspects of Shahr-e farang remain undiscovered in academia, but this thesis looks at it from an architectural and spatial point of view. The spatial aspects of Shahr-e farang that are about to be examined are divided into three different sections. Shahr-e farang's form as an object, its function as an entertainment media device and its users, most prominently children.

Research Questions

This research focuses on the critical assessment of Shahr-e farang's spatial dimensions and its role in the evolution of visual media in late nineteenth-century Tehran. The research question encompasses the exploration of Shahr-e farang's link with previous visual media, its function as an urban entertainment device, and the proposal of an alternative theory on its appearance. Therefore, the main research question is:

How do the spatial dimensions of Shahr-e farang as a pre-cinematic, urban, and mobile image-based entertainment device contribute to the evolution of visual media within the developing and fast-growing context of late nineteenth-century Tehran?"

The research question is divided into three sub-questions:

What is space in the context of media devices and mediated cities?

Which entertainment media devices would relate to Shahr-e farang, and what can be learned from these devices?

What is Shahr-e farang, and where is it situated in Iran's media history as a pre-cinematic entertainment media device?

Aims and Objectives

This study aims to critically assess the spatial dimensions of Shahr-e farang as a pre-cinematic, urban, and mobile optical entertainment device to identify elements that contribute to the evolution of visual media within the developing and fast-growing context of late nineteen century Tehran. To achieve this aim, the following objectives were derived:

1. To study Shahr-e farang as an object and explore the link between Shahr-e farang and previous visual media in Iran and other peepshow boxes worldwide.

2. To understand the function of peepshow boxes as an urban entertainment device, findings from the literature relating to pre-cinematic optical devices and contemporary visual media need to be linked.

3. To propose an alternative theory on the origins of Shahr-e farang and a comprehensive study of the device's history based on systematic research.

Hypotheses

Although part of the research that incorporates the grounded theory method is not having a hypothesis to prove, there are parts of the research that can benefit from having a hypothesis to draw a map for better approaches toward data collection and data analysis. This research will speculate that Shahr-e farang is not just another version of a magic lantern, which developed only as the result of technological advancements, financial ambitions, or the public's demand. This device is something rather different, unique, and yet familiar as the theories on media archaeology argue. As an object and its physical appearance, it reminds us of familiar architectural structures as well as new media which attempts to always introduce the new with the hint of what is already known. In terms of technical aspects, it borrows from previous apparatuses and at the same time leaps forward to the cinematograph to come. The user interface attributes of it benefit from desire in peeping taken from centuries-old studies and experiences in psychology and yet reminds us of the contemporary, private, and one-to-one means of media consumption as in mobile phones. Therefore, seeing it in the wider context of the image culture of Iran, it will become apparent that the effects of such devices on the cultural identity of the city and the spatial apprehension of the city inhabitants through the pictorial media is not developed in a linear way. It expanded as the conjure of intertwined devices, practices, and events that all need to be studied, documented, and analysed.

Methodology

The research methodology employed in this study combined grounded theory with historical analysis, drawing on a range of primary and secondary sources. 'Production of Space' by Henri Lefebvre, as well as other contemporary academic work on media, image, and the viewer, shaped the theoretical background of the thesis, contextualizing the spatial aspects of Shahr-e farang in relation to the theories of space, image and contemporary cities. To address the limited direct data available on Shahr-e farang, grounded theory was utilized to thoroughly analyze the collected data and develop a comprehensive theory regarding its origins, functions, and spatial attributes. This approach was chosen due to the scarcity of device-specific information and the need to draw insights from literature across different devices and disciplines which share the same principles as Shahr-e farang. The grounded theory framework considered the historical and geographical context of the research. Primary quantitative data played a crucial role, involving a physical investigation of the device to uncover its various functions that had not been previously documented. This primary data was then compared and cross-checked with case studies of peepshow boxes from around the world. In addition, secondary data sources were extensively analyzed to trace any material relevant to Shahr-e farang, including sources such as King's diary, national censuses, journals, newspapers, novels, photographs, films, and private collectors' collections. This comprehensive approach aimed to mitigate the gaps in academic and historical information and provide a well-rounded understanding of Shahr-e farang's origins and significance as an urban, pre-cinematic entertainment device.

Thesis Structure

Chapter one begins by examining the multifaceted interpretations of space throughout history and introduces Henri Lefebvre's theory as the most appropriate theory in relation to media and cities. This theory intertwines space's physical, mental, and social aspects,

emphasizing that space emerges from social interactions and is shaped by power dynamics and economic relations. It emphasizes the interplay between representations of space, symbolic imagery, and social behaviors. The section 'Mediated City' explores the influence and transformation of images in the urban environment and their impact on our perception of cities. The research examines media architecture, the mass production of images, and the digital revolution, which have drastically altered urban environments. It also investigates the effects of over mediation and the shifting nature of image consumption. It also briefly discusses the practice of image-based entertainment in the pre-photography era of Iran, such as Pardeh-khani, a historical form of storytelling. The last section of the first chapter introduces the concept of Shahr-e farang in Iran during the Qajar dynasty (1794-1925). It discusses the connection between Iran and the West and Iran's relationship with other countries during that period. The section highlights the influence of European innovations. The entertainment culture of the Qajar era is discussed, including the tradition of Ta'ziyeh, a form of Shi'i Islamic religious theatre that developed extensively during that time. Ta'ziyeh served as a means of expression, conveying religious, cultural, and political messages to the audience. Chapter two explores the historical evolution of entertainment devices, such as peepshow boxes and moving panoramas, as an example of very few outdoor mobile image-based entertainment media devices. It discusses how these early devices used images and storytelling practices to provide immersive experiences. The first section then traces the progression from mechanical devices to digital media, highlighting the role of photography, film, and smartphones in shaping urban spaces and transforming how we interact with our surroundings. The second section of this chapter explores the history of media devices in Iran, particularly during the 17th to 19th centuries. It discusses the parallel development of image spectacles in Europe, their influence on Iranian media history, the introduction of photography and later cinema during the Qajar era, and their profound impact on Iranian society, marking the country's engagement with modern technologies. This section emphasizes the importance of understanding the history of media devices in Iran to comprehend their cultural and societal transformations to locate Shahr-e farang as an entertainment media device during that period. Chapter three explores Shahr-e

farang, a peepshow box in Iran, by analyzing the peepshow boxes represented in Richard Balzer's book. The aim is to identify the components of Shahr-e farang and determine if the information aligns with other collected data about the device. This chapter examines and challenges theories about the origins of Shahr-e farang, including its introduction to Iran through the travels of Mozaffar ad-Din Shah. It also discusses the visual and technical characteristics of Shahr-e farang and textual descriptions. The second part of this chapter presents the findings of the field examination and analysis of one of the remainder Shahr-e farang devices visited in Tehran's cinema museum. This section describes the device's physical attributes. It highlights the materiality, construction and some of the functions and significance of its structure. It proposes that the device serves as a miniature representation of a city's gate, allowing viewers to encounter and engage with visual representations of the urban environment. The chapter concludes with a discussion and presentation of a 3D model created to study the device's design and functionality further. The overall goal is to contribute to a deeper understanding of Shahr-e farang's origins, characteristics, and significance as a peepshow box in Iran. The conclusion chapter summarizes this research study's findings on Shahr-e farang. It examines the oversaturation of visual stimuli in contemporary urban environments and its impact on city dwellers. It establishes Shahr-e farang as an Iranian version of the peepshow box and identifies its historical context as a storytelling tool. The research highlights the relationships between Shahr-e farang and other global image-based entertainment devices such as peepshows, moving panoramas, and magic lanterns. It proposes an alternative perspective on Shahr-e farang's emergence, suggesting it was an evolutionary adaptation of previous visual devices. The study contributes to the fields of media archaeology, urban studies, architecture, and social sciences by providing a comprehensive framework and filling knowledge gaps on pre-photographic and pre-cinematic media devices in Iran. The conclusion also discusses methodological considerations and research limitations and suggests future areas of exploration.

CHAPTER ONE:

CITIES AND IMAGINATION

SPACE AND CITY

Space

As a starting point in the investigation of the spatial aspect of Shahr-e farang, the Iranian version of the peepshow box, it is essential to first define the term space. The concept of space has undergone significant transformations throughout history, evolving from a static and objective framework to a dynamic and socially constructed phenomenon. Descartes laid the foundation for the modern understanding of space as an independent substance with objective existence. He focused on the mathematical aspect of space and defined it within the rigid confines of the Cartesian coordinate system. He conceived space as a homogeneous, three-dimensional extension devoid of inherent properties. Space, according to Descartes, was a container for objects, existing independently of them. His view neglected subjective aspects of space and did not explicitly distinguish it from the place. Descartes' concept of space was fundamental to the development of modern physics. While Descartes did not explicitly present a comprehensive theory of space, his ideas on the nature of matter and its extension significantly shaped subsequent philosophical and scientific discussions on space. Descartes' approach to space influenced following philosophers and scientists, including Isaac Newton. Newton's theory of absolute space posited space as a fixed and independent entity that can be seen as a development of Descartes' idea. An idea that was criticized by Newton and defined it as 'infinite and immovable space containing regulated life and movement' and perceives his law of gravity as governing the absolute space, that only becomes relative in its application (Gatti, 2013, p. 10-11). He regarded space as an absolute, fixed framework within which objects moved and interacted. Newton's understanding allowed for empty voids and emphasized objective place as the position of an object relative to this absolute space. However, his concept of space still

lacked a comprehensive subjective dimension. These notions of an infinite universe were viewed as unsettling at the time and only gradually substituted Aristotle's idea of limited cosmic space, with earth at its centre (ibid., p. 3). A century after, Kant developed his own understanding of space, considering it a form of intuition with time and space being conditions of the possibility of human experience, that 'cannot be derived from our experiences of spatial and temporal events' (Weinert, 2005, p. 586). Kant revolutionized the understanding of space by proposing that it is not an objective entity but a subjective framework for perception. Space, in Kant's view, was a necessary condition for the existence of objects but not a property of objects themselves. Kant introduced the subjective-objective dichotomy, emphasizing the subjective construction of space and the relational concept of place within that constructed framework. Often associated with general notions of Kant's philosophy, Einstein's theory on space and time negates Kant's 'denial of the objectivity of space' and considers time as relative to each observer as it depends on the perception of observers. There are numerous times and places, as many as there are references (ibid., p. 587). While both Einstein and Kant's theories of space are valuable in their respective domains of physics and philosophy, they do not explicitly consider the social, cultural, and political dimensions of space.

There is, however, another notion defining space, one that is not physical or metaphysical but also social. Established by Henri Lefebvre, this aspect of space has been utilized in social studies in recent years and is particularly relevant in this thesis, one that I will be looking at in more detail. In Lefebvre's theory, physical, mental, and social notions of space are intertwined. Space is examined through three aspects as the perceived, the conceived and the lived. Lefebvre argues that space results from social interactions and their effect are its creation. According to Lefebvre, social consequences cannot be defined using Cartesian coordinates and, in their complexity, include reciprocal or one-sided power interactions and economic relations (Javan et al., 2013).

Production of Space

The pioneering works of Henri Lefebvre on space have revitalized a wide range of disciplines, including urban theory, architecture, and cultural studies (Goonewardena et al., 2008, p. 2). In recent years, Lefebvre's works have undergone a remarkable renaissance, and the theory of the production of space is regularly cited in articles and books on the subject. This thesis's primary sources were English translations of Henri Lefebvre's *The Production of space* (1991), along with other academic works attempting to understand the relevance of Lefebvre's theories in social and urban applications and to adapt the notions of space to the conditions of the modern world.

Lefebvre identifies three moments of space production: material production, production of knowledge, and production of meaning. Space is understood as an operational process, as a network of relationships that are continuously produced and reproduced (Shojaeivand et al., 2018, p. 1), with many factors contributing to it, such as the processes of urbanization and globalization (Sabounchi et al., 1394). Lefebvre developed his theory at a time when space production was an unfamiliar concept. However, the formulation and its implications signal a paradigmatic shift in the sociological conception of time and space. His theory is based on a three-dimensional dialectical construction and a symbolic dimension oriented to Nietzsche. It seeks to encompass the entirety of social practice and not merely a partial aspect of this practice (Goonewardena et al., 2008, p. 40).

This new notion of space is essential in the context of Tehran in 1900, when the city underwent substantial modernization. Tehran was not the capital of modern-day Iran until the late 18th century. Karim Khan of the Zand dynasty was the first to establish a palace and a government building in the city at the beginning of the 18th century. However, this establishment was not permanent, and the Zand dynasty moved their government and the capital to Shiraz. In the end, it was the founder of the Qajar dynasty, King Agha Mohammad Khan,

who chose Tehran as the nation's capital in 1786. Since Isfahan and Shiraz were former capitals of the Safavid and Zand dynasties, King Agha Mohammad Khan was wary of the power of local notables in these cities. It is speculated that he perceived Tehran's lack of a significant urban structure and lack of connection to the former establishments as a blessing. This undeveloped city was a place where notables and the public were less likely to oppose his rule.

Figure 2 - Maydan-i Tupkhana (Square of Canons). Tehran 19th century

The boundary of the city was no longer defined by the old city walls and its gates, but it became the imagination of the dwellers beyond its physical borders. Space is produced and reproduced by human intentions, regardless of the unanticipated consequences that may result, even when that process is inhibited and affected by the space itself. The idea of production suggests that space itself can be considered comparable to economic goods and a product. As such, the role of space in sustaining and growing economies is crucial (Molotch, 1993, p. 888).

With the appearance of new technologies, like electricity, telegraph, photography and eventually cinema, the identity of Tehran in 1900 began to shift from its historical notions,

towards modernity. Before, it was a bazaar that played the role of not only the centre of trade, sustaining the city's economy, but also the social core of this city. It is now the moving image on the silver screen of the cinemas that shaped the identity of Tehran, as a symbol of progressing technological advancements. In 1904, the official photographer and cinematographer of the Qajar court, Mirza Ebrahim Khan Sahaf Bashi, was the first person to show the people of Tehran a collection of short films. This viewing was held in the rear room of his antique shop at first, and later, he opened the first movie theatre in the year 1905 on Cheragh Gaz Avenue. The first cinema in Cheragh Gaz Avenue becomes a physical space intertwined with the social space that it creates. Physical and social spaces are inseparable, resulting from a conflictual creation process. Lefebvre argues that 'space as a material product is a present space,' a moment embedded within a complex changing process that 'embraces a multitude of intersections.' Space representations, representational spaces, and spatial practices constitute three stages of the space-creation process (Merrifield, 2006, p. 109). These three dialectically interconnected dimensions exist in a state of uncertainty (Goonewardena et al., 2008, p. 29).

Per Lefebvre's theory of space, the urban space of Tehran can be considered a representation of space. Representations of space (conceived) describe 'conceptualized space,' the discursive construction of space by planners, engineers, developers, architects, urbanists, geographers, and other scientific fields. According to Lefebvre, since ideology and knowledge are interwoven in the practice of space, it is always an abstract and conceived space (Merrifield, 2006, p. 109). On the other hand, the lived space in Tehran is defined as the representational space. Representational space is experienced through the symbols and imagery of its inhabitants (Merrifield, 2006, p. 110). The urban fabric of the city, the tiles of the gates to the city, the minarets of the mosques, and the ceremonies within them become part of the representational space. It is the group processions and a variety of symbolic rituals during the special ceremonies, like Ashura[1] commemoration that define the lived space. As Merrifield notes,

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[1] Day of commemoration on 10th of Muharram, the first month of the Islamic calendar.

spaces of representation 'overlay physical space', utilizing its objects symbolically, and may be associated with some 'underground and clandestine sides of life' (Merrifield, 2006, p. 110). What the city dweller perceives from these two intertwined attributes of the city can relay to the spatial practices of Lefebvre's theory of space. Spatial practices (perceived) are social behaviours that conceal society's physical space. According to Lefebvre, deciphering a society's space reveals its spatial practices. As a result, spatial practices have close affinities with perceived spaces. People's perceptions shape their daily reality regarding the use of space (Merrifield, 2006, p. 110).

Lefebvre's concept of the perceived, the conceived, and the lived, which are derived from French phenomenology, particularly from *The Poetics of Space* (1957) by Gaston Bachelard and *Phenomenology of Perception* (1945) by Merleau-Ponty, refers to the self-production of space on the individual and social levels and these concepts. The three dimensions of space production are fundamentally equal and recognizable in every social process. We perceive, conceive, and live in space all at once. Each of these dimensions is not the origin, nor is it privileged. Time and space are always bound because space is continuous and constantly produced (Goonewardena et al., 2008, pp. 40, 43). This space is not only produced by the urban dweller but also produced and reproduced in the social attributes of their everyday life within the city.

Dialectics of Space

To further understand the concept of space in Lefebvre's theory, it is essential to understand the philosophy of dialectics. Dialectics is a philosophy that emphasizes process, movement, flow, relations, and contradiction. Its origins are in 'the ancient Greek classicists such as Democritus, Plato and Heraclitus, before passing mainly via Spinoza and Leibniz through to Hegel and Marx' (Merrifield, 1993, p. 517).

Dialectical thinking means recognizing contradictions and understanding them. No proposition can be true or false in dialectics, considering the content. Instead, every proposition must be transcended, and every proposition with actual content is both true and false. With Hegel, Marx, and Nietzsche as sources of critical engagement, Lefebvre developed a highly original version of dialectic. The *Production of Space (1974)* was the most important realization and application of this new concept. Lefebvre's German dialectic is a three-dimensional dialectic based on the contradiction between social thought and social action, supplemented by the third factor of the creative, poetic act (Goonewardena et al., 2008, p. 33).

At the time the first cinema opened in Tehran, it was a space that did not exist before and had never been experienced. It was the space produced through economic, cultural, technological, and political means, but its spatial attributes would be something that could not be predicted or anticipated. What the ordinary urban dweller of 1900s Tehran would mentally take from it would forever change his notion of space. According to Lefebvre, space connects the physical, the mental, and the social. At the same time, it is a physical environment that can be perceived as well as a semiotic abstraction that shapes how ordinary people deal with space. Furthermore, 'it is a medium through which the body lives out its life in interaction with other bodies' (Gottdiener, 1993, p. 131). Lefebvre expands the meaning of space by arguing that it is more than a neutral setting in which life transpires. Space is a combination of geographic form, built environment, symbolic meanings, and routines of life (Molotch, 1993, p. 888).

Space and the Body

Our mind, physical body, and perception of the world all play a role in creating space. As the first point of contact with space, space is perceived by the senses, conceived in thought, and lived. The lived experience of space cannot be exhausted through theoretical analysis. What remains is an inexpressible and unanalysable, the most valuable residue that can be expressed only through artistic means (Goonewardena et al., 2008, p. 40). Similarly, to Lefebvre, Maurice

Merleau-Ponty was interested in the spatial and temporal properties of the body and developed a sensuous phenomenology of lived experience located between mind and body or subject and object - the intersubjective space between perception and body. Merleau-Ponty's philosophy of embodiment is based on the duality of the body as perceiving-perceived, which might be related to Lefebvre's ideas of the duality of social space as it relates to the body (Merleau-Ponty, 1963, as cited Simonsen, 2005, p. 9). When applied to the production of space, the phenomenological approach leads to the conclusion that a social space includes not only a concrete materiality but a thought concept and a feeling - *an experience*. The three perceived, conceived and lived dimensions constitute a contradictory dialectical unity (Goonewardena et al., 2008, p. 41).

According to Lefebvre, space is not a space in itself, nor even the ordering of objects and artifacts in space. The concept of space is to be understood as a constantly produced and reproduced web of relationships. Therefore, the analysis focuses on the active production processes occurring over time (Goonewardena, 2008, p. 41). As a result, what constitutes space in the context of 1900s Tehran is not simply the physical space, the houses, the alleys, the bazaar, the city gates, the palaces, and the gardens. It is also how urban dwellers interpreted these places with all the ideological, cultural, and social biases they maintained on their own and within their everyday social interactions. It is the unattainable and unimaginable imagination of the ordinary who stepped for the first time in the cinema or gazed for the first time at the images of unknown places through the lens of the peepshow box.

MEDIATED CITY

Images in the City

The phenomenon of images in the urban environment has undergone significant transformations in contemporary society, shaping the way we perceive, interact with, and understand our cities. This chapter examines the multifaceted nature of images as acts of

consciousness, encompassing mental images, photographs, and expressive forms. By exploring the concept of the image of elsewhere which refers to specific categories of images encountered in urban screens, commercials, billboards, and mobile phones, the research examines the dynamic interplay between screens, subjects, and public space in the context of mobile and locative media technologies. It explores the evolving role of media architecture, the mass production of images, and the digital revolution, all of which have contributed to the radical transformation of the urban landscape. This chapter also investigates the effects of over-mediation, as a contrast to the pre-digitalized era of media which resulted in the changing spatial attributes of media consumption and the shifting nature of images. With its focus on the interplay between images, urban spaces, and human experience, it offers an insight into the complexities and implications of contemporary image culture, which is shaping our everyday lived urban settings.

This research focuses on the Sartrean phenomenology of image. Therefore, it considers the image as an act and particular form of consciousness, which includes imaginary consciousness or mental image, a photograph, and an expressive form of an image. Sartre's theory distinguishes imagination from perception in three significant respects: the phenomenon of quasi-observation, the fact that imagination posits its object as nothingness, and the spontaneity of imaging consciousness (Flynn, 1975, pp. 432-433). As images in the urban environment could be informative, propagandistic, artistic, or entertaining, there is a specific category of such images that is the main interest of this research which will be referred to as *the image of elsewhere*. Images of elsewhere can be represented on urban screens, commercials, or city billboards. They can be the images we produce and perceive on our mobile phones daily while interacting with the urban landscape. Peepshow boxes, historically, were the media platform for showing curiosity, the unfamiliar, and the elsewhere to the viewer. It can be argued that the main attraction of devices like peepshows was the contrast of being here and gazing at there, the contrast between visible and hidden, the known and unknown. The experience was

not only to see but also how to see with the act of peeping and to hear the enticing verses and magical story and the excitement of looking through a lens to see what you can see.

From vitrines, advertisements, urban billboards, and screens to mobile phones, our visionary urban surrounding is flooded with images. Taking screens in the urban environment as an example, a dynamic interplay between screen, subject, and public space is enabled by today's mobile and locative media technologies, which are intertwined with the development of modern media technology. We can think of movement and temporality in media and structures in many different forms, including 'urban screens that mount screens onto facades, video mapping projects that overlay material surfaces with playfully moving light, and fluid architectures that turn buildings into moving structures' (Verhoeff, 2016, p. 126).

This accumulation of imagery media changed the facade of our cities radically from what is described in the classical urban theories. The contemporary city we live in 'emerges through a complex process of co-constitution between architectural structures and urban territories, social practices and media feedback '(McQuire, 2008, p. vii). McQuire calls this city, *a media city*. The term media is no longer a representative platform that mirrors or alternates an existing social reality but a constant phenomenon that develops our understanding of contemporary urban spaces and creates new layouts and places of social behaviour (McQuire, 2008).

This alteration of the social reality arguably can be extended to the structure and physicality of the urban fabric. Media architecture expands the materiality of buildings in temporal and spatial terms and extends their materiality's haptic and relational qualities. This makes looking with the eyes alone impossible and entices us to actually feel the surfaces and the space itself. Projections of light and movement can de-familiarize public space and temporarily overrule the stability of architectural structures, but they need the stable structure underneath them to have this effect (Verhoeff, 2016, p. 129).

29

Mass Production of Images

Although the mediated city of today that McQuire illustrates (2008) is not entirely the outcome of technological advancements in the production of images, it can be argued that the invention of photography and the possibility of reproducing an exact replication of scenery in the mid-nineteen century mark the starting point of this transformation. Andre Bazin argues that for the first time, the only intervention between the reproduced image and the object is 'the instrumentality of a non-living agent' (Bazin, 2004, p. 13).

Before photography, art practices like etching and later offset techniques like lithography enabled artists to mass-produce artwork. The manual and time-consuming process of reproduction of images was replaced by a more efficient and accurate technic, photostat, a projection photocopier process in the early decades of the 1900s. Skipping decades of advancement in technology and science to contemporary technics, the process of image-making and image consumption fundamentally changed with the appearance of digital technology. The very first physical property of an image is transferred into an intangible and virtual bitmap. By removing the limitations of producing, storing, sharing, and representing the old physical image, the digital revolution over-saturated the urban space with pictures. Digital media, which after the invention of the internet were hailed as a means of democratic freedom and empowerment, for some are considered the opposite, an adversary. It has been accused of generating false information, causing anger, and being misused with a political agenda (Sacasas, 2020, p. 3). This, in turn, raises the critical question of how we have access to such images in urban spaces and in what ways we, as the citizens of contemporary cities, consume them.

Images are ever-present, we are looking at them on our mobile devices' screens, accessible from anywhere, on the walls of our cities in the form of projections or installations and on every corner of the street as advertisements. This accumulation of images and

accessibility transforms how we consume images in our urban environment since this stream of urban commercial-mediated products is no more visible to us, and they are changing in form and merging with their urban surroundings (De Certeau, 1984). From the perspective of the city's inhabitants, this will result in a lack of control over the content and the amount of information transferred via media and make the consumer of images a *pure receiver*. However, one can argue that this is the fundamental quality of nowadays cities. With advances in technology, commercial motives and the very nature of metropolitan environments, the accumulation of the stimulus is an inevitable cause as Steve Pile considers this concentration of 'many activities, people, and things' as the essence of the modern city that can result in our emotional extraction from the city life (Pile, 2005, p. 17). Myria Georgiou believes that this 'intense mediation' and 'intense human mobility' cannot be separated from today's city and eventually create the city's cultural identity (Georgiou, 2013, p. 10).

With the everyday advancements in media technology, wearable devices, the flow of advertisements and the availability of images as a commodity, it becomes vital to have a better understanding of the effects of being over-mediated, as Richard Koeck notes in *Cine-scapes* (2013), we encounter the phenomenon of being oversaturated by media 'with a frequency and intimacy that is unprecedented in human history' (Koeck, 2013, p. 3). Besides the changes in the essence, volume and pace of media consumption that changed the contemporary city, the spatial attributes of the media have also changed. With the advent of cinema, capturing moving images and displaying them on screens in the early twenty century provided a communal and space-specific act. This collective activity turned into a private and space-independent way of consumption with the appearance of TV. Moreover, the arrival of digital technology, not only increased the number of images but also facilitated more effortless alteration process to the images themselves, essentially altering our perception of our surroundings. In contemporary society, the nature and impact of images have undergone significant changes. Instead of representing or reflecting reality, they have acquired a new quality where they construct their own reality. This transformation can have significant implications for our understanding of

reality, perception, and the influence of visual culture. This adaptation of images requires reflection on the changing nature of the imagery in contemporary society and the ways in which it impacts our understanding of reality and our lived experiences. It highlights the power of images to create alternative realities that can sometimes overshadow the physical and human spaces we inhabit. 'At the same time that images have multiplied in number, they have changed in character. Instead of being a representation of a reality, today's forceful imagery creates its own reality that is often more 'real' than the existing physical and human worlds '(Pallasmaa, 2011, p. 16).

This changing reality of our urban surrounding and our perception of it is not just limited to the city we live in. Georgiou extends this understanding to what we know about any city. Most of what we know about the city, the one we live in and consume, one we desire to visit, migrate to, or even avoid, is mediated. The media plays a significant role in shaping our perceptions and understanding of urban cultures. Whether through the movies, TV shows, or even lyrics to the music we are listening to, the media provides a lens through which we view and interpret the city. On the other hand, it is more than traditional, consumption-based forms of media that affect our understanding of the city. Social and personal media also play a crucial role. Social media platforms on mobile and personal devices like Instagram and Twitter allow individuals to create content, sharing their experiences and perspectives of the city. These individual perspectives come together to structure the overall narrative of the city. Media devices shape how we understand and experience urban cultures, both through how it depicts cities and through the ways it allows us to communicate within them. These representations and communication practices help to define the way we perceive and, as a result, respond to the challenges urban living presents. Media and media devices are not just a mirror of reality; they also shape and construct our reality (Georgiou, 2013, p. 1).

With regards to the culture of image consumption, modern Iran cities are no different from the western world. Oversaturation of content and increased consumption of images can

be universally described taking into consideration countries with access to the latest technologies. In today's cityscape of Tehran, images play a crucial political role, they can be a tool of oppression, propaganda and at the same time a tool of opposition, a means of expression.

Pre-Photography Images in Iranian Cities

There is a significant contrast between the spatial means of image consumption of the early nineteenth century and today. Iran, like many other ancient cultures around the world, has a rich history of image-based entertainment that predates the invention of photography and cinema. Throughout the centuries, visual storytelling has provided a powerful platform for the Iranian people to express themselves and pass on knowledge from one generation to the next. These forms of entertainment were used for various purposes, including religious and secular celebrations, storytelling, and political propaganda. While many of these practices include a visual element, one practice is very similar to the moving panorama. Pardeh-khani, one of the most prominent forms of image-based entertainment in pre-photography Iran, shares many aspects with the European show. Painting a scene on a single large canvas. The storyteller in

Figure 3 - Pardeh-khani screen

some shows was incorporating a roll of painting, revealing more of the painting as the story moved forward (Beyzai, 1344).

Pardeh-khani is a traditional Iranian storytelling form that mainly involves the use of a large painted curtain, called a pardeh (curtain), to illustrate the story being told. The practice typically involves a storyteller, known as a pardeh-dar, who stands before the curtain and uses a stick to point at different scenes or parts of the illustration as the story progresses. The stories themselves are typically inspired by historical and religious events. They represent the epic spirit and resistance in Iranian culture. There are also themes from Persian literature and folklore, such as the epic poem Shahnameh, and can include elements of history, mythology, and morality. Pardeh-khani was a popular form of entertainment in Iran during the Safavid, Qajar and the early Pahlavi era. It was performed in private homes, coffeehouses, and public squares and was enjoyed by people of all social classes. The rise of cinema and television in the 20th century led to a decline in popularity. However, it is still practised by some communities in Iran and other parts of the Persian-speaking world.

THE OTHER PLACE

Long before the invention of photography, moving images and cinema, our understanding of other remote places was conceived in the form of paintings, descriptions, and oral stories. In many aspects, perhaps a less accurate representation of reality but a rich amalgam of imaginative realizations and a personal sense of discovery. In Iran this sense of exploration was available through Shahr-e farang, literally translating to *Western City, Foreign City or European City*. This peepshow device, even in its name captures the notion of increased curiosity about the other place, which manifested itself profoundly in times of the Qajar rule from 1794 to 1925 (refer to Appendix A for the timeline of Persian dynasties and Qajar kings). This thesis finds importance in examining the connection between Iran and the West and Iran's relationship with other countries during the Qajar rule. As well as outlining the background of

Iran's entertainment culture in the nineteenth century. Considering all as essential pieces of the puzzle to understand the origins of Shahr-e farang and how it emerged in Iran.

Eastern City, Western Place

A significant level of cultural, political, and economic exchange and influence marked Iran's relationship with Europe during the Qajar period. Politically, the Qajar dynasty was heavily influenced by Western technological developments during the late 18th and early 19th centuries. Like many other Middle Eastern societies at the time, the Qajar court struggled to maintain their autonomy and independence in the face of growing European imperialism. The West, particularly Britain and Russia, sought to exert control over the region through various means, including economic manipulation and military intervention (Kashani-Sabet, 1997).

The economy of Iran during the early Qajar period was primarily agrarian and defined by the traditional production of crafted goods. At the end of the eighteenth century, Iran's commercial and manufacturing activities followed a traditional pattern. However, there were already clear indications of changing trade patterns arising from contacts with Russia and the East India Company's territories. In the eighteenth century, only a small proportion of the total population lived in cities, and this population remained closely linked to the countryside. In this period, all cities except Tehran, and the ports in the North by the Caspian Sea and in the South by the Persian Gulf, had ancient foundations, which were highly significant regarding the country's commerce and manufacturing traditions. Contrary to these ancient cities, Tehran became the new capital of Agha Mohammad Khan of the Qajar dynasty, with the population fluctuating between 10,000 to 60,000 people in summer and winter, respectively. Many northern cities were used to facilitate maritime trade with Russia, and large Armenian communities traded with Astrakhan, a Russian port that was dominant in the Caspian trade. In addition, Bandar Abas served as the southern port for maritime trade with India and the Persian Gulf region (Hambly, 1964, pp. 72, 74). The outlook of Iran's economy in this era is available

mainly in the accounts of foreign travellers and writers, and no local records are available. Most of these travellers were diplomats, soldiers, or traders of the East India Company, trying to provide information to their employers about a country that was statistically relatively unknown to Europeans (ibid., p. 69). Hambly uses the reports and personal impressions of some of the English travellers during the late 18th century, from when the last king of the Zand dynasty died to the coronation of the first Qajar king, Aqa Muhammad Khan. The letters of J. Malcolm to H. Dundas (1929, 1930), J. Malcolm's book, *History of Persia* (1815) and Harford Jones Brydges, *An Account of the Transactions of His Majesty's Mission to the Court of Persia in the years 1807-11* (1834) are some of these sources.

Figure 4 - Street scape. Tehran 19th century

Politically, Iran was in flux, with the Qajar dynasty struggling to maintain control over the country in the face of various internal and external pressures. Europe, particularly Russia and Britain, played a significant role in inducing this chaos as they sought to exert influence over Iran for their own strategic and economic gain. Western European countries have gone through many transformative upheavals across the centuries. The French revolution, which

arguably marked the start of liberal democracy and the creation of the new constitution, was followed by a century-long evolution in the social, economic and scientific fields. Observing this transformation, the Iranian intellectuals in Qajar Iran viewed the current political culture and the role of the king concerning law, religion, science and society as an obstacle to reform and believed institutional change was required to create a modern state. In contrast to Western society, these changes did not follow a gradual process of progress but had the opportunity to benefit from the advancements of Western countries, as they were a tested model and a revolutionary path that could facilitate the change process in Iran (Bayat, 2020).

Regarding technological advancements, Iran was influenced by European innovations during the Qajar period. For example, the introduction of telegraph technology in Qajar time and the first successful telegraph in March of 1858 (Mahboubi-Ardakani, 1357, p. 194) marked a significant turning point in the country's communications infrastructure. Photography and later cinematography technologies are other significant inventions which will be discussed in detail later. Similarly, European-style factories and industrial techniques were introduced. As depicted by European travellers, Iran's economic state at the turn of the nineteenth century gives the appearance of a traditional economy deteriorating under the stress of political chaos and the demise of transcontinental trade routes. However, there was still a history and foundation of fine craftsmanship and manufacturing processes that were respected by Iran's trade counterparts (Hambly, 1964, p. 81). Namely was, the well-established tradition of carpet weaving in high demand in the West at the time. This demand led to the establishment of manufacturing plants by British-Swiss and Dutch companies to modernize and organize the process of production, dye, and storage to export (Floor, 1991, pp. 324, 325).

Mirza Taqi Khan Farahani, known as Amir Kabir (1807 - 1852), was among the first in the court of the Qajar's to take meaningful steps to modernize Iran. The chief minister (1848 - 1851) to Naser al-din Shah Qajar made successful reforms to the army and contributed to the development of Iran's infrastructure, education, and foreign policies. By establishing the first

Western-style educational institution in Tehran, Dar al-Fonun, originally intended to train officers, started an instrumental movement in the modernization of Iran's education (Amanat, 2017, pp. 248-259). Even though printing technology had already been developed in Iran and firmly established in Tabriz first by Abas Mirza (1789-1833), another prominent figure in modernization in the Qajar dynasty, it was Amir Kabir who started to report on Western technological and scientific advances in the Vaqaye-e Ettefaqiyeh newspaper in 1851 (ibid.).

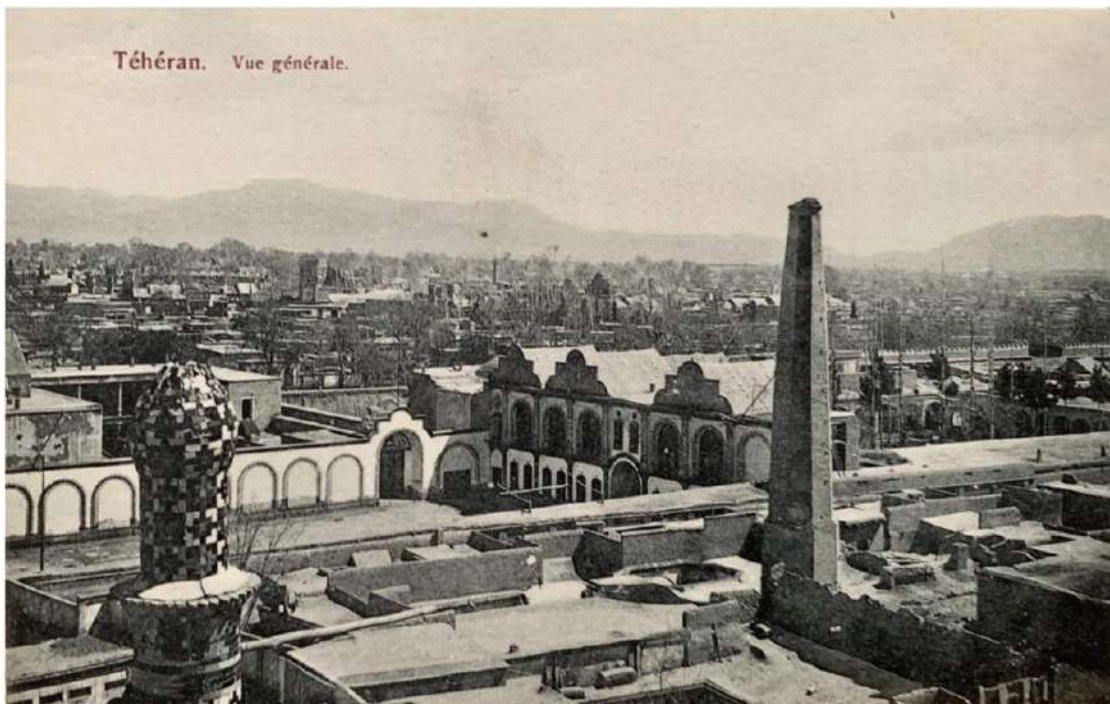*Figure 5 - Dar al-funun from the top of the Maydan-i Tupkhana, 19th century*

Iran's relationship with Europe was complex and multifaceted during the Qajar period. Apart from the political influences and interests of the Western countries, which led to multiple upheavals, revolutions, coups and significant political and social changes, several economic associations and technological imports changed Qajar's social scene in Iran.

Entertainment culture of Iran in the Qajar Era

European travellers and writers often portray the state of entertainment in the Qajar Era as bleak and non-existent. Although this view might not be too far from the reality of European visitors, the extent of it might be overstated as the true state of entertainment might not be exposed to these viewers. Also, the idea of entertainment in the social and economic period of Qajar might be completely different from the one that is expected by a Western citizen. During the Qajar era, Iran was a highly traditional society. Some of the entertainment might have been only available to the higher class of society, the court, and the king and not available to the public. Celebrations, religious observances, enjoying nature, poetry, and other social gatherings are also obviously excluded from this view (Khosrovani, 2007).

In the early Qajar era, perhaps, a decline in population that resulted in the desolation of suburban areas of major cities in Iran was contributing to this state. The desolation was the result of over half a century of invasions, civil wars, political upheavals, and endemic lawlessness that began with the invasion of Afghans between 1720 and 1730 and continued for over half a century. Despite a lack of statistics, all the writers on Iran were certain that the population of Iran declined from the Afghan invasions to the beginning of the Qajar dynasty. This was with the exception of Fars province, with its capital Shiraz, during the reign of Karim Khan of the Zand dynasty between 1751 and 1779 (Hambly, 1964, p. 71). The relative stability experienced by the Iranians from the reign of Fath-Ali Shah of the Qajar dynasty through the whole Qajar era, along with increased trade with Russia and India which brought about economic improvements, contributed to certain changes in Iranian society as well as entertainment. One of the prominent forms of these urban entertainments was the Iranian form of passion-play, called Ta'ziyeh.

Figure 6 - Ta'ziyeh in late Qajar era

Ta'ziyeh is a form of Shi'i Islam religious theatre that started in Iran in the seventeenth century. It remains an important part of Iranian culture and tradition to this day. Although not exactly in their current form, the roots of these dramatic acts can be traced back to the pre-Islamic era. These plays, at their core, share parallels and resemblances to the Middle Persian epic of Memorial of Zarer or Sug-e Siavash, which depicts the life and death of beloved Siavash, a legendary hero in Ferdowsi's *Shahnameh* (Dabashi, 2005, p. 91; Yarshater, 2001). The word Ta'ziyeh means comfort and condolence, coming from the root of the Arabic word Aza, which means mourning. This form of passion play is performed in memoriam and portrays the martyrdom of the Prophet Muhammad's grandson, Imam Hussain, and his followers in the Battle of Karbala in 680 AD. During the Qajar era, Ta'ziyeh developed extensively and became an important form of expression for the people of Iran. The plays were performed in public spaces, such as streets, alleys and market squares or specific spaces designed for these performances called Tekyeh and were attended by people of all social classes. The story was based on the same event, repeated every year, and often accompanied by music and poetic recitations. These were used to convey religious and cultural messages to the audience. During

the month of Muharram (AH Islamic calendar), Ta'ziyeh plays were usually performed in temporary spaces. Perhaps the first significant contribution of the Qajars to the urban entertainment scene of Tehran was the construction and expansion of Tekyehs and, most magnificent and prominent of all, the royal Tekyeh Dowlat. An arena-like theatre that was built by order of Naser al-din Shah in 1868 to accommodate a permanent space for Ta'ziyeh performances that could accommodate nearly 20,000 spectators (Barjesteh, 2007, p. 448). Located across from the Grand Bazaar and adjacent to the Golestan Palace complex, the Tekyeh Dowlat was a central landmark of Tehran at the time. The structure included three stories and a tent-cloth roof supported by eight half circles of solid oak, which were later replaced with iron supporters. It had circular stone benches at the first level with separate entrances for men, women, Shah, and his entourage. (ibid.). S. G. W. Benjamin, the first American diplomatic envoy to Tehran, describes the building in detail in his book *Persia and the Persians* (1886).
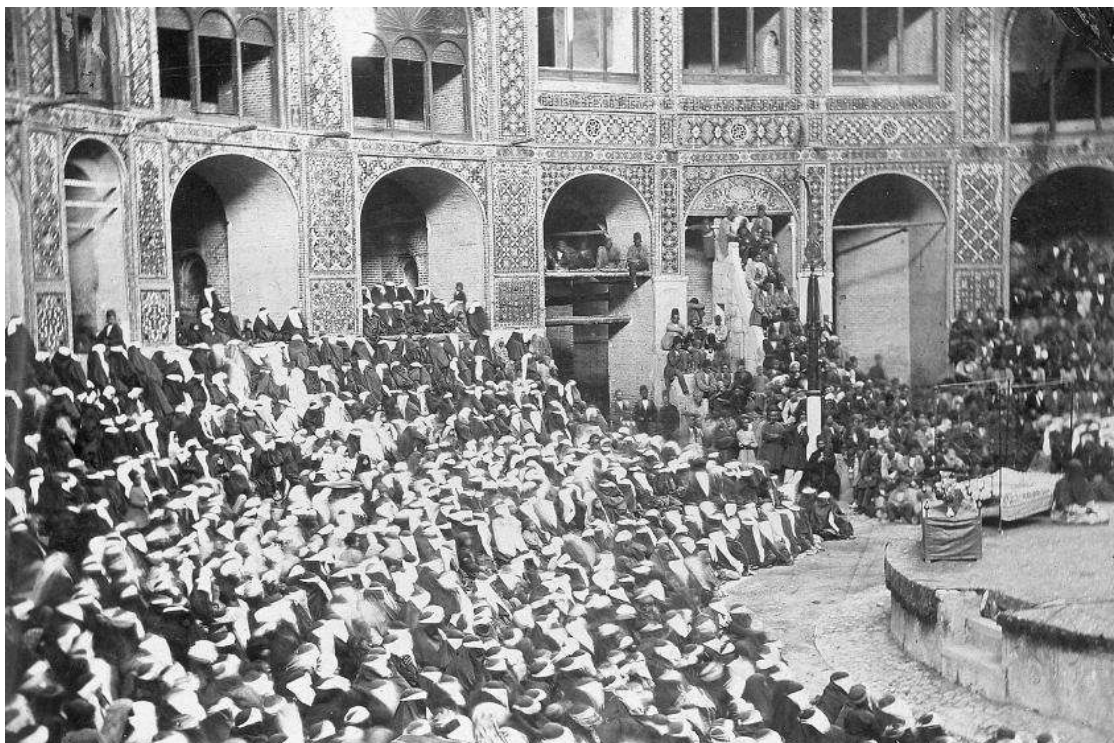
Figure 7 - Female spectators at Tekyeh Dowlat in Tehran, late 19th century

Ta'ziyeh, through elaborate performance, storytelling, and staging, depicts the other place and transports the audience back to the desert of Karbala. The spectacle immerses the

viewers into a place and time from another era. Ta'ziyeh was not only a form of religious ritual or entertainment but also served as a means of political expression. The plays often depicted the struggles of the oppressed against their oppressors and were used to critique the actions of figures in power. As a result, Ta'ziyeh became a tool for social and political resistance (Dabashi, 2005). Despite this, Ta'ziyeh continues to be an integral part of Iranian performance culture and is still practiced in Iran.

CHAPTER TWO:

MEDIA DEVICES AND URBAN SITUATIONS

In chapter one, this thesis examined the role of the media in shaping perceptions of urban spaces. It was established how various forms of media, such as images, signs, text, or sound, convey a message, tell a story, or even promote a particular agenda. Moreover, it considered how these mediums could also shape viewers' imaginations and perceptions of a known or unknown place, regardless of the intended purpose of the media. Whereas this chapter will focus on the actual physical devices used to deliver image media in urban spaces and provide a brief list of some of these media devices in chronological order and a description of their function and use and how they were an inspiration and predecessor or evolved and became the successor to the previous devices. These media apparatuses take many forms and go as far back as the first peepshow boxes, the magic lanterns, and panoramas, to contemporary mobile phones. These tangible objects become a physical and mental bridge between the media, as discussed in the first chapter and the viewer. The devices' function, mobility, and use in either private or public settings will be examined in this chapter. Furthermore, the existence of these devices is studied in the historical context of Iran. The history of media devices in Iran has been divided into three parts, placing the emergence of photography at its centre. This thesis argues that the appearance of photography in Iran was a pivotal moment in the history of image-based media in Qajar times.

This thesis focuses on the image-based media devices used to conceive and perceive images in the context of urban space. Particular attention was placed on the entertainment devices since they are directly related to the Shahr-e farang. Since this thesis argues that the appearance of Shahr-e farang in Iran was an organic evolution, a combination of interpretation and amalgamation of some of the devices mentioned in this chapter, other essential inventions that significantly contributed to the invention of modern media, and entertainment devices, might

have been excluded. *The Timeline of Media Devices* shown below represents media devices across centuries and divides the inventions considering the context of their operation, whether it is intended to be used in the urban space or indoors.
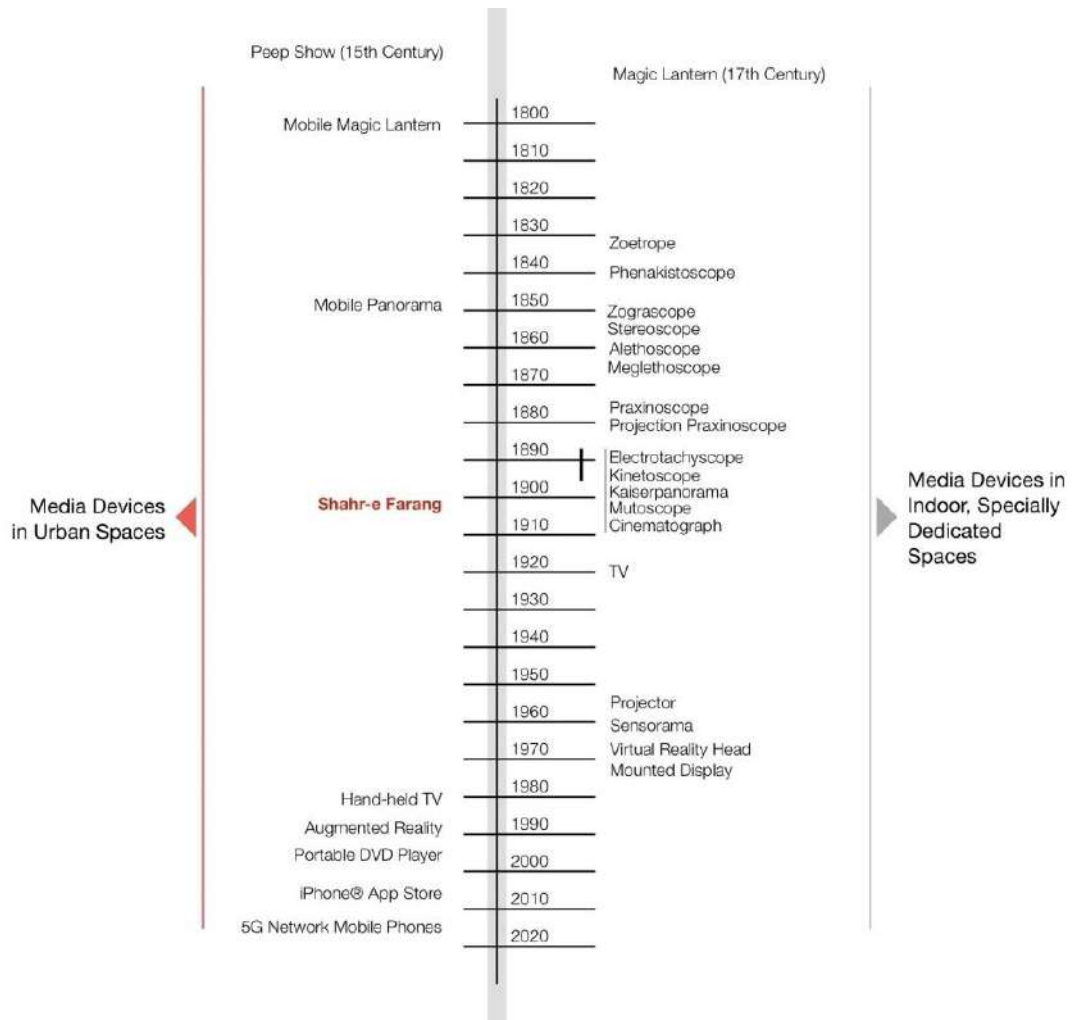

Figure 8 - Timeline of Media Devices

FROM PEEPSHOW BOXES TO XR

Media devices and the city

Images have been the medium of imagination and representation throughout history. In the contemporary urban context, media, and in particular images, are beyond being just a communication tool or a means of expression. This effect evolved even further throughout history since the devices functioning as mediums have changed, but the complexity and the fabric of urban space were also transformed. From images on prehistoric artifacts and cave paintings to the invention of the camera and, more currently, the digital era introduced a variety of visual media technics and devices, helping us to not only communicate our beliefs, values and ideas but also shaping our senses, imagination and understanding of our cities.

The history of image-based media devices within the realm of entertainment encompasses a diverse array of technologies. Devices evolved either independently of each other or as an evolution of one's invention. Some of the apparatuses were stationary, bounded to a single location or, through technological advancements was or became mobile, allowing the device to be used in various locations and expand its use and purpose. Certain devices or variations of them were only intended for private use, while others were predestined for public and social contexts. Lastly, whether they were designed to be only used indoors or the material that was used to create it and the robustness of the design allowed for the apparatuses to withstand the outdoors.

Peepshow box

Experimentations of European artists on the notions of vantage point and perspective have contributed to the creation of the family of devices that would ultimately alter viewer experience and the perception of space. The peepshow box emerged at the end of the sixteenth century as a mysterious closed or semi-closed box with one or multiple holes through which

one can visually access a separate space. Part of its allure was the enclosed construction of the box itself, revealing a hidden space that induced a sense of discovering the unknown. It is intended to excite but also to challenge, expanding people's sense of the world and their imagination. For nearly two centuries, versions of peepshow boxes appeared in the cities, transporting viewers through time and space with the purpose of 'edification or pleasure' (Balzer, 1998, p. 10, 12). The shows were exhibited worldwide, including Europe, where it presumably originated, North Africa, the Near East, India, China, Japan and the West (Huhtamo, 2013, p. 35).

Figure 9 - Operator of the peepshow box

The peepshow showman had an exceptional role in the show, providing at the same time public and private entertainment. The operator positioned himself or herself in public spaces, in the heart of the cities, on crowded streets or at busy fairs. He was advertising the show using his voice, cries and songs, and musical instruments to attract a larger audience. At the same time, the actual peeping show was very private, with each individual peeking through the holes. Since the number of participants was limited based on the structure of the device, the showman to retain the audience, enhanced their stories, or even engaged other props and trained animals to encourage people to stick around. Operators were not only bound to the cities but were also wandering travellers, pushing the cart with the device or having it mounted on the back with straps. (Balzer, 1998, p. 12, 14). Peepshow medium was universal to all, regardless of one's literacy, and at the same time unique as one may interpret the images and the story through their own perspective.

Peepshow boxes are known under several names and, throughout the years, have undergone multiple alterations as it was passed through the 'hands of artists and scientist to street entertainers' across various countries (Balzer, 1998, p. 12). The devices' essential features were typically retained, with the exception of various decorative customizations introduced to make the peepshow boxes more alluring to the viewer, like engravings, prints or cut-outs covered with pieces of colourful materials. Balzer categorizes the peepshow boxes into two types which mainly differ in their proportion, height, and depth. The first category of peepshow boxes was constructed with more depth rather than height. The depth was required when the viewing lens(es) were at the front of the device, and the image had to sit further back from the lens. The other type of peepshow boxes used height more than depth in their design as the means to create the required distance from the lens. These devices had a mirror positioned at a forty-five-degree angle in front of the viewing lens, redirecting the image placed at the bottom of the device. According to Balzer, the deeper peepshow boxes' design could accommodate multiple images,

whereas the second type could display multiple images but had no changing mechanism (Balzer, 1998, p. 28, 31).

Pictures were loaded inside the box and changed with intricate series of strings attached to each image, allowing the operator to show different images by pulling or releasing the other end of strings on the outer side of the box (Balzer, 1998, p. 28, 31). Another way was to remove and insert them by hand or by turning a hand crank. Most peepshow boxes included separate pictures, but some versions in the early 18th century used picture rolls. Some boxes were
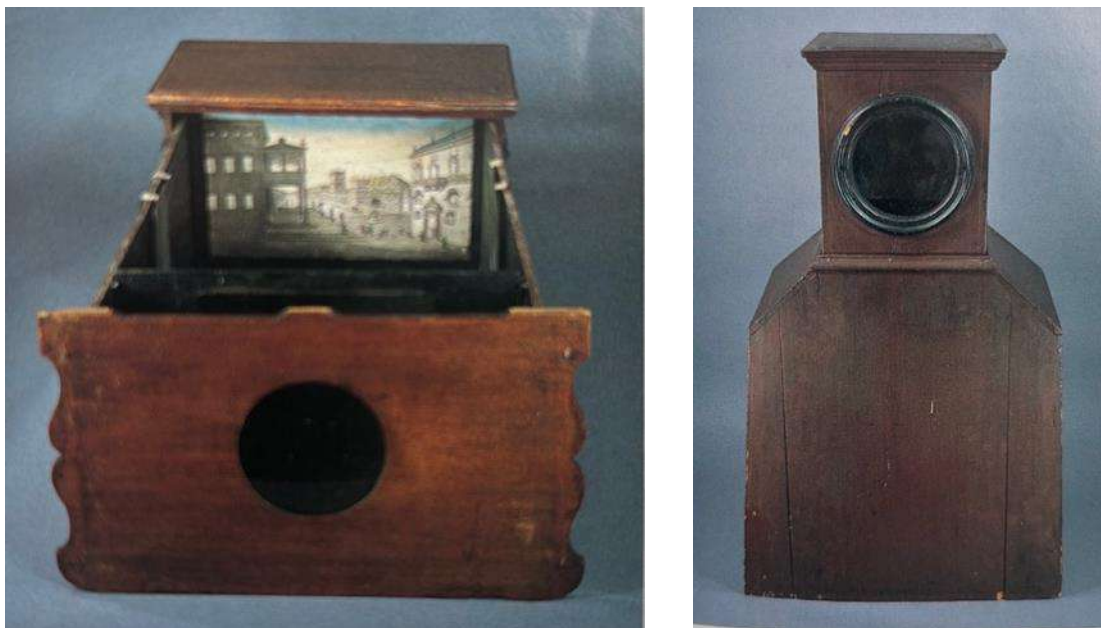

Figure 10 - Representation of the deeper (left) and higher (right) peepshow box

designed specifically for the particular roll, having it permanently installed within the box, oftentimes for private use. In public peepshows, boxes with detachable adaptors for picture rolls were utilized since the exchanging of the material was an important feature (Huhtamo, 2013, p. 35). A key feature common for both types of peepshow boxes was accommodations for illuminating the images. Devices had an opening at the top of the box to utilize natural light sources to light the image directly. Otherwise, a showman would use a candle or other light source behind the image to create a desired illusion for the viewer. If a lit candle was used for

the purpose of illuminating the picture, chimneys were incorporated into the design of the peepshow box to dispose of the smoke from the device (Balzer, 1998, p. 28).

By the end of the 19th century, travelling peepshows have largely disappeared from the cities and villages. The previously mobile apparatus has become a stationary item, and its last variation *the mutoscope* displayed moving images. Many of the first movie creators, like Thomas Alva Edison, were first playing their movies in public, not on a big screen but in a peepshow-like device, the Kinetoscope (Balzer, 1998, p. 36, 41).

Magic Lantern

As a media device, the magic lantern represented a significant advancement in optical devices such as camera obscura and paved the way for further developments in image projection technology. It was a precursor to modern projectors and is considered to be one of the earliest representatives of moving images. While exploring the history and evolution of magic lanterns through advancements in optical devices, this chapter will examine how the magic lantern influenced the development of other media devices up to the modern-day projector.

A magic lantern is an early image projector used primarily in the 17th, 18th, and 19th centuries. Early versions consisted of a vertical cylindrical structure that housed a lamp, a convex mirror, a lens, and a series of glass slides, which were hand-painted images that could be projected onto a screen or wall. Later versions featured a horizontal box form and added more lenses to focus the light beam through the transparent glass for a brighter image. This device was primarily made of wood and metal, with the source of light initially being an oil or wax lamp in the early versions and gas lamps, arc lamps and kerosene lamps in the later versions. Images were originally painted on glass slides in vivid, translucent colours and with an opaque outline. These images were usually of religious or educational content and were inserted into the device to be projected onto a screen or wall. The optical technics adopted in

this device were related to earlier spectacle devices of the time, arguably a descendant of the camera obscura, which was developed for drawing and painting landscapes and itself evolved into the earliest versions of the photography camera. Magic lanterns evolved through the 17th and 18th centuries, and more features and technics were added. This includes stereopticon magic lanterns, lanterns with three lenses, also called dissolving image apparatuses and moving image magic lanterns. The device changed over time with the development of new technologies. The introduction of the electric lamp in the late 19th century allowed for brighter and more stable light sources, which made the device more reliable.

Figure 11 - Magic lantern

The magic lantern, with the conceptual principals of its optical system, is said to be invented by Christiaan Huygens, a polymath with significant contributions in optics and physics in the mid-seventeen century. Several other figures contributed to the advancement and popularization of the magic lantern beyond its creation. The most notable proponent of this new medium was Thomas Rasmussen Walgenstein, a Danish mathematician, astronomer, and teacher whose magic lanterns performance shows brought this new device to fame across European cities in the later seventeenth century. It was Walgenstein who presumably

introduced the magic lantern to Athanasius Kircher (Lipton, 2021, p. 12). Kircher was a Jesuit priest who studied Hebrew, Egyptian hieroglyphics, mathematics, and geology and attempted to create a system of universal knowledge encompassing all disciplines. He used catoptric projection techniques for his lecture and performances and wrote about them extensively in his book Ars Magna Lucis et Umbrae in 1671. Through self-promotion, Kircher gained a false reputation as the inventor of the magic lantern, which was in part enabled by Huygens seeking to distance himself from his invention (Lipton, 2021, p. 12).

Magic lanterns were primarily adopted as a religious and educational tool in scientific lectures in the early decades. Only later, they were used as an entertainment device for a younger audience via magic lantern shows. Religious motives characterized Kircher's projections. By vividly portraying the godless world of spirits and ghosts, he evoked a sense of fear of God in superstitious nonbelievers (Lipton, 2021, pp. 4, 9). Not only by Kircher, but the magic lantern was also frequently used in another type of optical show as a Phantasmagoria device to create a sense of fear in audiences. By the 1730s, magic lanterns were widely used by travellers and storytellers in their touring shows. With the mass production of slides by companies like Philip Carpenter, the device became more available and affordable and was used for both education and entertainment (Talbot, 2006, p. 17). Geographically these devices were active primarily in Europe and North America. Still, they also spread to other parts of the world, such as Asia and Africa, mainly through religious missions and travelling entertainers. There was always a strong connection between magic lanterns and European religious establishments. Religious missionaries commonly used the device to aid religious education and evangelization, particularly in the 18th century. Missionaries would travel to far Middle East, Africa, and far East Asia regions and use magic lanterns to project images of religious figures and stories to teach about Christianity to local populations. Magic lanterns were an effective tool for religious education as the device allowed the projection of vivid and detailed images that captured the audience's attention and curiosity. The magic lantern and its use by the missionaries in the villages of India is documented by several records of *Proceedings of the*

Church Missionary Society. It is specifically described in the paragraph from the mission to the Bhagalpur region of India (circa 1850) from the Journal of missions to Africa and the East, published in 1890-91. '… After prayers in the morning, we left camp and worked on until dark in the evening, then, having had some food, we exhibited a magic-lantern to between 500 and 600 people every night, who had followed us from the villages we had preached in during the day; frequently we were obliged to go on talking up to eleven and twelve o'clock with men who asked "to hear more about this Jesus' (Church Missionary Society, 1890-91, p. 95).

Two different methods were used to project motion in the magic lantern. Lipton calls these techniques real motion and apparent motion. Real motion in the magic lantern is identical to what we encounter in the everyday world, and it can be simulated by moving a slide in the projector's gate, which subsequently moves the image on the screen. On the other hand, apparent motion is an illusion created by showing incrementally different frames in an appropriate order. For centuries, magic lanterns used real motion, such as moving slides through the projector's gate and using mechanical appliances (Lipton, 2021, p. 7). German scholar and lanternist Johannes Zahn may have invented the concept of projected apparent motion. His circular ensemble of six slides became widely used during the transition from the magic lantern era of the seventeenth century to the invention of celluloid cinema. Using a series of still images, Zahn created the illusion of motion and advocated using lanterns as an educational tool. While Zahn promoted the use of the magic lantern as a pedagogical tool, Christiaan Huygens was dismissive of his creation and considered the magic lantern an unimportant result of his more important work in mechanics or optics. His apprehension was concerning how the projection would be applied in the future and proven to be foretelling as the magic lantern quickly spread throughout Western Continental Europe as a device to 'terrify the superstitious and delight skeptics' (Lipton, 2021, p. 12).

Many cinema historians trace the beginning of cinema to the Kinetoscope. In recent years, this theory shifted, and its origins are said to be linked to the appearance of its

predecessor, the magic lanterns. Zahn's frame-by-frame animation technique and Huygens's projector are considered ground-breaking inventions that were the first steps toward cinema's motion technology. Their work enabled humanity to project moving images depicting reality and fantasy using science and artistry (Lipton, 2021, pp. 11, 12). Furthermore, Lenny Lipton, following the scholarly works of Huhtamo, Mannoni and Rossell, argues that the montage, the very essence of narrative in cinema, was invented by lanternist, the operator of the magic lantern devices by way of juxtaposing slides to tell a story. He also compares the performance aspects of the lanternist to the early cinema projectionists who were adjusting their hand-cranked 35 mm projectors based on the audience's reaction (Lipton, 2021, p. xii).

Panorama and Moving Panorama

Magic lanterns used projection-based techniques to captivate the viewer through light and shadow manipulation. However, there were other city spectacles that utilized a different method to immerse the viewer in a visual experience. These spectacles were not necessarily a device in the first place but rather a structure. These were circular panoramas that, instead of engaging the seated viewer with images and moving images, presented a wide-angle view of a landscape or cityscape and invited the audience to walk into the scenery and gaze upon the beautifully detailed drawn painting as if they were indeed in that space. These circular panoramas were displayed in specially designed rotundas or, later as moving panoramas, were presented as a series of paintings on long scrolls. Huhtamo points out the differences between moving panoramas and circular panoramas and states that it is not the subject matter of the attraction that sets them apart. Instead, it is how the attraction is presented, the structure of the viewing apparatus, and how the attraction is exhibited in practice. In other words, it is not the paintings that make an attraction unique but the way they are displayed and experienced. Circular panoramas focus on creating a sense of immersion in a specific place or event while moving panoramas focus on telling a story or presenting information through a combination of different techniques. The goal of moving panoramas is to create the feeling of virtual travel,

but this is not as relevant as creating a seamless immersion experience in circular panoramas (Huhtamo, 2013, p. 8).

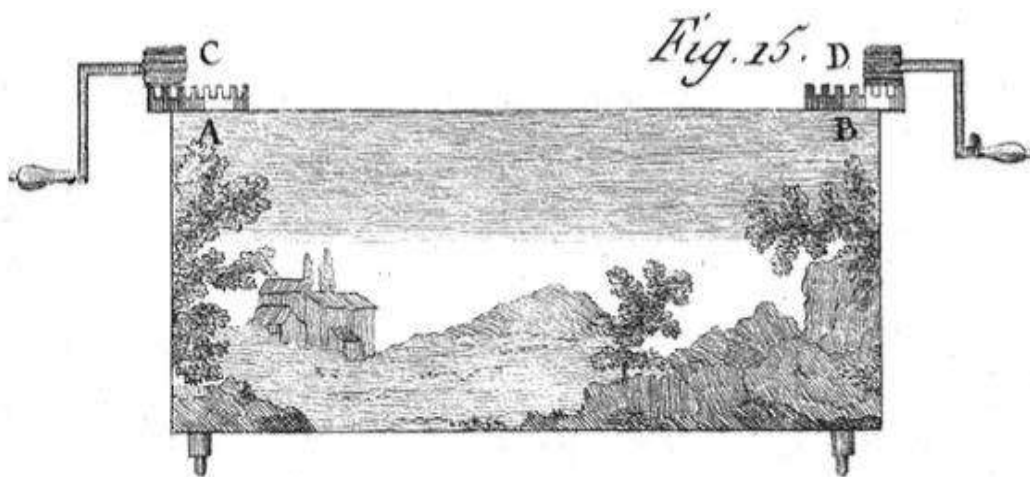*Figure 12 - Famous twin panorama rotundas in Paris*

Figure 13 - The earliest known illustration of moving panorama mechanism

Similar to peepshows, the practice of storytelling through a series of images was the core idea of moving panoramas. Both shows displayed images that could be unrelated to each other, and the stories and lyrics they accompanied might not accurately describe what was seen. In contrast to the peepshow, the viewer was not focusing on one image at a time, unknowingly peeping through a hole of the device. They were entertained by continuously moving imagery, which

engaged the viewer and created a sense of anticipation. Relying on the scroll's length, moving panoramas displayed such imagery as landscapes and even scenes of battles. Considering this, both peepshow boxes and moving panoramas were successful entertainment devices in their respective time. This success can be attributed to the fact that they relied heavily on the viewer's imagination rather than the impressive technical advancement of the device or accurate and in detail description and representation of the subject, as was the case in circular panoramas.

Mobile panoramas were not the first devices to use picture rolls as the medium to present images. There were Egyptian, Roman and Chinese precedents for this practice in different forms. However, the closest version of these picture rolls can be traced back to the Japanese landscape rolls of the ninth to sixteenth centuries CE. These rolls, used by the professional storyteller to accompany storytelling practices, were inspired by their much older Chinese counterparts (Huhtamo, 2013). The images used in the practice of storytelling were not always in the form of rolls but sometimes in the form of large paintings like the Iranian Pardeh-Khani practice. However, the large format painting lacked the same sense of surprise as the whole picture, often busy, was revealed to the audience at once. An essential part of these visual and auditory practices was the storyteller itself. One might argue that his storytelling skills made up for the lack of visual effects and impressive technological advancements that were the main attractions of the future devices. As Huhtamo notes, the storyteller had a great deal of expertise in engaging his audience with various parts of the story by changing his tone of voice and pointing to various parts of the picture (Huhtamo, 2013, pp. 32-34).

In essence, Panoramas and moving panoramas of the 17th century were precursors to the motion picture and cinema in the history of image spectacles. Both forms of entertainment sought to immerse the viewer in a visual experience, whether through a large format, wide-angle painting or series of paintings that depicted a landscape or cityscape in circular panoramas or through a series of paintings on long scrolls that were unrolled to give the illusion of

movement by moving panoramas. In this sense, they were an early form of visual storytelling and immersive experience that allowed people to see faraway places without ever leaving their hometowns. They presented the countryside landscape to the city dweller and, in reverse, the hustle and bustle of the city to the villagers. However, Huhtamo is cautious of connecting these practices directly to the appearance of moving images as they were in a completely different social context and often, at least when they were active, had a very different role than just entertainment. In the Japanese context, the storyteller was not only an entertainer but also a shaman or exorcist, and the practice was considered holy. These practices eventually became part of children's entertainment, as with other peepshows and lantern shows (Huhtamo, 2013, p. 34). The same goes for Iran's Pardeh-Khani tradition, where the minstrel describes religious events through large painted pictures as a traditional religious storytelling practice. These practices, along with other optical advancements, such as magic lanterns, extended the idea of moving images and the concept of visual storytelling, which eventually evolved into the invention of motion pictures and cinema.

Smartphones, XR and Beyond

Technological advancement led to the decline of mechanical devices, such as the magic lantern, as it became less popular for entertainment and educational purposes and eventually fell out of use in the early 20th century with the rise of motion pictures and the development of projection technology. The modern-day projector has undergone a significant transformation with the advent of digital media and technology. Devices such as mobile phones or VR headsets, which at first sight might not seem related to these early spectacles, fundamentally share the same principles of optics and the idea of imagination and anticipation. Understanding how these devices appeared and strategically shaped the urban landscape and the viewer's experience is critical.

Photography played a crucial role in developing digital devices and augmented reality. In the 19th century, advancements in photography techniques and equipment, such as the invention of the daguerreotype and the development of flexible film, laid the foundation for capturing and reproducing visual images more efficiently. Photography enabled the preservation of real-world scenes, providing a basis for visual documentation and representation. The subsequent evolution of film technology in the late 19th and early 20th centuries further propelled the advancement toward digital devices. The invention of celluloid film and the introduction of motion picture cameras and projectors revolutionized capturing, displaying, and experiencing moving images. As films became popular entertainment, the cinematic experience gradually evolved. During the 20th century, the film industry embraced various innovations, including colour film, sound synchronization, and special effects. The development of film cameras and projectors allowed for more accessible and widespread distribution of movies, bringing visual storytelling to larger audiences. These advancements in film technology allowed for the eventual integration of digital components.

Digitalization has changed how we project images but has also influenced how images are produced and consumed. As technology progressed, combining digital electronics and advanced computing gave rise to digital imaging and the advent of the digital camera. The transition from traditional film-based to digital photography began in the 1980s and gained significant momentum in the following decades. Digital cameras present numerous advantages, such as instant image preview, storing and manipulating images digitally, and more accessible sharing and printing options. Digital media and technology have expanded the projector's capabilities beyond an image-based scientific or entertainment device and into a device that encompasses a wide range of functions such as communication, consumption, and interaction, a mobile smartphone. The introduction of smartphones with internet connectivity further expanded their capabilities, enabling users to access and consume digital media on the go. This has allowed for a more dynamic and interactive experience in urban spaces, blurring the border between a public space and a private medium. Smartphones fundamentally altered how we

interact with our surroundings and have become an integral part of our daily lives. They have enabled us to access and consume digital media on the go, to experience *lived space* in the digital world beyond reality. Mobile devices have allowed for unprecedented mobility, connectivity, and engagement with and within our surroundings. This argument has been the main interest of the workshop and an experiment that was conducted during the course of this thesis. The outcome presented as an installation in the form of a handmade interactive media device (figure 14) taking ideas from the essential attributes of Shahr-e farang (Appendix C).

This has led to the development of new projection-based experiences, the extended reality technologies (XR), that would not be possible without the advent of smartphones. The XR refers to any computer-generated, simulated, 2D or 3D environment allowing real-time interaction. Those virtual worlds can be an exact copy of the real world, representations of
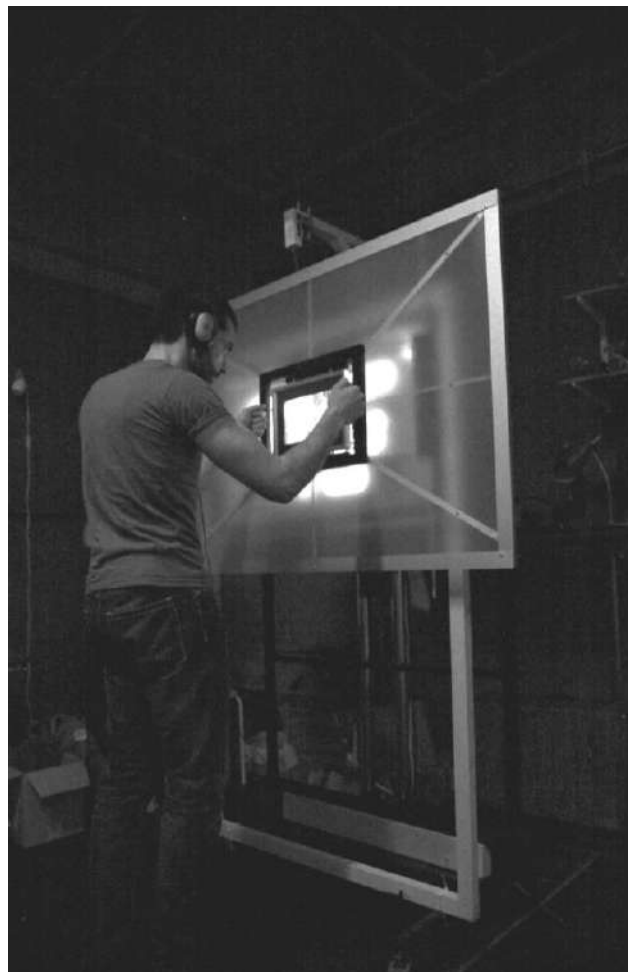

Figure 14 - Moment 2:45 Installation

fictionalized versions of reality, or they can be entirely fictional universes where anything is possible. Users interact with them in numerous ways, fully immersing themselves in a computer-generated virtual reality (VR) or partially by experiencing a fusion of the physical and virtual world through augmented reality (AR). Virtual reality can be created for entertainment, in the most popular form as games and as immersive experiences, like live concerts or virtual tours in museums. Its other purpose can be educational, vocational trainings, to socialize or even as a testing ground for real-world applications. Several cities have been recreated as digital twins and linked with real-time data feeds covering traffic, weather, and other civic services, to give city planners a deeper understanding of the cities they manage and make better decisions on zoning or policies. (Ball, 2022). This digital *representation of space* (the conceived) proves to be an important testing ground for the future creation of urban spaces.

Rapidly improving mobile devices like smartphones or tablets have enabled immediate access to the virtual worlds from nearly anywhere. A more immersive experience can be achieved through use of head-mounted displays or glasses. Moreover, with the increasing popularity of this XR technology, more devices are predicted to appear on the market, offering enhanced, multi-sensory experience of the virtual world, wearables like gloves or bodysuits, with the ability to provide physical (haptic) feedback, simulating what is happening in the digital reality, but also more advanced technologically brain-to-computer interfaces (BCI). Under development since the 1970s, BCI can potentially allow a person to control the virtual world, through non-invasive ways, like a grid of wired sensors or invasive, to the degree defined by the proximity of electrodes to the brain (Ball, 2022).

Smartphones changed how we interact with the physical world, our perception of spaces and social interactions. In the same way, the development of extended-reality technology and its devices are said to contribute to the future expansion of the virtual world, referred to as a metaverse (Ball, 2020), promoting a shift into a new digital society. The term metaverse was coined by author Neal Stephenson in his science-fiction novel *Snow Crash* (1992). Stephenson

describes the metaverse as 'a persistent virtual world that reached, interacted with, and affected nearly every part of human existence' (Ball, 2022). Characterized predominantly by the usage of real-time rendered 3D technologies and existing solely in a virtual world, the metaverse's arrival and, more importantly, its effects are largely unclear. It can be experienced synchronously, persistently, by an unlimited number of individuals and with a continuity of data, ranging from history and objects to communication and payments (ibid.). Some of those key features are already present in virtual reality video games, for example, the gaming site *Second Life*. These multiuser virtual environments allow users to 'create 3D environments and objects and move through them with their avatars, engaging with other users in real-time' (Moneta, 2020, p. 37). In contrast to games created in a fixed environment, *Second Life* environment was created with the intention of being filled with user-generated content, blurring the boundaries between the digital and the real world. It generates content such as art performances, political campaigns and even adult entertainment and is ever-changing since its users are not just passive guests but 'proprietors' of this virtual space. The creation of space is not defined 'by the static visual character but by the space that is happening' (Moneta, 2020, p. 40-41). The production of this virtual space is only limited to the imagination of the user. The user conceives, perceives, and even lives within the virtual space. Resembling the concept of an image of elsewhere, the virtual world and possible future expansion of it serves as a window to the other world. The combination of the advancements in digital photography, the integration of cameras into smartphones, and the development of AR technology allowed for the seamless transition from mechanical devices such as peepshow boxes and panoramas to digital devices and augmented reality experiences.

MEDIA DEVICES IN IRAN

In the 17th, 18th, and 19th centuries, the development of image spectacles in Europe was still in its early stages, but several technologies were already being developed in parallel. For example, during the 17th and 18th centuries, as discussed earlier, magic lanterns were

popular forms of visual entertainment that used projections to create the illusion of movement. The practice of storytelling by lanternists and many other aspects of these devices were borrowed from previous or parallel devices such as camera obscura, peepshow boxes and other mediums. Their exact invention date, which techniques were added, and how they developed remain debatable. Similarly, the development of media devices in Europe during the 17th, 18th, and 19th centuries was also marked by a high degree of experimentation and innovation in the fields of optical entertainment and education. Therefore, the parallel development of multiple devices in different fields contributed to the non-linear path of media devices in Europe.

While the path of media history in the western world is not linear, their very existence is well-established and documented. It can be understood as a series of technological, political, social, and economic events that eventually led to the invention of cinema. In contrast, it appears that the media history in Iran is fragmented, under-researched and in some parts vague. There are various academic writings on western pre-cinematic devices such as Kinetoscope, and the connection between these devices and prior devices, such as magic lanterns (Barnes, 1997; Musser, 2018; Nowell-Smith, 1996).

This thesis looks at a mobile, Iranian image-based entertainment device which, as I will argue, has emerged in the critical point of transformation of images as a medium in an urban context. In order to study a device that was mainly provoking the imagination of its viewer, it is crucial to have a better understanding of the history of image spectacles in Iran. The pivotal moment of change in the history of modern media in Iran was the introduction of photography. This landmark was parallel with other early steps of modernization in Qajar times in Iran, bringing about profound changes and leaving a lasting impact on various aspects of Iranian society. At the time, photography was a rapidly emerging medium worldwide, and its arrival in Iran represented the country's engagement with modern technologies. The introduction of photography and, eventually, cinema during the Qajar era in Iran profoundly impacted the country's image and media history. It revolutionized visual documentation, challenged

traditional modes of representation, shaped Iran's visual identity, and played a significant role in developing media and media technologies. This pivotal moment marked Iran's engagement with modern technologies and its contribution to the visual culture of the time.

Therefore, this thesis is looking at the history of image mediums during the era of photography and after that, up to the appearance of cinema. The Shahr-e farang has been proclaimed the national cinema by some scholars, so it is crucial to understand why this device has been dubbed as such. By looking at the history of media devices in Iran in the late nineteen century, it is essential to consider the idea that there were many parallel motives, movements and events that were happening at the same time and attempt to separate their individual part in the development of the modern media in Iran would seem if not impossible, futile. As Moxey

Figure 15 - Standing Portrait of Nasir Al-Din Shah (before 1896)

mentions, 'The history of art faces the disconcerting possibility that the time it imagines, history's very architecture, is neither uniform nor linear but rather multivalent and discontinuous. '(Moxey, 2013, p. 1)

Photography in Iran

Contemporary Iranian media history can only be understood if we understand how photography and film were introduced into society and culture. Photography and film, or in a broader context, the modern recording history of Iran, is closely connected to imperial history (Mottahedeh, 2009). This is specifically with regards to the Qajar dynasty, which lasted from 1789 to 1925, as they were the ruling family in Iran at the time when most of the advancements in photography and cinema were happening in Europe. The Iranian Qajar court was influenced by foreign technologies and practices. Regarding photography, for instance, the first equipment arrived at the court as a royal gift from Tsar Nicholas I (Berezin, 1852) and Queen Victoria during the short reign of Mohammad Shah Qajar (reg. 1834-48). The photography technology and the required devices arrived relatively early after its invention in the West. It was the technics and the knowledge of photography that was missing in the court.

The Qajar era in Iran, as outlined in Chapter One was a time of significant transformation for the country as it began to modernize and open up to the outside world. Photography played an essential role in this process, as it was used to document the changing landscape and society of Iran. The early pioneers of photography in Iran were foreigners who brought the technology with them. It was not until the late nineteenth century that Iranian photographers began to experiment with the medium and develop their own style. The opening of Dar-al fonun (Polytechnic college) in 1851 in Tehran by Amir Kabir marked the beginning of modern education in Iran. Initially founded to train military officers, its subjects widened to many other specialties, including medicine, surgery, geology, natural sciences, and mathematics (Ādamīyat, 1354, p. 355). Instructors of the new college were employed in

Vienna, and the first group of tutors, composed of teachers from Czech, Italy, Switzerland, and Austria, entered Tehran. Later, other instructors, either Iranian or foreigners who were living in Iran, were recruited to complete the team of tutors, while some were needed in the first years as interpreters. Among them, there was French Jules Richard[2], who had been already living in Iran as a language teacher for the royal family. Jules Richard was a French adventurer whose initial intention for entering Iran in 1844 is not clear, but he later introduced daguerreotype photography to the court (Afshar, 1983) and inadvertently made an important contribution to the history of media in Iran.

During Mohammad Shah Qajar's reign, photography served only the court. However, within a decade later, several foreign photographers based in Tehran introduced various methods and new techniques. These photographers were mostly army officials or personnel attached to foreign commissions. It was about time for the world of photography to move from the royal court to the streets of Tehran. It was Naser al-din Shah (reg. 1848–96) who established the first photography school at Tehran Polytechnic, Dar-al fonun. He became a photography enthusiast and encouraged Western practitioners to set up studios in Iran (Howe, 2006), which resulted in having more affordable practices and familiarizing the public with the new phenomenon.

One of the earliest and most prominent photographers of this era was Antoin Sevruguin, who was of Georgian-Armenian origin and operated a studio in Tehran. Sevruguin began his photographic career in 1872 and produced a wide range of photographs, including portraits, landscapes, and architectural images. His photographs are a valuable historical record of the country during this period, as they provide a glimpse into the daily lives of Iranians and capture the diversity of the cultures and societies at the time. It is worth mentioning that with regard to this thesis, one of the oldest photographs of the Shahr-e farang is indeed from the works of

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[2] Rishar Khaan who later changed his name after turning to Islam to Mirza Reza Khan, not to be confused with Jules Richard (1848-1930), one of the pioneers in stereoscopic photography branded as Verascope.

Antoin Sevruguin. The photographs of Sevruguin are considered a significant part of Iran's photographic heritage.

Figure 16 - Two Persian Women, Late 19th/Early 20th Century

Photography played a crucial role in the Qajar era as a means of recording and interpreting the rapid changes taking place in the country during this time period. The early photographers, both Iranian and foreign, captured the diversity of the cultures and societies of Iran and left behind a valuable historical record. Their work demonstrated the technical skills, artistic visions, and experimentation that characterized the history of photography in Iran during this transformative period. The arrival of photography instruments and other visual technologies in Iran initiated a new era in how images are used in the city. By the time photography studios were established in the courts and streets of Tehran, another parallel wave of the creative act was slowly shaping. This thesis argues that the peepshow boxes, which allegedly were first introduced to the royal court in the form of exclusive entertainment, transformed into Shahr-e farang, a device that was operating on the streets of cities and villages for every social class.

Post Photography Era

Moving image, cinematography, projection and eventually, the cinema was introduced to Qajar Iran in the early 1900s, as a means of entertainment and a curiosity object for the royal family and the court. It quickly became a popular form of entertainment not only for the higher class of citizens but the public. The introduction of the cinema was met with mixed reactions. Some saw it as a form of modern entertainment, while others viewed it as a corrupting influence on Iranian culture (Naficy, 2001). Qajar Iran had a rich history of visual entertainment, including traditional Persian theatre, shadow puppetry, pardeh khani and arguably magic lantern and peepshows. These earlier forms of image spectacle laid the foundation for introducing and accepting cinema in the country. Additionally, in parallel with the historical advancements in photography, film and cinema industry in the West, the Qajar dynasty had a strong interest in technology and innovation. This arguably also contributed to the quick adoption of cinema in the country, and its growth in popularity.

Mirza Ebrahim Khan Akkas Bashi, also known as Mirza Ebrahim Khan, was an Iranian photographer and businessman and the first Iranian filmmaker. He was born in 1875 in the city of Isfahan and later moved to Tehran, where he began working as a photographer. In the 1890s, while studying in France, Mirza Ebrahim Khan was introduced to the new technology of motion pictures. Upon his return to Iran, he began experimenting with filmmaking and produced the first Iranian film in 1900. The film was a short documentary that depicted a traditional Persian sport, and it was shown in one of the first cinemas in Tehran. Mirza Ebrahim Khan continued to work in photography and filmmaking, and he is believed to have made several short films in the early 20th century. Mirza Ebrahim Khan is considered to be a pioneer of Iranian cinema, and his work laid the foundation for the development of the Iranian film industry.

Western filmmaking techniques and styles heavily influenced the early years of Iranian cinema. As the country began to develop its own national identity, filmmakers began to

incorporate elements of Iranian culture and history into their work. One of the most notable examples is "The Lor Girl," released in 1925, which was the first Iranian film to feature an entirely Iranian cast and crew (Naficy, 2011).

CHAPTER THREE:

SHAHR-E FARANG

WHAT DO WE KNOW?

In this chapter, I explore the phenomenon of Shahr-e farang by first examining peepshow boxes as represented in Richard Balzer's book (Balzer, 1998). Balzer's visual directory provides a valuable resource for understanding the diverse range of peepshow boxes

Figure 17 - Shahr-e farang, Displayed at Golestan Palace (date unknown)

worldwide. It serves as a foundation for our subsequent analysis of Shahr-e farang, allowing us to study similarities and differences between these peepshow boxes. Using Balzer's book as a visual reference, every represented peepshow box is meticulously documented and analyzed (Appendix B). The aim is to identify the components and practices of this form of entertainment, encompassing the device itself, its users and surrounding context, and the operator's role. Through this analysis, this chapter seeks to determine if the information derived from images aligns with other descriptions and documentation of Shahr-e farang.

With limited recorded evidence regarding the origins of Shahr-e farang, this chapter presented existing alleged theories on how this device appeared in Iran. By examining these theories, we assess their potential as plausible explanations for the appearance of Shahr-e farang in Iran in the late 19th century. This examination allows us to form a deeper understanding of the historical context and influences surrounding the device and shape an alternative theory on the appearance of the device. Recognizing the lack of academic information available on Shahr-e Farang, an exhaustive search was conducted throughout the duration of this research for any possible data related to the device. This comprehensive approach enabled gathering of a wide range of information, which was categorized and analyzed to extract valuable insights into the nature and characteristics of Shahr-e farang.

One significant similarity that emerges from examining theories on the origins of Shahr-e farang is its appearance during the reign of Mozaffar ad-Din Shah. To evaluate the credibility of this connection, a careful study of Mozaffar ad-Din Shah's diary entries in its original language, Farsi, was conducted. By reviewing the content and context of the diary, we seek to determine if there is substantial evidence linking the device to this specific moment in history.

The next step was to review the available photographic records of Shahr-e farang, to compare these images with the peepshow boxes analyzed earlier. This comparative analysis

allows us to identify similarities or differences in the device's appearance, technical aspects, materiality, and function. By closely studying these records, we aim to gain a better understanding of Shahr-e farang's visual and technical characteristics. In addition to visual representations, textual descriptions offer valuable insights into Shahr-e farang. This thesis explores a selection of text-based documents that provide accounts and descriptions of the device. By analyzing these descriptions, we aim to find consistent elements and potentially fill gaps in our understanding of Shahr-e farang.

Finally, a comprehensive field examination of one of the remaining devices was conducted to gain first-hand knowledge and insights into the device. This examination is divided into three key categories: form, function, and user analysis. By closely examining the physical characteristics, operational mechanisms, and user experiences, the aim is to provide a comprehensive understanding of Shahr-e farang's design, functionality, and the way the user has used it. In this chapter, I focused on an extensive exploration of Shahr-e farang, drawing on visual representations, theories, historical records, and a field examination. By synthesizing the findings from these diverse sources, we aim to contribute to a deeper understanding of the origins, characteristics, and significance of Shahr-e farang as a peepshow box in the context of Iran.

Peepshow boxes in the timeline

Peepshows, as they are known in England or U.S. were recognizable under different names in different countries: 'in Holland, *optiques,* in Germany, *guckkasten,* in France *boîte d'optique,* in Italy *mondo nuovo'* (Balzer, 1998, p. 17). Richard Balzer, in his book, *Peepshows A visual history* (1998), displays an extensive record of peepshow boxes and presents a variety of devices from around the world. Although not complete according to the author, this catalogue of peepshow boxes documents a variety of devices from the eighteenth to the twentieth century spanning a vast geographical territory from England to East Asia. This thesis presents collected

visual data on peepshow boxes, attempting to establish a method to compare, analyse and categorize different attributes of these devices (see Appendix B and figures 18 to 20). It is also with the intention to locate Shahr-e farang as an Iranian version of this peepshow box in this context and identify possible similarities and differences with the other devices.

The aim of the study was to collect information about the peepshow device itself, not its representation. Therefore, in the course of this analysis, some of the images were excluded on account of being reproductions or exact copies of the original image. As Balzer mentions, 'once image became popular, different engravers would reproduce the image with slight modifications or changes, or simply reprint it, over many decades' (Balzer, 2018, p. 136). The analysis focused on presenting the visual characteristics of the device as well as its surroundings depicted in the image, particularity related to its users and the operators. The operators were mostly portrayed as animated, as if during telling the story or entertaining the audience with various props and instruments. Another characteristic was related to the operation of the device, what could be observed are either movement of the operators or visible features of the box, such as string, rotating crank, or none of these and only by hand, alluding to the way images were interchanged. It is worth noting that in the 19th century, the strings were most commonly observed as a changing imagery method among the collected samples. One of the features of the box that was of interest to this study was the number of lenses. On average among presented depictions were three lenses per device. Based on collected materials, devices with more than three lenses appeared during the 19th century. As the number of lenses per peepshow box grew, the operator was able to perform to a larger group but in contrast, could limit the mobility aspect of it. Lastly, the support of the peepshow box could potentially offer insight into the portability of the device. Most of the devices were supported on legs or foldable stands, even multiple if the size of the device was above average. Few peepshow boxes, which representations dated back to the mid-19th century displayed features of a permanent structure.

Figures 18 to 20 are visual representations categorizing collected visual data. These graphical representations serve as a tool to present a comprehensive perspective on various characteristics or aspects of peepshow boxes. The data is from a collection of various peepshow boxes over time and from different locations, allowing a comparative study and analysis of how peepshow boxes have evolved or varied in different places. The figures aim to provide a visual overview of this information and are intended as an example of a data analysis tool to be expanded and improved by further research and data collection.
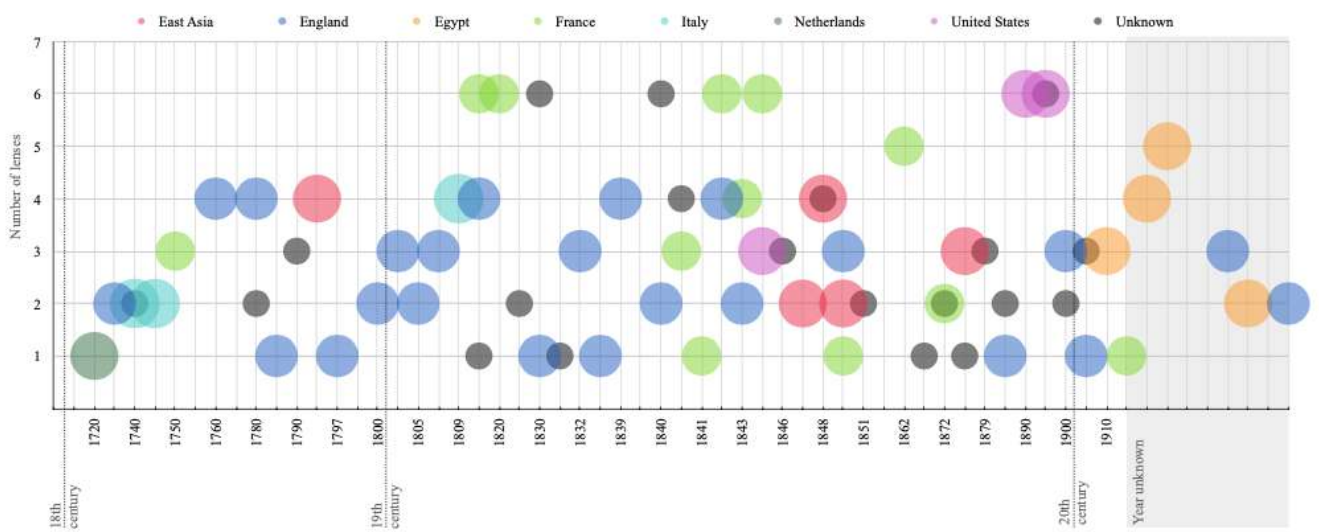
Figure 18 - Number of lenses on the peepshow device
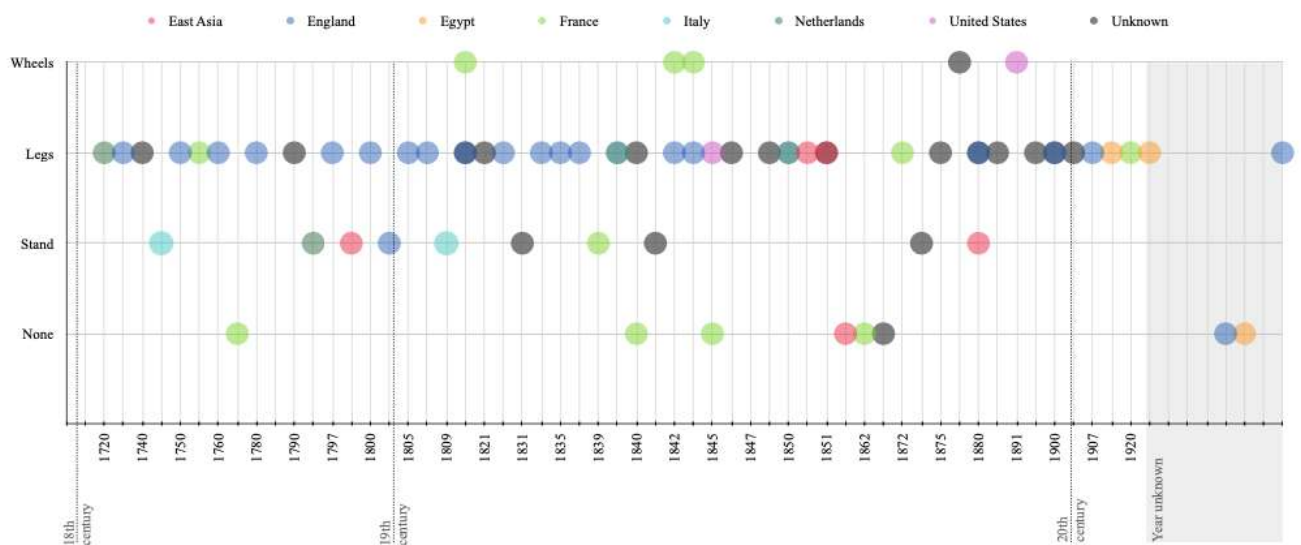
Figure 19 - Support of the peepshow device

Figure 20 - Operation of the peepshow box

The analysis of the representations of the peepshow boxes is an ongoing effort and a potential model contributing to a deeper understanding of the device and its context. With the remainder of this chapter focusing solely on the Shahr-e farang, one may observe various similarities and differences with the Iranian apparatus.

Theories on the origin of Shahr-e farang

One of the commonly proposed explanations for the origins of Shahr-e farang in the history of media in Iran is that it was introduced as a result of the first travel of the Shah of Iran, Mozaffar al-Din Shah, to France in 1900. According to this theory, while visiting the world's fair Exposition Universelle in Paris, the Shah was reportedly impressed by the capabilities of a device and ordered his court photographer to purchase it and bring it back to Iran. This hypothesis suggests that Shah's encounter with the alleged Shahr-e farang in France was the catalyst for its introduction and widespread use in Iran's urban entertainment industry in the upcoming years.

Although partially accurate, the theory regarding the introduction of Shahr-e farang to Iran through the travels of Mozaffar ad-Din Shah is lacking crucial information to be fully accepted as the definitive answer. It is a known fact that Mozaffar ad-Din Shah visited Paris in 1900 and followed in the tradition of his father by writing a travelogue detailing his experiences and observations during the trip. This diary, which provides an in-depth description of the places he visited and his activities during the travel, holds the key to determining whether he actually encountered such a device. By examining the contents of the diary, we may be able to gather additional information and gain a better understanding of the origins of Shahr-e farang in Iran.

A more recent hypothesis regarding the origins of Shahr-e Farang is a variation of the previously mentioned theory. This hypothesis suggests that this device, a widely popular children's entertainment apparatus used in Iran was actually a modified version of the device that Mozaffar ad-Din Shah saw in Paris. It was purchased and brought back from France and then in Iran, a version of this device developed and became popular. Although this theory is closer to the idea that this thesis is proposing, it still lacks certain details that make it not the definitive answer to the question of the origins of Shahr-e farang. Nevertheless, it is still a widely accepted theory, although it is not as widespread as the initial hypothesis that was mentioned.

Travelogue of Mozaffar ad-Din Shah

In examining the theories surrounding the origin of Shahr-e farang, the first step is to study the diary of Mozaffar ad-Din Shah Qajar, *Safarname Mobarake Shahanshahi* (1321 AH), meaning The Blessed Royal Travelogue, on his first trip to Europe, published in 1903. As written by the king of Persia at the beginning of his diary, the travelogue of Mozaffar ad-Din Shah is written in simple language, a reportage of his day-to-day activities with no deep analysis or questioning of the matters that he sees. He simply describes the exact course of events that

he attends, places he visits, people he has interacted with and the ones who have accompanied him. The straightforward act of a written diary can be easy to read and understand by the public in Iran. The audience for the travelogues created by Mozaffar ad-Din Shah during his travels to Europe is not definitively known. However, these accounts served as a way to depict a mental image of the West to his readers through the descriptive language of the Shah. This function is similar to the visual representation of foreign lands through the lens of Shahr-e farang, a term used in Persian literature to describe the depiction of foreign lands.

On page 107 of the king's diary, he describes his encounter with two devices in Contrexéville, France before they arrive at Paris. The exact location of this presentation is not clear but most definitely it is not a theatre or hall but rather a room. He describes asking Akasbashi, the court photographer, to ask the person who had brought these devices from Paris to set them up for viewing. The devices were prepared in the late afternoon, and Shah and others went to a place near guest house to view the devices in a darkened room. Shah was impressed with the innovation of the devices, seeing them as 'good things.' He describes what was shown as pictures of buildings from the exposition in 'wondrous ways', including 'the expression' of the rain and the Seine River in Paris and more. Shah also mentions that he ordered Akasbashi to obtain all these devices. In his text, Mozaffar ad-Din Shah places emphasis on naming the devices, specifically referring to them as 'the cinematograph' and 'lanterne magique', which is the French term for the magic lantern. In some of the scholarly articles on the origin of cinema in Iran, when referring to these lines of the travelogue, the author is simply translating both devices to the cinematography devices, perhaps appropriating the names to the context of the research. It is important to maintain the terminology used in the original text in order to identify these devices. By looking at the history of magic lanterns, their attributes and the historical context that we established in Chapter 2, it can be presumed that the devices that Mozaffar ad-Din Shah encountered in this exert of the travelogue are allegedly a more elaborate and developed form of the magic lantern with dissolving images that can produce an expression of movement. He refers to it as a magic lantern either as per his previous knowledge of this type

of device or as it has been introduced to him at the time of encounter. It would be still a question that why or if there were two devices at this presentation and whether or not both of them were involved in the show.

The Qajar Shah then on page 154 describes his experience in the *Illusion Hall* at Exposition Universelle in Paris in 1900:

'… at 9 pm we went to exposition and the ceremony hall that they were showing 'cinema-photograph' that is the embodied and moving image. And then we went to "Illusion" hall that its description is as follows; first we entered the especial door of this hall, in the evening and while the exposition lights were on, when we entered the ceremony hall it really drew our attention. It really is a great building. It is a big place twice the size of Tekyeh Dowlat. It is similarly circular and roofed in engraved crystals. And around it there are two levels of red velvet seats that is built for people to sit. In this hall they show 'cinema-photograph'. They erected a big screen in the middle of the hall and turned off all the electric lights and darkened the place. They projected 'cinema-photograph' images on the screen, they showed a lot, including African and Arabia travellers passing the African dessert on camels that was very spectacular. Also, exposition, the moving street, the Seine River, the sailing ship on the river and people swimming and other things were shown that was very spectacular. I ordered the 'Akasbashi' to buy all of them, bring to Tehran that 'Insha Allah' (if God wills) we show it to our servants there …' (ibid.)

By looking at these two encounters and comparing the vocabulary that Mozaffar ad-Din Shah uses to describe these devices, one can argue that the device he encountered in the first place in Contrexéville might not have produced a moving image, as he specifically mentions this in the Paris Expo encounter. Instead, it was an image with a sort of illusion or special effect that mimicked the effect of rain and expressed this effect as he denotes. Another aspect that is clearly mentioned in both interactions is that the room had to get darkened for the

show to proceed. This would be an obvious environment for a projecting device. Therefore, one can argue that the spectacle that Mozaffar ad-Din Shah encountered in the Contrexéville presentation was not a type of peepshow, kinetoscope or any other image-based medium involving a lens that requires the viewer to look through. Room darkening is not only an unnecessary step for these devices but also causes interaction with these devices even more difficult. As for the order of purchase, it is clear that he is ordering the court photographer to purchase the cinematograph device as well as the magic lantern.

Having correctly identified these devices, does Shahr-e farang share any similarities, visually or in function with them? Shahr-e farang as will be discussed further in this chapter is a version of another group of spectacles, peepshow boxes and perhaps moving panoramas. In appearance, it has no similarities with either magic lanterns or cinematographs as they were both projecting devices. As a function, similarly, they had fundamentally different functions. One was the box with a magnifying lens, requiring the viewer to gaze through them in order to see a range of images, sometimes backlit, sometimes opaque and was accompanied by a narrator. The other was a projecting device that did not require the viewer to look through the device and was using the projected image to amuse the viewer. Although Shahr-e farang is

Figure 21 - Peepshow box (1877)

recognized as the Iranian version of universal peepshow boxes and shares fundamental functions with these devices, it is visually completely distinct from the other peepshow boxes. This unique characteristic of visual identity is also apparent in peepshow boxes from East Asian countries (figure 21).

During the data collection process, this thesis came across a distinctive version of a magic lantern or, specifically, a phantasmagoria that resembles Shahr-e farang. Phantasmagoria was a spectacle invented in the late 18th century by European projectionists. It involved using a device that was concealed from viewers called a "Fantascope," a perfected magic lantern. The Fantascope could project images that appeared larger or smaller by moving on wheels or rails behind a screen. The device had lenses with diaphragms and racks to adjust light intensity and lens position. Etienne-Gaspard Robert, also known as Robertson, patented this principle in 1799. Initially, there was one Fantascope, but later, two were used to create mobile cross-fades.

Figure 22 - Robertson Fantascope, (1853)

The device had two imposing lenses with condenser lenses, cranks, and movable shutters for fade-ins. Two oil lamps lit the images, and smoke was evacuated through chimneys (figure. 22).

The large Fantascope had additional accessories such as spare lenses, kerosene lamps, mechanized plates, and frames (LA CINÉMATHÈQUE FRANÇAISE, n.d.). The device that specifically resembles Shahr-e farang is a large phantasmagoria lantern or Fantascope discovered in Girona, Spain. The lantern was manufactured in the mid-nineteenth century, measuring 175cm x 67cm x 81cm. It is a rare exhibit with only two similar lanterns known to exist and was purchased by a secondary school in Girona in the mid-nineteenth century (Fernández, 2017). The overall dimensions, the construction of the main body and the materiality of this device resemble the physical attributes of Shahr-e farang (figure 23). Therefore, the question arises, was Shahr-e farang a reappropriated, modified, less sophisticated

Figure 23 - Phantasmagoria Magic Lantern, (c. 1850)

version of this Fantascope? These types of Fantascopes were not supposed to be seen by the audience and were operated in a room or space behind the main stage and away from the viewers. As in Shahr-e farang and other peepshow boxes, they are intended for direct viewer use. Without the possibility of constructing or obtaining the sophisticated projecting lenses used in these types of Fantascope devices, it is possible to modify the device to a less sophisticated peepshow viewing box with minor modifications.

The dates associated with these types of Fantascopes are in line with the appearance of Shahr-e farang. However, It is impossible to conclude that they were the exact devices that transformed gradually into the device we know as Shahr-e farang. It is documented in this thesis that phantasmagoria devices were brought to Iran and presented to the king's court, but the exact type of these devices is still unknown and requires further research.

Apart from the facts regarding the type of devices that were available in Europe and could perhaps be displayed or be available to purchase at the time of Exposition Universelle in Paris, it is highly unlikely that Shahr-e farang as peepshow box to be of significant curiosity of Mozaffar ad-Din Shah as the versions of these devices were already available to the court of Qajar. Fath-Ali Shah Qajar, the great-great-grandfather of Mozaffar ad-Din Shah had already been entertained with magic lanterns as well as his son when he was the Qajar prince, residing in Shiraz. Major General Sir John Malcolm (1769-1833), the Scottish diplomat and East India Company administrator in his book *Sketches of Persia* (1861) describes how magic lantern, or phantasmagoria as he refers to it, was a successful entertainment during his second mission to Persia in 1808. John Malcolm explains that Persians were already familiar with electrical machines, as he used them for the purpose of entertaining in his first mission in 1799. Therefore, for the second mission he decides to purchase 'a large and excellent phantasmagoria, which was furnished with numerous glasses; on these were painted spectres, with shapes monstrous beyond what the poet's fancy ever bodied forth' (Malcolm, 1861, p. 236). He then explains that the device was first exhibited to the Qajar crown prince, Abbas Mirza (1789-1833) as the first

person of royal family and he expressed his 'wonder and delight at this extraordinary invention'. Then prince orders for it to be exhibited to his ladies and his mother and they were all in awe with its effects and delighted with wonders they had seen. Phantasmagoria left an impression on all who saw it, regardless of their age, wealth, or status. Malcolm attributes the success of Phantasmagoria to the talent of the operator, Mr. Sundt, an Anglo-Indian, who besides skillfully operating the device reflected the events throughout the day by making handmade, painted frames, with Persian figures to display the images as occasions required. He calls phantasmagoria an important diplomatic tool, as it could even draw 'dignified persons' to these entertainment events, as they could not resist their curiosity (ibid. p. 237). The Phantasmagoria device that John Malcolm exhibited in the court of the young prince Abbas Mirza in Shiraz produced the same excitement and amusement at the court of his father, Fath-Ali Shah Qajar in Soltaniyeh, the site of Shah's summer camp. In conclusion, he suggests that these or similar devices accompany future envoys to Persia, as they are deemed to be crucial to the success of the mission (ibid. p. 238).

In considering the origins of the Shahr-e farang device in Iran, it is noteworthy that the documented encounter with the magic lantern took place almost a hundred years prior to Mozaffar ad-Din Shah's visit to Paris. Considering the limited number of image-based entertainment spectacles available at the time and the popularity and success that the phantasmagoria device had achieved in the Persian court, it seems unlikely that knowledge of its existence would have been forgotten in the decades that followed. While the Shahr-e farang might not be directly related to the travels of the Mozaffar ad-Din Shah to France, as the origin story suggests, there could still be a psychological connection between the two. One might argue that the act of an ordinary local peeping into the Shahr-e farang's lens is not that different from the Shah of Persia's travel to Europe. One was looking at the images, visualizing a journey through landmarks and landscapes of the western cities while the operator was narrating familiar stories of familiar Iranian heroes and legends. While the other is physically travelling through the streets of European cities and simply looking at what he can see. When the Qajar

kings Naser al-din Shah and Mozaffar al-din Shah toured Europe, both gazed at these cityscapes, inventions, and objects as objects of curiosity and were not necessarily interested in the historical, political, and sociological events that shaped their existence. Similarly, they also did not consider Iran's financial circumstances and social and technological reality at the time.

Shahr-e farang in pictures

There are several photographic records of Shahr-e farang showing the device as an entertainment device in its intended environment, and outdoor space, but the images either lack a source or were taken by unknown photographers. Because of this, it is more difficult to locate this device in Iran's media history context, explore the device's historical origins, or determine any social attributes associated with it. Nevertheless, image of Shahr-e farang with a date or a bracket of years attached, and a record of their author is very rare. One of those is a photo (figure 24) by Antoin Sevruguin, an Armenian-Russian resident professional photographer in Tehran and one of the most prominent photographers of the Qajar era. By documenting everyday life, costumes, buildings, and landscapes of the time, his work significantly contributed to our visual understanding of the Qajar era of Iran. In one of the very few academic discourses in relation to Shahr-e farang as a device, Staci Scheiwiller in her essay Cartographic desires: Some reflections on the Shahr-e farang (peepshow) and modern Iran (2013) examines Sevruguin's photo of Shahr-e farang and the social and political climate of Qajar Iran.

Through analysing this image, she portrays Shahr-e farang as a tool for Iranian subjects to achieve their 'cartographical desire' by gazing at the images of the West and to aid or attain the goals of the Qajar court in reconsidering Iran's relationship with Europe.

Figure 24 - Shahr-e farang, c. 1880s-1930

In this image, we can only see the Shahr-e farangi, the operator and the top part of the device itself. The part of the Shahr-e farang that consists of ornaments, turrets, and towers, chimneys, and if needed, the entry point for solar lighting. Viewers, a man and two kids are blocking the legs and the main structure of the body from being visible. We also see a curtain that viewers are using to block out excessive ambient light, to view the images with better clarity and to be more immersed in the world that the operator is depicting. It is difficult to decipher the pictures wrapped around each turret, but with closer inspection, it can be noted

that the one on the right is showing a white building with three domes and it appears to be a magazine clip; however, the picture on the left looks like a castle. There are also two unidentifiable pictures in rectangular frames between the turrets. In this picture we see two men standing behind the device. It is highly probable that the older man is Shahr-e farangi, the storyteller and the one behind the device is the *bache morshed* or the apprentice who is responsible for cranking the roll of images.

Considering the Iran-West relationship during the Qajar period, economic and social interactions between the Qajars and Europeans, the superficial political stability in Iran in the early 20th century, and the interest of Qajar's court in image technology, which led to the development of cinema and photography in Iran, one might argue that this in return allowed devices like Shahr-e farang to resurface and gain popularity as a public and outdoor entertainment device for children. The invention of photography helped record the moment when these devices were still active in the entertainment scene of Tehran. However, this does not mean that they were completely unknown devices prior to the date of these images. There may be several reasons why the Shahr-e farang is associated with Mozaffar ad-Din Shah. One of them is arguably the fact that these devices were considered to be the early version of cinema, and since the appearance of cinema in Iran took place directly by and during the reign of Mozaffar ad-Din Shah, the appearance of the two is associated.

Descriptions of Shahr-e farang

There are not so many academic descriptions from Shahr-e farang, but there are few descriptions of this device in books and other sources. In Dehkhoda Dictionary (Dehkhoda, 1377), the largest lexical compilation of the Persian language, the description of Shahr-e farang is coming from another monumental work of literature, *Farhange loghate Amiyaneh* which translate to Vulgar Encyclopaedia (1962). This encyclopaedia written by one of the most prominent writers of Iran in the twentieth century, Mohammad-Ali Jamalzadeh (1892-1997) is

a comprehensive record of the Persian colloquial language. Jamalzadeh starts his description by noting that this device is specifically for children and then briefly describes the rolling mechanism of the device. 'It is a kind of children's entertainment and is such that several different images are pasted together in a scroll, and the two ends of it are tied to two sticks or two rollers, and the axis is rotated around them, so the images open on one axis and close on the other' (Jamalzadeh, 1962). Subsequently, he explains the form of the main body of the Shahr-e farang, including the use of lenses. 'These images are then placed in a box-like container, where a magnifying lens is mounted on the box's wall to make them appear large and clear, and the operator rotates the axis, and the images are displayed one by one as the children sit in front of the lens.' He expands on the operator's role, the show's length and how he uses his skills to entertain the children. 'As the images pass before the children's eyes, he (the operator) describes what fits the image that he has already repeated and memorized. Depending on the amount of money he receives, he presents all or part of those images to the viewer, and the description of each image begins with the phrase, '*this city is the city of Farang'*. After the end of this show, Shahr-e farangi hangs the curtain installed on the magnifying lens from inside the box (while he is showing the images, it is pushed aside from the magnifying glass) and prevents the image from being seen. He drops the curtain and ends the show with the phrase, '*Watch out for the black dog! (so he won't eat you)*.' He then comments on the current condition of these devices and indicates that this entertainment was very popular with children prior to the arrival of cinema and television. 'At a time when cinema and television were not popular in Iran, the Shahr-e farang market was booming. Children loved watching these moving images, which were accompanied by rhythmic and melodious descriptions by the machine operator. 'Shahr-e farang has no customers these days, except for remote villages, towns, and poor parts of Tehran, and day by day, its market is declining' (ibid.). Jamalzadeh concludes his description by mentioning the mobility of Shahr-e farang and comments on the use of batteries in some of the devices to attract children. However, he clarifies that this is not the main attraction of these shows and is second in importance. 'Shahr-e farangi carries his device on his shoulders or pulls it on the ground with wheels attached to its legs. Occasionally, it is decorated with different

colours and small coloured lamps that are lit by dry batteries. However, all these devices are installed to attract children's attention and have a secondary purpose' (ibid.).

Another writer and scholar of Tehran history, Jafar Shahri (1914-1999) mentions Shahr-e farang in his book (Shahri, 1369) on the social history of Tehran in the nineteen century in the chapter where he describes the appearance of cinema in Tehran. Shahri claims the Shahr-e farang in practice became the local version of cinema before it became a popular entertainment and place of leisure for the public. 'Until the 1300s(HS), there was no entertainment place called a cinema, and the cinemas were the same box of familiar Shahr-e farang, who showed pictures cut from foreign magazines and pasted back-to-back. These pictures were displayed behind three magnifying lenses in front of the device' (Shahri, 1369, p. 387). Further details of the size, parts, and function of Shahr-e farang are then provided in a footnote, portraying it as the predecessor of cinema. 'Shahr-e farang, which was, in practice, a version of the later cinemas, was a box measuring three *vajab*[3] wide and four or five vajab long, with the capacity of three spectators, which Shahr-e farangi carried around the alleys and placed in places where there were people and showed them for a fee of one *Shahi*[4]. It had three large magnifying glasses in front of it resting on a four-legged stand at half *zar*[5]. They turned on a small light inside and passed images in front of it by slowly rotating the roll handle, stopping at each image, and describing it'. Shahri calls Shahr-e farang the predecessor of the future cinema, giving us a glimpse of what was shown in Shahr-e farang. 'It was the father of the later cinemas, as in this lyrical definition of Shahr-e farangi: '*This is Shahr-e farang, watch carefully! It is colourful, watch carefully! This is the daughter of the King of Farang, Petros, the Armenian king, who rides a horse to the palace...*' (ibid.).

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[3] each *vajab* around 22.5 centimeter
[4] Shahi was the change of low value
[5] each *zar* is around 104 cm

Most of the other descriptions of Shahr-e farang are usually a version of what has been set out in these sources. With the photographic record of the Shahr-e farang and the descriptions of the device, it can be concluded that the Shahr-e farang which was operating in the late Qajar era was a version of the earlier peepshow boxes widespread throughout the world. However, the question arises with the vast record of other peepshow boxes throughout the history of this device, is there any similarity in the appearance of Shahr-e farang with any other peepshow box? Therefore, to learn more about the construction, form, materiality and function of these devices, this research went on the journey to find any remaining device in Iran which is available for a field examination. After months of research, during a field trip in May 2014 to Iran, the only official remainder of these devices was located in the archive of the Cinema Museum of Tehran. At the time of visit, this Shahr-e farang was not exhibited to the public; instead, a replica made for the movie *Hajji Washington* (1982) by Ali Hatami was on display for the public.
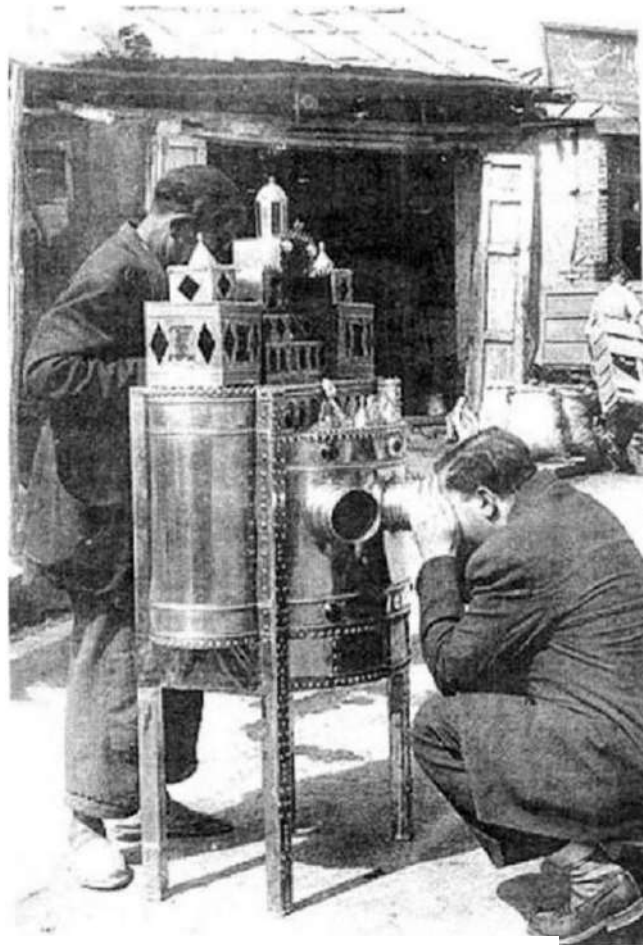
Figure 25 - Shahr-e farang, (date unknown)

Figure 26 - Replica of Shahr-e farang

SHAHR-E FARANG ATTRIBUTES

Shahr-e farang Form

By closely examining and documenting the archived Shahr-e farang in Tehran (figure 27), this thesis could also confirm that the device dimensions are similar to what has been noted in the descriptions above. Its dimensions were roughly measured at 100 cm wide by 180 cm tall, including the legs in 65 cm depth. The base of the turrets is 25 cm in diameter, and their total height is 60 cm. The main body of the device sits on a trapezoid volume with a narrow end at the front. Lenses were 15 cm in diameter and located at the height of 85 cm, allowing a child to gaze at the images comfortably. The overall size of the Shahr-e farang is small enough to be easily transportable yet large enough to gain the attention of potential viewers. On each side, there are two larger turrets, then two smaller ones inward of the large ones. Two rows of rectangular frames are in between, each housing four square frames. There is a colourful film inside the frames of the top row.

Most of the device's exterior is made of brass. Legs are made of wood but covered with a sheet of metal that is riveted to the legs. The metal sheet on the legs and the decorative square frames at the top of the device are painted a bright yellow, most likely made of tin. There are wooden parts inside the main body that are visible through the lenses. Legs are attached to the body with brackets and rivets. All the fasteners are rivets, and the rest of the main parts are soldered together. The main body's and turrets' finished edges are hemmed and soft to the touch. The central body metalwork has decorative lines at the top and bottom thirds that also add to the rigidity of the volume. There is also minor decorative linework on the rim of the turrets and the trapezoid base. The cylinder that houses the glass lenses protrudes from the main body, with the lens sitting 2 to 3 centimetres inward from the edge of the cylinder. There are three other penetrations in the front of the device: a large round one just above the centre lens with a red convex lens and two more minor penetrations above the other two lenses. At the top of the

device is a hatch measuring 20 cm by 27 cm and two other medium size round penetrations that are covered by a translucent coloured film.

Figure 27 - Shahr-e farang, Cinema Museum Archive, (Date Unknown)

Considering the historical information regarding the existing trades, manufacturing facilities, and the quality of the work on the device, it can be concluded that the device is a handmade product. Each Shahr-e farang identified throughout this research differs from the others. This indicates that these devices are not made in a mass production facility and are one of a kind.

Shahr-e farang Function

It is not possible to determine for sure whether the examined device in the Cinema Museum of Tehran was originally made to be used as a street entertainment device, a Shahr-e farang, or whether it was made to be used as a working image spectacle inside private residences.[6] Many unique features and design elements in Shahr-e farang set it apart from the other peepshow boxes on other continents. Considering Shahr-e farang's Iranian name is the first and most important step to understanding its unique shape. In the literal translation of the name, *a foreign city* or *a western city* refers to this device as *a city*. The question arises, what parts of the city are being reflected in this device?

With Shahr-e farang's geographical location, it would be easy to draw parallels between its chimneys or turrets with mosque minarets. Scheiwiller quotes the artist Jinoos Taghizadeh who describes Shahr-e farang's structure as 'like a mosque, complete with minarets and coloured glass' (2013, p. 35). According to the findings of this thesis, the chimneys at the sides of the Shahr-e farang do not represent the mosque's structure. It would be culturally unacceptable in a religious and conservative society for images to be showcased in a structure

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[6] The latest development in the examination of this device, when it was renovated in 2016, suggests that this specific device might not have been in use in the streets of Tehran in its original form. Khabaronline.ir (2016) reports on the renovation of this historical monument by Haj Hassan Mollabaghri, known as Mollahasan. He is one of the master craftsmen in the restoration of historical objects. According to Mollahasan, his first profession was to make samovars (a metal container traditionally used to heat and boil water, originated in Russia and was brought to Iran by Russians), which was a high-demand commodity, making it an important profession at that time. He notes he and some of the samovar makers were accepting orders to construct Shahr-e farangs for upper-class households. According to Mollahhassan, the shape and construction of the Shahr-e farang in the cinema museum indicates that it belonged to an upper-class family and was not used by a street vendor in Tehran. He estimates that the device dates back to the early 1920s.

designed to represent a mosque, considering the nature of the images that were shown in the Shahr-e farang, mostly images of western cities or curiosities.

As mosques were not the only structures with minarets this thesis is looking at one of the other prominent urban features of Tehran as the capital city of the Qajar dynasty in 1900; the Naseri gates of old Tehran. A series of gates in the perimeter wall around the city was the successor to the last gates of Tehran from Safavid time. These were the first point of interaction with the city when a traveller or visitor arrived in Tehran. They served not only economically and as a means of security for the city but also contributed to the beautification of the city. They represented Iran's heritage, symbolism, and artistry. While most of these gates were made of usual materials and decorated with the traditional geometrical patterns typical of the décor of both public and private structures of the period, some of them had tiles that featured a variety of pictures and illustrations. These images depicted traditional and modern scenes, with ancient heroes juxtaposed with life-sized figures of Qajar notables and soldiers. 'These images were partly traditional (ancient heroes), but mostly they showed modern images of life-sized figures
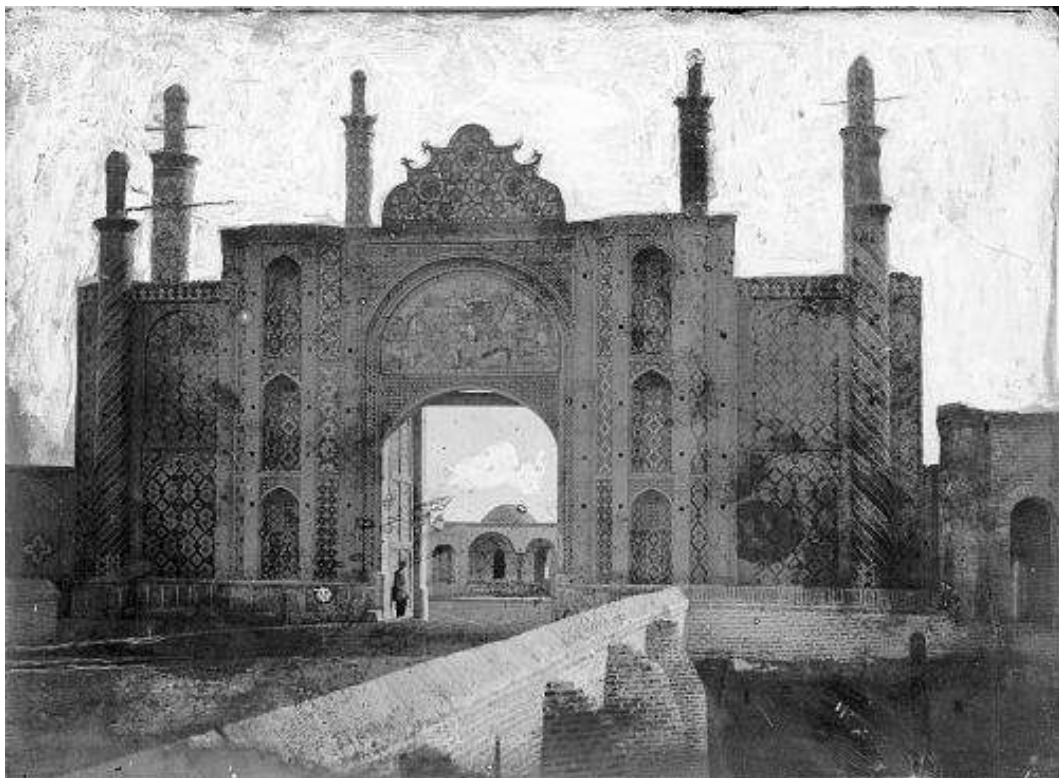
Figure 28 - Darvaza Dawlat (Dawlat City Gate). Tehran 19th century

of Qajar officials and soldiers as well as of modern arms' (Motaghedi, 2017, foreword). Constructed similarly to other gates of the time in Iran, the structure of gates in Tehran consisted of a more prominent arch entranceway and, in some instances, two smaller passages with doors leading to chambers for gatekeepers, two to four or more minarets and most of the time decorated with an ornamental semi-circular pediment above the main entrance.

Figure 29 - Shahr-e farang (Date Unknown)

This thesis would argue that the structure of the Shahr-e farang is by no means a representation of a mosque but is a miniature version of a city's gate, a gate to an unknown and far away city. An image of a city that the showman invites the viewer to look at and see what it has to offer. The resemblance of the Shahr-e farang to the city gates, specifically the Naseri gates of old Tehran, adds a layer of significance to this device. As prominent urban features, the gates were not only points of entry and interaction with the city but also representations of identity, history, and heritage. They represented a connection between the past and the present, showcasing traditional and modern scenes through their tile decorations. The juxtaposition of ancient heroes with life-sized figures of Qajar notables and soldiers reflected the changing

socio-political context of the time. The visual similarities between the Shahr-e farang and the city gates suggest that the device was not merely a form of entertainment but also a means through which city dwellers encountered and engaged with visual representations of their urban environment. It provided an opportunity to explore and experience the broader world beyond their immediate surroundings. The gaze of the viewer, directed through the lens of the Shahr-e farang, became a traveller's gaze, venturing into an unknown and distant city. This visual encounter with foreign images and cityscapes influenced the perception and imagination of 19th-century city dwellers in Tehran.

The turrets served two separate functions on the Shahr-e farang, decorative and practical. These components, which could incorporate candles and light, not only provide visual attraction but also serve as a place to hang other decorations. These were usually the highest elements of the device, making it a striking object that would attract the viewer's attention. They also concealed the handle of the roll of images inside the box. Based on the size and design of

Figure 30 - Shahr-e farangi rotating the roll of images

the Shahr-e farang, two methods were used to crank the roll of images. On the smaller devices, the cap on the turret was in the form of a conical shape that was attached from the inside to the roll of images. Shahr-e farangi was putting his hand directly on the cone, rotating and changing the images as he was going through the show. Figure 30 shows this type of cranking method. Another design was more appropriate for larger devices, as the turret's base was large enough to house the cranking mechanism's handle Figure 31.

Figure 31 - Cranking mechanism inside the turret

Both methods effectively disguise the cranking function to add to the magic of seeing the changing images. Moreover, they also kept light and elements away from an opening at the top of the device where the handle connected to the axis of the image reel.

Shahr-e farang User

More often than not, the narrative accompanying the images did not accurately describe them. Instead, it was a combination of places, stories and characters known to the Iranian viewer from folklore stories, heroes, and villains. The narrator had to reappropriate his verses

according to his audience. This practice was not limited to Shahr-e farang and Iran. Balzer notes, 'Truth or historical accuracy may not have been of overwhelming importance to many showmen' (Balzer, 1998, p. 26). In the Iranian context of Shahr-e farang, the showman might have been showing the Crystal Palace in England but referring to it as the palace of a king from Persian mythology to intrigue the viewers' imagination and make a mental context for his presentation. This approach becomes more important as the images shown in Shahr-e farang mainly were not related and were not following a storyline and were a collage of various unrelated images from around the world. It was the showman's skill to use his commentary and make the images relatable and exciting enough for the viewer to make them return to the show again and again. The inaccurate description of images could have been due to the showman's genuine ignorance of the actual place, character, or scene. However, the familiarization of the images significantly contributed to the success of Shahr-e farang. This, however, positions the device as an entertainment device for children rather than an educational tool.

The familiar structure of Shahr-e farang bridges the gap between the known and unknown for the viewer. On the one hand, seeing the familiar shape with towers, merlons and decorations resembling the city's gates makes this device familiar to the viewer. The device's bright brass or tin surface gleaming under Tehran's sunny sky is as attractive visually for children as Shahr-e farangi's harmonious call, inviting them to come to see the foreign city. Shahr-e farang's lenses are the gates to this new city, separating them from reality and allowing them to wander into the world of imagination. By holding the cylinder and blocking the ambient light, viewers physically engage with the device and participate in a multi-sensory experience, engaging mentally and physically with Shahr-e farang. The proximity of children in this multi-sensory encounter creates a collective experience within the personal boundaries of their gaze and imagination. This obscures the boundary between shared and individual experiences.

Figure 32 - Shahr-e farang, (c. 1958)

SHAHR-E FARANG; REPRESENTED

3D Model of Shahr-e farang

This thesis attempted to create a detail 3D representation of Shahr-e farang to facilitate further study and analysis of the device in the field of media history. The process of making the 3D model of the device consisted of 3 steps. The first step was to use the primary data collected from the existing device in the Cinema Museum of Tehran archive. This primary data consisted of photos, notes, measurements, and sketches of Shahr-e farang. These data at the beginning

only helped to reconstruct the outer shell and overall geometry of the device as touching, opening or looking deeper into the device was not possible and was limited by the organization.

Second, with the help of other descriptions, photographs and representations of the device, the device's functionality could be reconstructed. The data collected in chapter two allowed for adding specific functionality details that would have been impossible without other sources of data. This includes storing, displaying, and changing images' functionality. Additionally, it allows for a better understanding of the device's design, including its components, applications, and user interface. The third and last step was gradual and incremental updates and additions to the model. With more information gathered during the research, more details were added to the 3D model providing answers and clarity to the device's construction and functionality. For example, this includes the leg structure, turrets and underside details, which were incomplete in the first two steps.

This 3D representation refrained from making assumptions without collected data to reconstruct the inside of the device. It is assumed that more details can be added to the existing model by making these data available for collaboration. As it has been noted in this research, most Shahr-e farangs are visually different from each other and yet share certain functions with each other and other peepshow boxes. This thesis, with a 3D representation of the studied device, aims to find answers to the Iranian version of this device's construction and functionality. At the same time, it provides a structure to identify and explore other variations of these devices. Furthermore, a 3D model of Shahr-e farang can be used to enable the creation of virtual exhibitions and expand the accessibility and availability of information regarding this device.

This 3D representation of the Shahr-e farang is based on the primary data collection methods to conduct further studies on this device and its relation to media history. In the field of media history, physical artifacts such as Shahr-e farang play a significant role in

understanding technological development and its impact on society. Artifacts can be delicate and unavailable to many, making it difficult to examine them in detail. A 3D representation of Shahr-e farang can alleviate these limitations by providing a detailed representation of the device that can be analysed and studied without the need for the original device. It also allows replicating the context and testing multiple hypotheses about such devices. This data not only preserves the currently collected information but also provides a medium to further test hypotheses about the various unknown functions and aspects of such historical devices without risking any potential damage to the original device. Other researchers can use this 3D model to explore the Shahr-e farang's design, functionality, and components and compare it with similar devices. Theories about the device's features and functions can be tested. In doing so, we can gain valuable insight into media technology development and use it to fill in gaps in our understanding of Shahr-e farang.

A 3D representation of Shahr-e farang can make information about the device more accessible and available. Through virtual interactive exhibitions, the history of media devices can be made more accessible and appreciated by a broader audience. Additionally, the 3D model can be used in educational settings to provide students with a more immersive and interactive way to study this device as an essential and unforgettable part of the history of children's entertainment in Iran. Creating a 3D representation of the Shahr-e farang device is a practical step in studying and preserving media history. In addition to providing a detailed and accurate representation of the device, it allows the creation of virtual exhibitions and educational resources. Additionally, it preserves the information and makes it possible to add and modify it as updated information is accumulated.
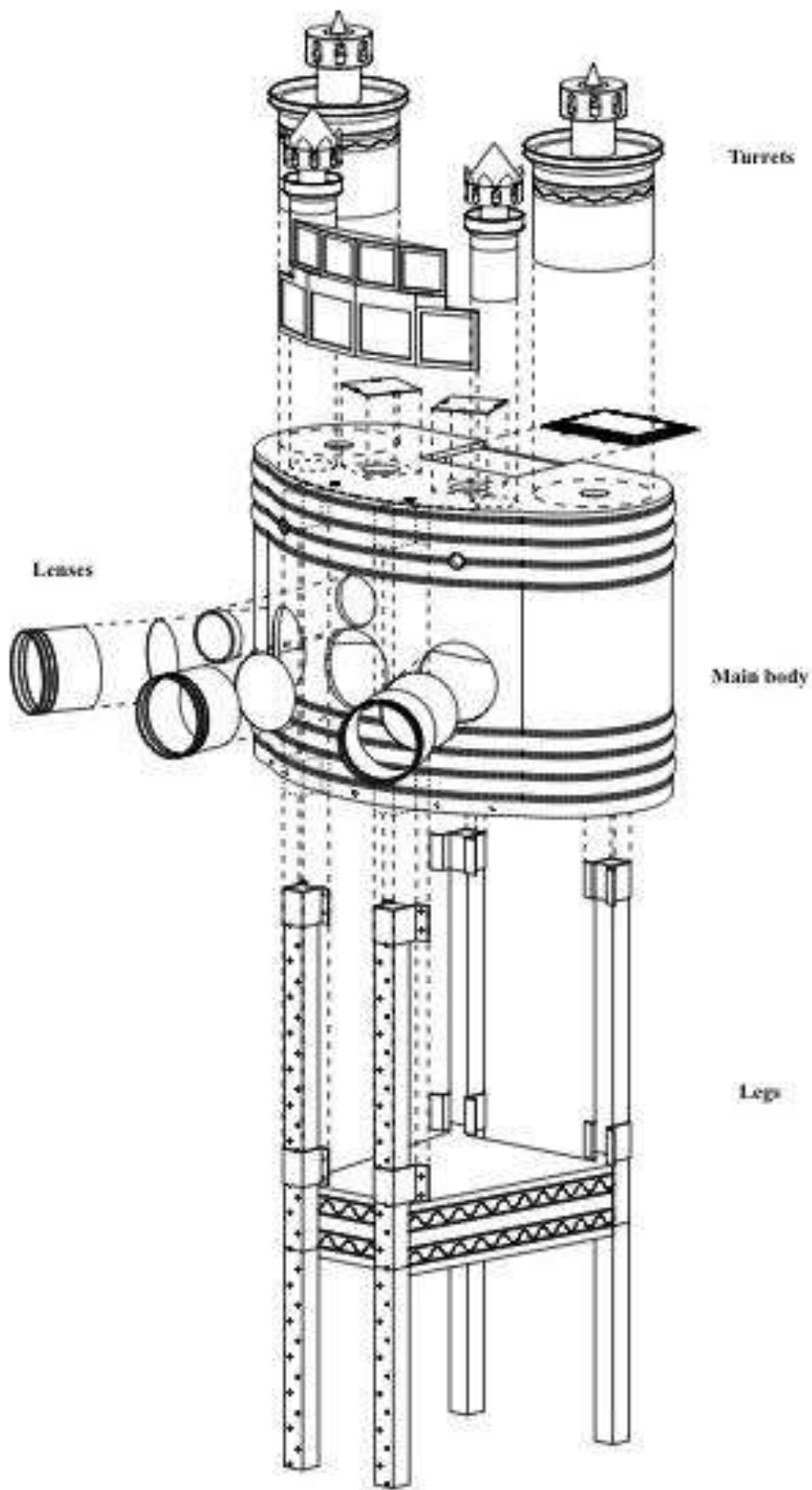
Figure 33 - 3D Representation of Shahr-e farang
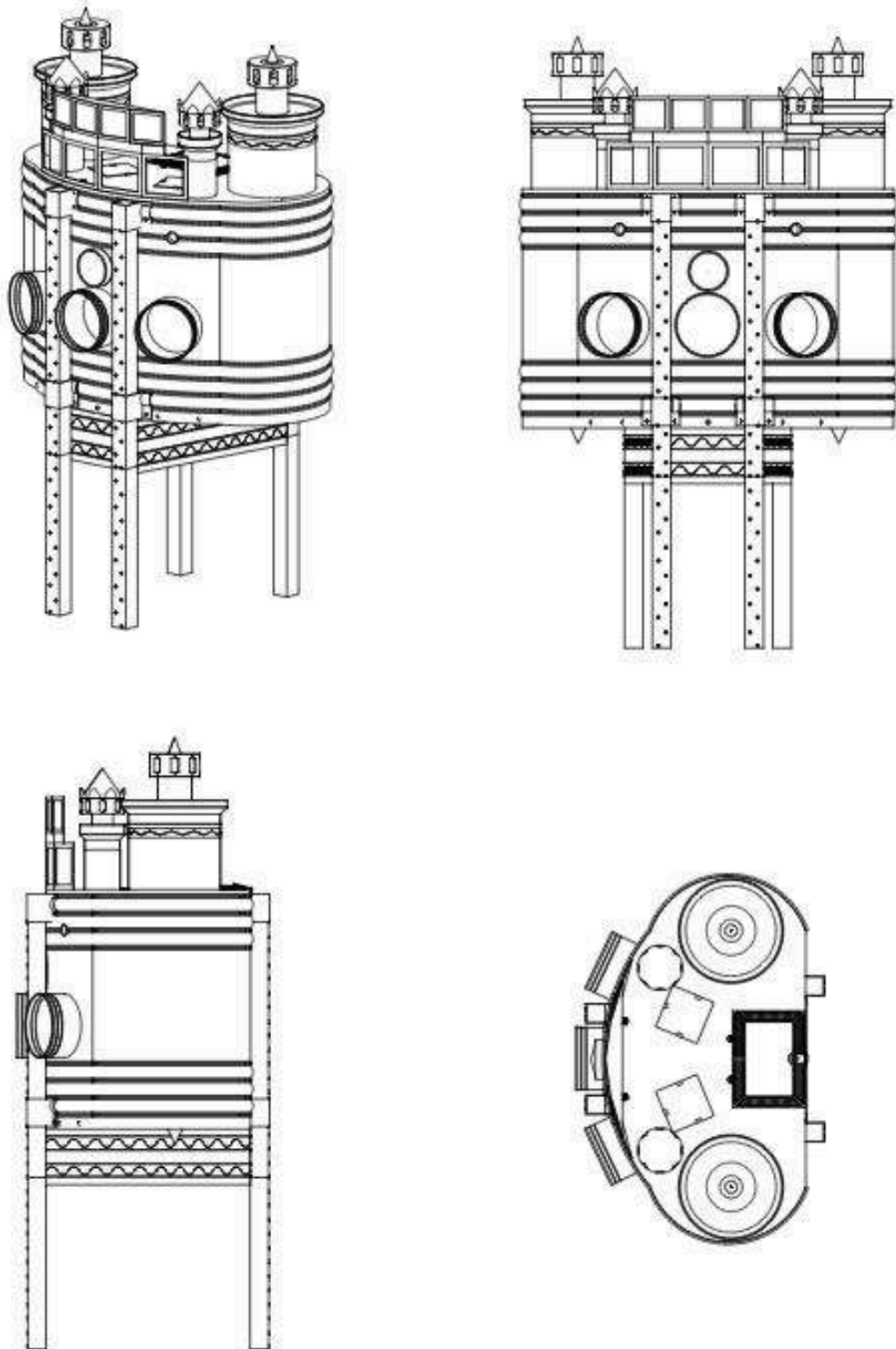
Figure 34 - 3D representation of Shahr-e farang

CONCLUSION

By understanding the notion of space in the contemporary city in chapter one and its relation with and within the mediated city in chapter two, and how urban environments are experienced, perceived, and represented, this thesis emphasizes the role of various media and technologies in shaping our understanding and engagement with urban spaces. The Shahr-e farang, as a device that presents images of foreign cities or curiosities, can be seen as a form of media that mediates the unknown city experience for its viewers, producing and reproducing spaces of imagination. This thesis argues in chapter one that space is not merely a physical entity but is constructed and shaped by social, cultural, and political forces. The Shahr-e farang embodies this notion by creating a spatial experience through its physical form, visual representations and functions. It constructs a miniature cityscape within its structure, inviting viewers to engage with and navigate through this imaginary space.

As a first step, this chapter summarizes the research findings and examines their implications. A particular focus is placed on identifying the problems and answering the research questions through research. Considering the main research hypotheses, the implications of the findings will be outlined. Secondly, the research contribution to the media history of visual spectacles in the Iranian context is presented. Thirdly, research limitations and methodological considerations are discussed in the study. A discussion of the applicability of the adopted methodological framework is then presented, along with suggestions for future research and future directions.

Findings of the Study

This thesis was initiated as an exploration of the oversaturation of the immediate surroundings by a multitude of visual stimuli, resulting in a sense of numbness in the contemporary urban dweller. Inevitably, this global phenomenon is the result of several factors,

including the built environment, the way this space is being interacted with, and at the core of it, the inhabitants of this space. The mediated city of Tehran in the early 20th century was no different as the Iranians were becoming more familiar with new technologies in the field of optics. Considering the notion of active participation and the appropriation of urban spaces by the mediated city dwellers, Shahr-e farang, as a peepshow box, offers a controlled and curated encounter with the foreign city within. The showman acts as a gatekeeper, granting access to the visual spectacle inside. This can be seen as a form of remote access to the city, where the viewer's gaze becomes the traveller, exploring the unknown world the device offers. Reviewing these technologies before the introduction of cinema in Tehran, a significant device known as Shahr-e farang emerged that was highly understudied, resulting in a substantial knowledge gap in Iran's media history. This study proposed a methodological framework to determine the role of this device in the history of entertainment media in Iran and utilized it in the context of media in Iran to assess the available information on Shahr-e farang.

Firstly, the concept of space as it relates to images was discussed, and how emerging technologies are changing our understanding of it. By analyzing the Shahr-e farang within the framework of the mediated city and Lefebvre's concepts of space, we can gain insights into the complex interplay between technology, representation, and urban experience. It prompts us to question the dynamics of power, agency, and meaning making in the construction and consumption of urban spaces. Additionally, it highlights the role of visual media in shaping our perceptions of the city. It invites us to reflect on the ways in which we engage with and interpret urban environments. In the Iranian context of Shahr-e farang, the introduction of photography and cinema marked a moment in Iran's entertainment history in relation to the West. The East and West relationship can be analysed under the notions of Orientalism and Occidentalism, but these ideas are not in the scope of this research.

Detailed analysis of global media devices and identification of their chronological order and their context of use allowed Shahr-e farang to be categorized within a small group of

media devices, appearing to operate in an outdoor, urban environment. Among these devices, peepshows, moving panoramas and magic lanterns were proposed to relate to Shahr-e farang directly. Further study revealed that these devices underwent continuous and gradual transformations, and a technical link existed between them. Furthermore, by reviewing other storytelling techniques and traditions in Iran, the historical context of Shahr-e farang as a tool for storytelling has been established. Based on this analysis, Shahr-e farang could be identified as an Iranian version of the globally known entertainment device, the peepshow box. By cross-examining these media devices, the study identified missing information regarding some of the functions of Shahr-e farang, namely the mechanism of changing images.

Providing a timeline of global peepshow boxes, this thesis identifies the Shahr-e farang's position within that context, allowing for the categorization of different visual and practical characteristics such as place of origin, number of lenses, the cranking method, and the type of stand.

In a study of two leading theories regarding the origins of Shahr-e farang, both have major limitations, and neither of the current theories can successfully describe how this device emerged in Iran. Therefore, the thesis proposes a third theory about Shahr-e farang's appearance in Iran. After careful examination of western and eastern versions of peepshow boxes worldwide, this research argues that Shahr-e farang was neither brought to Iran in an individual event nor was it the result of the fusion of moving panorama and kinetoscope. Likely, Shahr-e farang was already used by travelling showmen and city vendors and informally introduced to the public but re-emerged as an entertainment device in its current form to satisfy the sense of curiosity of children and adults alike. It was not a planned development in the entertainment industry but rather the natural evolution of previous visual devices re-appropriated for Iranian culture. However, considering the cultural context of storytelling in Iran and with careful investigation of other visual devices, their time of appearance, and their geographical proximity, it is possible to propose this new perspective on the emergence of Shahr-e farang.

Overall, this research successfully emphasized the importance of incorporating available data on devices from other parts of the world to establish a framework and identify missing information when primary sources on the subject are limited or nonexistent. To achieve this, however, an extensive range of data must be collected and understood along with the context in which each data was collected, and it is crucial to refrain from drawing conclusions from superficial observations.

Significance of the Study

This research is the first to attempt to combine theoretical analysis of space and the empirical study of Shahr-e farang positioning the device in the broader context of Iranian pre-cinema media history. Thus, the proposed methodological framework contributes to the field of media archaeology in Iran and fills a gap in knowledge in some understudied parts. Furthermore, the research aimed to shed light on the inadequate definitions of Shahr-e farang, which is considered a minor incident in Iran's media and entertainment history. As a result of the lack of literature and theoretical sources on the subject, previous attempts to identify and position Shahr-e farang on the map of spectacles in Iran were found inconclusive. This research proposed an alternative method by establishing a framework that can be explicitly used in the Iranian context.

The adopted method offers an innovative way of conducting empirical analysis for researchers in the field of urban studies, architecture, media archaeology and social sciences. It combines the methods, tools, and language used most commonly in these fields. It is of the utmost importance to explore new methods now that new fields of study emphasize the intricate and complex connection between them, which is increasingly evident in contemporary cities.

Methodological Considerations and Research Limitations

The research's limitations mainly lie in the lack of primary information on the Shahr-e farang. To address this difficulty, this thesis first identified, collected, and analysed any primary sources related to Shahr-e farang. In this task, some sources might not seem to be relevant to the subject in the first place, but by further investigation, they became an integral source of information on the subject. However, as most of these documents were produced centuries ago, there was significant difficulty in acquiring and studying these sources due to their quality and language style.

The wide range of disciplines relevant to Shahr-e farang has limited the scope of this study, and only spatial attributes of this device were analysed, considering it a precursor of modern-day entertainment practices such as cinema. However, the research method was designed to be implemented in other disciplines or regarding other devices.

In the data collected through the chapter, *Peepshow boxes in timeline* reflected in Appendix B, the limitation lies in the sample size of the data. Although a larger sample size would render more accurate conclusions, the current data represents a wide range of devices and can be used as a sample. Another limitation was the number of attributes that could be analysed by a comparative study of the images. Observed characteristics were limited to 8 items, including year, location, material, number of lenses, type of support, method of operation, gender, and number of operators and users. The number of lenses, type of support and the operation of peepshow boxes have been analysed and represented graphically (figures 18-20).

Further Research

This research utilized available materials regarding the representations of worldwide peepshow boxes and produced a method to document and analyse this data. Future research can identify other types of peepshow boxes to expand and develop this data, as one of the challenging aspects of this research was identifying the names assigned to this device in different parts of the world.

It is possible to expand and evolve the sample size in this study by including more peepshow devices and analysing other characteristics of these devices. To a certain level, this research incorporates unconventional sources as the primary data source. This can be extended further and include oral records of these devices. As a result, this is a source of data that may not be available for very long since the original viewers of these devices may not be available to share their first-hand experiences.

Shahr-e farang has been analysed as an entertainment device, it is possible origins and relationship to other devices have been established, and the mental and physical attributes of the device as related to its use have been identified. Future research can investigate other aspects of this device, such as its political, economic, and cultural attributes, its relationship to gender in a historical context, and its characteristics in relation to Iranian identity.

APPENDIX A

Persian dynasties/kingdoms before Islamic Republic of Iran

DYNASTY / KINGDOM	PERIOD
Median	728-550 BCE
Achaemenian	559-330 BCE
Hellenistic period of Alexander and the Seleucids[7]	330-247 BCE
Parthian period (Arsacid dynasty)[8]	247 BCE-224 CE
Sasanian	224-651
Arab invasion and the advent of Islam	640-829
Iranian intermezzo[9]	821-1055
Seljuqs	1038-1157
Mongols[10]	1220-1335
Timurids and Ottoman Turks	1380-1501
Safavid	1502-1736
Afghan interlude	1723-36
Nader Shah	1736-47
Zand	1750-79
Qajars	1794-1925
Pahlavi	1925-79

Source: *Ancient Iran | History, Map, Cities, Religion, Art, Language, & Facts*. (2022, July 29). Encyclopaedia

Britannica. https://www.britannica.com/place/ancient-Iran/Persian-dynasties. Accessed on: 30 January 2023

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[7] Dates from the death of Darius III, the last Achaemenian king, and the invasion of Alexander the Great.
[8] Dates from the year in which the Parnian chief Arsaces first battled the Seleucids.
[9] Includes the Tahirid, Samanid, Ghaznavid, and Buyid dynasties.
[10] Mainly the Il-Khanid dynasty (1256–1353).

Qajar dynasty

QAJAR RULER	REIGNED
Āghā Moḥammad Khān	1779-97
Fatḥ ʿAlī Shāh	1797-1834
Mohammad Shah Qajar	1834-48
Naser al-Din Shah Qajar	1848-96
Mozaffar ad-Din Shah Qajar	1896-1907
Mohammad Ali Shah Qajar	1907-09
Ahmad Shah Qajar	1909-25

Source: Britannica, T. Editors of Encyclopaedia (2022, December 14). Qājār dynasty. Encyclopaedia Britannica. *https://www.britannica.com/topic/Qajar-dynasty*. *Accessed on 30 January 2023*

APPENDIX B

Image representation of peepshow devices in 18th, 19th, 20th century

FIGURE	PICTURE	YEAR	LOCATION	MATERIAL	LENSES	SUPPORT	OPERATION	OPERATOR	USER
B. 1		1910	Egypt	Unknown	3	Cross	Unknown	1 / M	Children and Adults
B. 2		1830	Unknown	Wood	1	Cross Stand	Hand	1 / M	Children
B. 3		1874	Unknown	Wood	2	Stand	String	1 / M	Children and Adults
B. 4		1839	England	Unknown	4	Cross	String	1 / M	Children
B. 5		1740	Unknown	Wood	2	Cross	String	1 / M	Children
B. 6		1745	Italy	Wood	2	Stand	String	1 / M	Children and Adults
B. 7		1720	Netherlands	Wood	1	Cross	Hand	1 / W	Children and Adults
B. 8		1733	England	Wood	2	Straight	Unknown	User	Children and Adults?
B. 9		1740	Italy	Unknown	2	Unknown	Unknown	1 / M	Children
B. 10		1750	Germany	Wood	Unknown	Cross	String	1 / M	Children and Adults

FIGURE	PICTURE	YEAR	LOCATION	MATERIAL	LENSES	SUPPORT	OPERATION	OPERATOR	USER
B. 11		1750	England	Unknown	Unknown	Cross	Unknown	1 / M	Children
B. 12		1750	France	Unknown	Unknown	Cross	Crank	1 / M	Children and Adults
B. 13		1750	France	Unknown	3	Unknown	Unknown	1 / M	Children and Adults?
B. 14		1850	France	Unknown	1	Slanted	String	1 / M	Children and Adults
B. 15		1780	England	Wood	4	Straight	String	1 / M	Children and Adults
B. 16		1760	England	Wood	4	Cross	String	1 / M	Children
B. 17		1780	Unknown	Unknown	2	Cross	Unknown	1 / M	Adults
B. 18		1770	France	Unknown	Unknown	None	Unknown	1 / M	Children
B. 19		1796	Netherlands	Unknown	Unknown	Cross Stand	Unknown	1 / M	Adults
B. 20		1789	England	Unknown	1	Unknown	Unknown	1 / M	Children
B. 21		1790	Unknown	Wood	3	Straight	Unknown	1 / M	Children
B. 22		1830	Netherland	Unknown	1	Cross	Unknown	1 / M	Children

FIGURE	PICTURE	YEAR	LOCATION	MATERIAL	LENSES	SUPPORT	OPERATION	OPERATOR	USER
B. 23		1797	England	Wood and metal	1	Cross	String	1 / M	Adults
B. 24		1832	England	Unknown	3	Straight	Unknown	1 / M	Adults
B. 25		1840	England	Unknown	2	Cross	Unknown	1 / M	Adults
B. 26		1835	England	Unknown	1	Cross	Unknown	1 / M	Adults
B. 27		1920	France	Unknown	1	Cross	Unknown	1 / M	Adults
B. 28		1799	East Asia	Wood	4	Cross Stand	String	1 / M	Children
B. 29		1805	England	Wood and metal	2	Cross	String	1 / M	Children and Adults
B. 30		1804	England	Wood and metal	3	Cross Stand	Unknown	1 / M	Unknown
B. 31		1806	England	Unknown	3	Cross	Unknown	1 / M	Children and Adults
B. 32		1800	England	Unknown	2	Slanted	String	1 / M	Children and Adults
B. 33		1820	England	Wood and metal	4	Cross	String	1 / M	Children and Adults
B. 34		1809	Italy	Wood	4	Cross Stand	String	1 / M	Children and Adults

112

FIGURE	PICTURE	YEAR	LOCATION	MATERIAL	LENSES	SUPPORT	OPERATION	OPERATOR	USER
B. 35		1840	Unknown	Unknown	6	Cross	String	1 / M	Children and Adults
B. 36		1830	Unknown	Wood	6	Unknown	String	1 / M	Children and Adults
B. 37		1830	Unknown	Wood	Unknown	Unknown	String	1 / M	Children
B. 38		1820	France	Wood	6	Wheels	String	1 / M	Children and Adults
B. 39		1820	Unknown	Wood and metal	1	Cross	String	1 / M	Children
B. 40		1820	Unknown	Wood	2	Cross	String	1 / M	Unknown
B. 41		1840	France	Unknown	1	Unknown	String	1 / M	Adults
B. 42		1840	France	Wood	6	None	String	2 / M & F	Children and Adults?
B. 43		1848	Unknown	Wood and metal	4	Cross	String	1 / M	Children
B. 44		1851	Unknown	Wood	2	Cross	String	1 / M	Children
B. 45		1839	France	Unknown	Unknown	Stand	String	1 / M	Adults
B. 46		1840	France	Wood	Unknown	Straight	Unknown	1 / M	Children and Adults

FIGURE	PICTURE	YEAR	LOCATION	MATERIAL	LENSES	SUPPORT	OPERATION	OPERATOR	USER
B. 47		1846	Unknown	Unknown	3	slanted	String	1 / M	Unknown
B. 48		1840	France	Wood and metal	3	None	String	1 / M	Adults
B. 49		1840	Netherland	Unknown	4	Cross	Unknown	1 / M	Adults
B. 50		1840	France	Unknown	4	Wheels	String	1 / M	Children and Adults
B. 51		1840	France	Unknown	6	Wheels	Unknown	1 / M	Children and Adults
B. 52		1850	England	Wood	3	Cross	String	1 / M	Children
B. 53		1840	Unknown	Wood	4	Cross Stand	Unknown	1 / M	Children
B. 54		1843	England	Wood	2	Cross	String	2 / M	Adults
B. 55		1830	England	Unknown	1	Straight	String	1 / M	Adults
B. 56		1847	Germany	Wood	Unknown	Cross Stand	Unknown	1 / M	Children and Adults
B. 57		1842	England	Unknown	4	Cross	String	1 / M	Children
B. 58		1874	Unknown	Wood	1	Straight	Unknown	1 / M	Children

FIGURE	PICTURE	YEAR	LOCATION	MATERIAL	LENSES	SUPPORT	OPERATION	OPERATOR	USER
B. 59		1845	United States	Wood	3	Cross	Unknown	1 / M	Children
B. 60		1850	East Asia	Wood	2	Straight	Unknown	1 / F	Children
B. 61		1850	East Asia	Wood and paper	4	Cross	String	1 / M	Children
B. 62		1880	East Asia	Wood and paper	3	Cross Stand	String	1 / M	Children
B. 63		1862	France	Wood	5	None	String	2 / M & F	Children and Adults
B. 64		1860	East Asia	Wood	2	None	String	1 / M	Children
B. 65		1870	Unknown	Wood	1	None	String	Unknown	Adults
B. 66		1890	Unknown	Wood	Unknown	Cross	Unknown	1 / M	Adults
B. 67		1879	Unknown	Wood	3	Wheels	Unknown	1 / M	Children
B. 68		1880	England	Wood	1	Cross	Unknown	1 / M	Children
B. 69		1880	Unknown	Wood	2	Cross	Unknown	Unknown	Unknown
B. 70		1872	France	Wood and metal	2	Cross	Unknown	1 / M	Children and Adults

FIGURE	PICTURE	YEAR	LOCATION	MATERIAL	LENSES	SUPPORT	OPERATION	OPERATOR	USER
B. 71		1890	United States	Wood	6	Unknown	Unknown	Unknown	Children
B. 72		1890	United States	Wood	6	Wheels	String	1 / M	Unknown
B. 73		1894	Unknown	Wood	6	Straight	String	1 / M	Children and Adults
B. 74		1900	England	Wood	3	Cross	String	1 / M	Children
B. 75		1907	England	Wood	1	Cross	String	1 / M	Children
B. 76		1900	Unknown	Unknown	2	Cross	Unknown	1 / M	Unknown
B. 77		1900	Unknown	Unknown	3	Straight	Unknown	Unknown	Adults
B. 78		Unknown	Egypt	Wood	4	Cross	Unknown	1 / M	Unknown
B. 79		Unknown	Egypt	Metal	5	Unknown	Unknown	1 / M	Children
B. 80		Unknown	France	Unknown	Unknown	Unknown	Unknown	1 / M	Unknown
B. 81		Unknown	Palestine	Unknown	3	Cross	Unknown	Unknown	Unknown
B. 82		Unknown	England	Unknown	3	None	Unknown	1 / M	Children

FIGURE	PICTURE	YEAR	LOCATION	MATERIAL	LENSES	SUPPORT	OPERATION	OPERATOR	USER
B. 83		Unknown	Egypt	Unknown	2	None	Unknown	1 / M	Adults
B. 84		Unknown	Unknown	Unknown	Unknown	Cross	Crank	1 / M	Children
B. 85		Unknown	England	Wood	2	Cross	Unknown	Unknown	Unknown

APPENDIX C

Moment 2:45 - A Video Installation

Moment 2:45 is an installation produced and exhibited at FACT (Foundation for Art and Creative Technology) as a result of a one-day digital film workshop on the 1st of April 2015 at the Centre for Architecture and the Visual Arts (CAVA) with students from the University of Liverpool. The installation explores everyday life urban narratives in Liverpool in relation to the theme "Libidinal Circuits," which is further studied at a conference of the same name at the School of the Arts. Workshop participants were asked to search for and record one-minute-long urban narratives with their mobile phones at self-selected locations in Liverpool. This resulted in over 20 simultaneously recorded video incidences, showing over 20 different vantage points, portraying the city at a particular moment in time (figure 35).
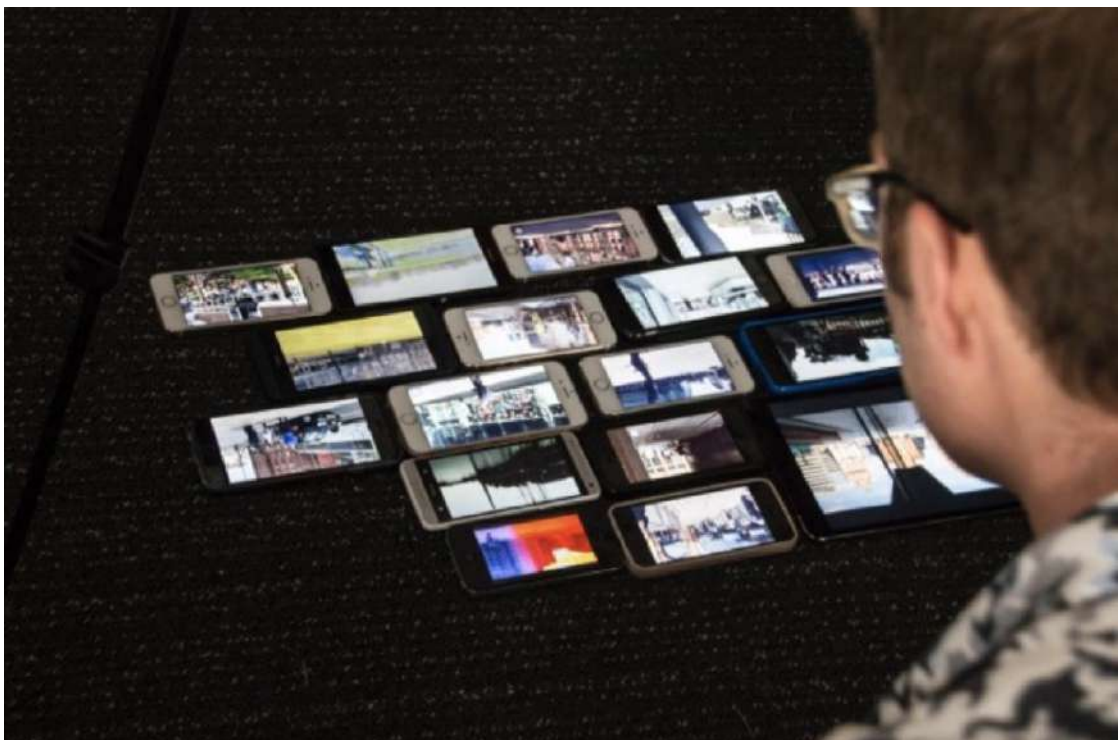

Figure 35 - City of Liverpool through multiple vantage points

These films are now assembled into a single video installation in which gallery visitors can zoom into each of the movies and explore these micro-urban narratives at any chosen order.

The idea of using mobile phones as the mean to record and display these narratives responds to today's predominant digital and mobile culture with its preoccupation with image-dominated and digitally mediated modes of urban consumption. The workshop's outcome was exhibited in public at FACT (Foundation for Art and Creative Technology) in July 2015 in the form of a handmade device, an interactive installation (figure 36). Standing in contrast to our digital preoccupation with media consumption, the physical installation emphasizes the need for an analogue and haptic experience of image and space. The device consists of three main parts:

- a screen that plays the looping videos

- a mechanical moving aperture that enables the viewer to navigate through different parts of the screen

- a magnifying screen that optically magnifies the image on the screen

The installation "Moment 2:45" explores a multitude of urban narratives in the city of Liverpool through the lens of mobile phones. It uses mobile phones to record and display these narratives, acknowledging the dominance of digital and mobile culture in our consumption of urban images. The installation aims to provide an analogue and haptic experience of image and space, contrasting digital preoccupation with media consumption. In chapter one, this thesis explored the idea that space is not merely a physical entity but is constructed and shaped by social, cultural, and political forces. Similarly, "Moment 2:45" highlights the multi-layered nature of urban narratives and how various factors influence them. The installation acknowledges the subjective and constructed nature of urban experiences by allowing gallery visitors to zoom into each recorded video and explore the micro-urban narratives in any chosen order. As chapter two of the thesis emphasizes the role of media and technologies in shaping our understanding of urban spaces, "Moment 2:45" reflects the concept of mediated city experiences. Just as the Shahr-e farang, a device that presented images of foreign cities, mediated the unknown city experience for viewers, the installation in Liverpool acts as a

mediator of ambiguous urban narratives. It constructs a miniature cityscape within its structure, inviting visitors to engage with and explore the micro-urban narratives captured by the participants. Moreover, this thesis discusses the historical context and evolution of media devices, such as peepshows and magic lanterns, in shaping visual spectacles. This aligns with the utilization of mobile phones in "Moment 2:45" as contemporary media devices to capture and present urban narratives recognizing the transformative power of media and technology in shaping our perceptions and engagements with urban spaces. In summary, through the installation "Moment 2:45," this experiment, instead of replicating Shahr-e farang, borrows the fundamental ideas behind the device. It resonates with the ideas presented in the thesis by exploring mediated urban narratives, acknowledging the constructed nature of space, and highlighting the role of media and technology in shaping our understanding and experiences of urban environments.
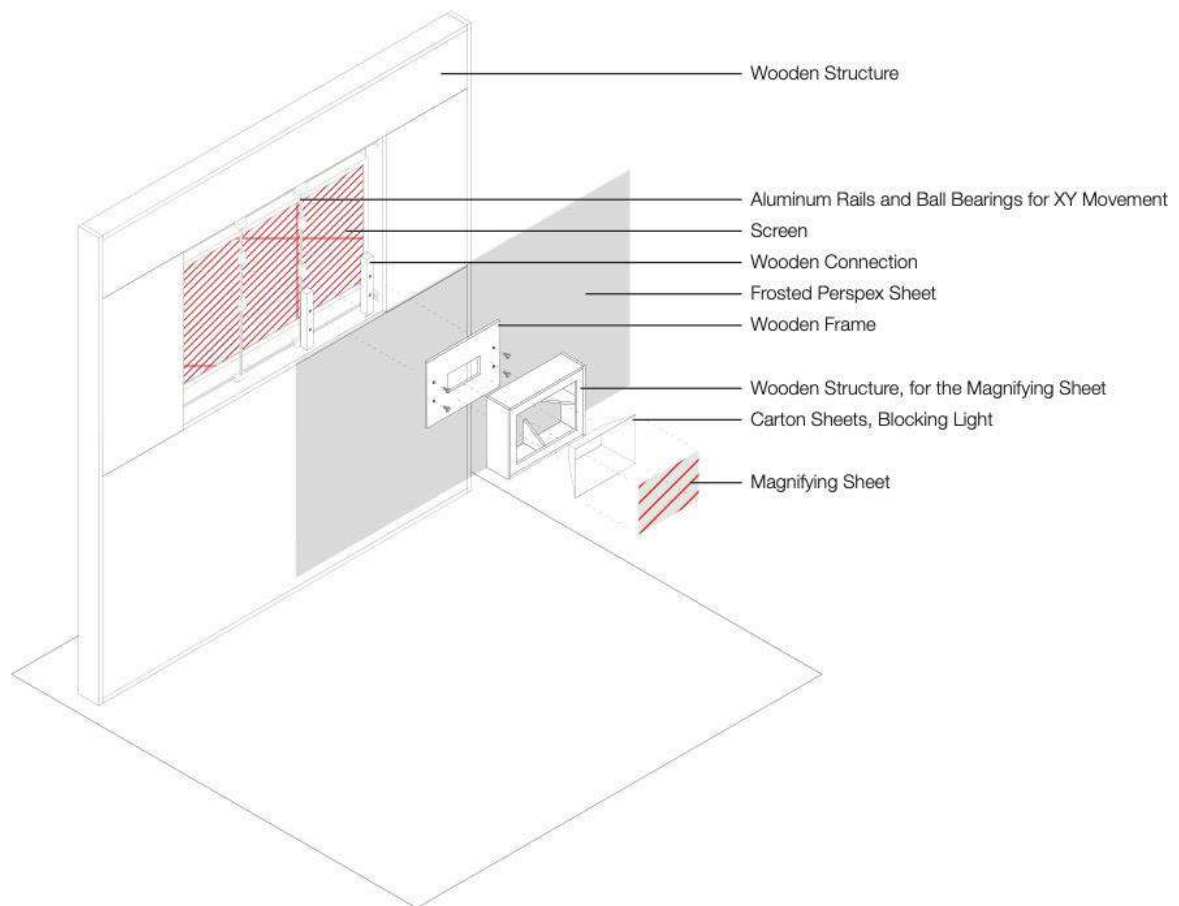

Figure 36 - Moment 2:45 Device diagram

IMAGE REFERENCES

Figure 1: Shahr-e farangi, Mahmood Sanjari, 1992 (photo by author)

Figure 2: Maydan-i Tupkhana (Square of Canons). Tehran 19th century (Smithsonian, https://www.si.edu/object/archives/components/sova-fsa-a-04-ref10370)

Figure 3: The pardeh khani screen. (Photo: School of Fine Arts, http//: eghbal.ershad-as.ir/?MID=21&Type=News&TypeID=1id+11)

Figure 4: Street scape. Tehran 19th century (Smithsonian, https://www.si.edu/object/archives/components/sova-fsa-a-04-ref10132)

Figure 5: Dar al-funun from the top of the Maydan-i Tupkhana, 19th century (The Nelson Collection of Qajar Photography, https://www.thenelsoncollection.co.uk/artworks/categories/5/9722/)

Figure 6: Ta'ziyeh in late Qajar era (https://www.iranchamber.com/cinema/articles/taziyeh_drag_kings_queens.php)

Figure 7: Female spectators at Tekyeh Dowlat in Tehran, late 19th century (https://en.wikipedia.org/wiki/File:Female_Spectators_at_Tekyeh_Dowlat.jpg)

Figure 8: Timeline of Media Devices (illustration by author)

Figure 9: Operator of the peepshow box (Balzer, R. (1998). *Peepshows: A Visual History* (annotated edition). Harry N Abrams)

Figure 10: Representation of the deeper and higher peepshow box (Balzer, R. (1998). *Peepshows: A Visual History* (annotated edition). Harry N Abrams)

Figure 11: Magic Lantern
https://www.cinematheque.fr/fr/catalogues/appareils/collection/lanterne-magiqueap-19-3323.html

Figure 12: Famous twin panorama rotundas in Paris (Huhtamo, E. (2013). *Illusions in Motion: Media Archaeology of the Moving Panorama and Related Spectacles*. Amsterdam University Press)

Figure 13: The earliest known illustration of moving panorama mechanism. (Huhtamo, E. (2013). *Illusions in Motion: Media Archaeology of the Moving Panorama and Related Spectacles*. Amsterdam University Press)

Figure 14: Moment 2:45 Installation (illustration by author)

Figure 15: Standing Portrait of Nasir Al-Din Shah.
Antoin Sevruguin (d. 1933). Glass plate negative taken before 1896. Myron Bement Smith Collection of Sevruguin Photographs. Freer Gallery of Art and Arthur M. Sackler Gallery   Archives. Smithsonian Institution, Washington D.C. (FSA A.4 2.12.GN.51.08).

Figure 16: Two Persian Women, Late 19th/Early 20th Century (The Nelson Collection of Qajar Photography,
https://www.thenelsoncollection.co.uk/artists/26-antoin-sevruguin/works/10127/#)

Figure 17: Shahr-e farang, Displayed at Golestan Palace (date unknown)

Figure 18 – 20: Number of lenses on the peepshow device, Support of the peepshow device, Operation of the peepshow box (illustrations by author)

Figure 21: Magic Lantern Peep Show. Signed and dated *J. Thomson/F.R.G.S./1877*. Oil on canvas. 51 x 61 cm (https://commons.wikimedia.org/wiki/File:John_Thomson_Magic_Lantern_Peep_Show_187 7.jpg)

Figure 22: Robertson Fantascope, (1853) Photo copyright: Dabrowski Stéphane (https://www.cinematheque.fr/fr/catalogues/appareils/collection/lanterne-de-projection-doublecnc-ap-15-1215.html)

Figure 23: Phantasmagoria Magic Lantern, (c. 1850) (https://www.girona.cat/shared/admin/docs/d/o/dossier_premsa_llanterna_fantasmagoria_insti tut.pdf)

Figure 24: Shahr-e farang, circa 1880s-1930 (Smithsonian, https://www.si.edu/object/archives/components/sova-fsa-a-04-ref9817)

Figure 25: Shahr-e farang, (date unknown)

Figure 26: Replica of Shahr-e farang (photo by author)

Figure 27: Shahr-e farang, Cinema Museum Archive, (date unknown)

Figure 28: Darvaza Dawlat (Dawlat City Gate) in Tehran (Smithsonian, https://www.si.edu/object/archives/components/sova-fsa-a-04-ref10146)

Figure 29: Shahr-e farang (Date Unknown)

Figure 30: Shahr-e farangi rotating the roll of images (Smithsonian, https://www.si.edu/object/archives/components/sova-fsa-a-04-ref9817)

Figure 31: Cranking mechanism's handle in turret (unknown source)

Figure 32: Shahr-e farang, (c. 1958)

Figure 33 & 34: 3D Representation of Shahr-e farang (by Author)

Figure 35: City of Liverpool through multiple vantage points (photo by author)

Figure 36: Moment 2:45 Device diagram (Illustration by author)

Figure B.1 to B.77: Balzer, R. (1998). *Peepshows: A Visual History* (annotated edition). Harry N Abrams.

Figure B. 78, B.80, B.82, B.84: bdcmuseum.org.uk

Figure B.79, B.85: Unknown

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