

Original Research Article

Strategic View Management Framework of Sacred Cities

Case Study :City of Qom*

Saeid Yadollahi**

Master of Urban Design, Shahid Beheshti University, Tehran, Iran.

Ali Daneshvari

Faculty Member of Urbanism Department, University of Bojnord, Bojnord, Iran.

Received: 16/08/2021

Accepted: 14/01/2022

Available online: 22/12/2022

Abstract | Visual obstruction of views that make it possible to see the shrine of the Imams (PBUH), the city's strategically important landmark, results in the destruction of "Strategic Views." Moreover, it causes a lack of identity in "Sacred Cities," and leads to a loss of sense of belonging, safety, delight, peace, memorability, and other qualities obtained from the glorious display of the shrine building in different layers of the city. However, precise measurements can protect and enhance the value of these national and transnational treasures as cultural-historical heritage. This research is descriptive-analytical. In data collection, the bibliographic method and survey were used. In analysis, techniques of geometric definition for protection of selected views, visual management plans, height analysis of profiles in GIS, and qualitative visual assessment were used. Accordingly, by compiling the strategic view management framework of sacred cities, a document was presented that can be used in a practical process to organize the sacred city's visual discipline on a large, medium, and small scale. This creates a visual connection between the city's public spaces and the shrine. Focusing on this process in the city of Qom, where strategic views are under threat, has led to the identification of views, the provision of visual management guidance, and the calculation of height criteria for sensitive areas to high-rise buildings. The application of this framework in Qom has led to the identification of 16 viewing places (3, 2, 8, and 3 panoramic, linear, inside-river, and townscape viewing places, respectively) as well as 18 viewing locations and 26 strategic assessment points. The present research considers this document to guarantee the protection and management of the city's strategic view. Moreover, to arrange and organize the visual discipline of other sacred cities, such as Mashhad, Karbala, Najaf, etc., it is suggested that the visual management framework document be put on the agenda as an efficient plan.

Keywords | *Strategic View, Legibility, Key Landmark, Height Criteria, Visual Discipline.*

Introduction | Those cities in which the shrines of the Imams and their Ahl al-Bayt are located have a religious identity as "sacred" cities. In the tradition of forming such cities, coming to the spiritual origin embodied in the Imam shrine was happening step by step. Also, while maintaining the hierarchy of presence, shrine light was always growing throughout the city. Pilgrims of the shrines who visited these cities matched their mental schema to objectivity influenced by divine observation and celebrated a sense of

identity as a ritual¹. Then, not by a sudden presence in the sanctuary, but by visually focusing on the remembrance of the holy object, while entering the city, passing through the city layers and approaching the shrine, in the combination of the serial vision ideas, the sense of place was perceived². Today, with the destruction of the visual organization of the sacred cities, chaos has been created, as the city's spirit is no longer in harmony with the pilgrim's spirit. Even though achieving a visual organization with integrated identity (on a large, medium, and small scale)

**Corresponding author: +989192908719, s.yadollahi@mail.sbu.ac.ir

can positively attract tourism and the creative class at the national and international levels and offer a new theory on the subject of sacred landscapes. A practical approach in perpetuating the visual identity of sacred cities is the protection of “strategic views” with clear sight to the shrine against visual obstruction by physical elements. However, these cities have not been separated from the accelerated development in recent years. In the sacred metropolises, ignoring these views and the massive growth of high-rise buildings, caused the shrines surrounded. Not controlling the vertical and horizontal development of cities has led to the destruction of identity views and the degradation of urban spaces’ quality. Moreover, the lack of a practical framework of a city’s visual management process and structure has become an influential factor in disregarding strategic views in urban plans.

Research Question

This research seeks to answer: how is it possible to guide the views leading to the shrine element in the sacred cities? Moreover, through which mechanism can these principles be sustained during urban development?

Hypothesis

It seems that the process of strategic view management can lead to the establishment and maintenance of an optimal visual relationship between the shrine as a significant element and the public spaces in the sacred cities at different scales and steps.

Methodology

In terms of purpose, this research is practical-developmental, and the research method is descriptive-analytical. Library and field survey methods were used in data collection. Techniques for analyzing the city visual form extracted from library studies and accurate visual perception was the criterion in the field survey method. In analyzing data, techniques of geometric definition for protection of selected views, visual management plans, height analysis of profiles in GIS, and the introduction of qualitative visual assessment (QVA) were used.

Theoretical Foundations

According to Lynch, an urban landscape influenced by the visual quality contributes to legibility (Lynch, 2008) while in Cullen’s point of view, it results in visual pleasure (Cullen, 1961). Also, Zekavat has used the word “View” and landscape interchangeably (Zekavat, 2007). Behzadfar has regarded the knowledge of urban design and landscape design as one (Behzadfar, 2007), and Mahmoodi has considered the urban landscape as an observation of objective reality (Mahmoodi, 2007). In general, they have emphasized the role of visual qualities

in the urban landscape. However, Ruskin has known the urban landscape as the issue of values, human goals, and the recognition of social responsibilities (Raskin, 1974). Similarly, Mansouri considers the urban landscape to be a member of the urban community that has been present with its inhabitants in all memorable experiences and events (Mansouri, 2005) and does not consider it as the science of symbolism and the imposition of historical signs (Mansouri, 2010). According to the above definitions, for the contractual literature in the present study, the distinction of concepts is made in the following three “definitions”:

“Urban View”: It refers to constant visual qualities at a distance from areas of the city, which are received from specific locations and areas (Zekavat, 2016). They are the same as the objective view of the city perceived through eyes, which is placed in the perceptual subsystem (Golkar, 2007).

“Townscape”: It stands for the visual qualities of the urban space, which the viewer receives from the environment in the movement and time passage (Zakavat, 2016) and is still in the perceptual subsystem (Golkar, 2007).

“Image of the City”: It is a valuated mental schema of a townscape and urban view in the viewer’s mind, which play an essential role in creating a mental image under the influence of various factors (physiological, social, religious, etc.) (Pakzad, 2007). Looking with the mind’s eye in the cognitive subsystem, and looking with the heart’s eye in the evaluative subsystem, are included in this concept (Golkar, 2007).

Thus, the “urban visual environment” reveals their community’s social, economic, and cultural characteristics through a complex system of marks. In the interaction process between humans and the city, the visual environment as the “interface” provides the basis for people’s perception, knowledge, and environmental assessment (ibid.). Urban design as spatial management (and one of its components: visual management) is used to control the visual environment in strategically scale. The “concept” of the city visual environment has evolved from birth until the maturity of urban design in four stages: In the cosmetic/decorative urban landscape approach, the crusts are covered with a thin wrap and a luxurious garment over the city body (Benevolo, 1974). In the functional/programmatic urban landscape approach, the accumulation of modern pavilion buildings and the discontinuous facade of the walls becomes common (Tranick, 1986). In the perceptual/contextual urban view approach, the issue of “movement” in urban view evaluation is emphasized for the first time with the theory of “serial vision” (Cullen, 1961). Also, understanding “urban design” as “urban view management” makes the compilation of implement for “geometric management

and conceptual management of urban view” one of urban management’s tasks (Golkar, 2003). In this regard, “V.M.F” (View Management Framework) (Greater London Authority, 2010) and “Form-Based Zoning Ordinance” (Form-Based Zoning Ordinance, 2004) are practical documents. Finally, a sustainable urban view approach optimizes the urban view concept by combining nature and ecosystem in action (Golkar, 2008).

In the recent approach, the urban “Visual Discipline” studies on a large scale examine the visual capabilities of the entire city. Then, it deals with the capabilities, identities, and area characteristics on a medium scale. Moreover, on a small scale, it recognizes the townscape qualities of urban spaces (Table 1). The “Urban Visual Management Framework,” while presenting strategic policies for organizing and controlling the visual discipline as the authorities’ responsibility, pays special attention to key views. Key views at different scales make it possible to see a key element legibly throughout the city. These views, which originate from the key element character and nature are rooted in the people’s culture and perception, are known as the “Strategic Views.” The mental dimensions of the strategic view, or what people perceive in the face of the urban view, form an essential part of the view content. The coherence of this dimension from the urban view is with objective dimensions that lead to the formation of «visual identity» and give it meaning (Zakavat, 2016).

Hence, the main component of highlighting the urban identity, which leads to its visual recognition, is based on the people’s psychological and cultural dimensions. One of these semantic dimensions is the “sacred landscape,” which is used in Islamic cities, pilgrimage places, holy shrines, and mosques, in Christianity, churches, and shrines of saints, in most divine religions, a selection of natural elements such as a spring or cave in a mountain (Nattagh & Mokhles, 2019). Meanwhile, in Shiite culture, places where shrines are located (in Persian Mashahed), there is an emphasis on the principles of visual recognition. This shows the respect of Shiites for the sacred elements. As it is considered inappropriate to build a building above the Kaaba or by Imam Muhammad Baqir and Imam Sadegh (Al-Hurr al-Amili, 1993), it is legislated as one of the special divine laws in the city of Mecca. It is possible to extend this principle to other Mashaheds or “Sacred

Cities.”³ Therefore, the strategic view whose purpose is the visual recognition of key elements to promote visual identity; in sacred cities, it visually recognizes the shrine element (objective dimension) to promote the religious identity (mental dimension). For this reason, the “Strategic View Management Framework” document is the primary measurement for controlling the form of the visual environment in sacred cities.

Global Experiences in Urban View Management

Urban view management may be considered at different stages of the spatial planning process. Examples of the position of urban view management can be given: Large-scale documents that determine urban design strategies such as Policies related to strategic view management in The London Plan as well as City-wide dimension in The Edinburgh Standards for Urban Design; Medium-scale documents that are used in compiling an urban design framework, such as *View Corridors to Protect the Site of Paris*; Finally, small-scale documents such as *Station Hill South Planning and Urban Design Brief* (Reading Borough Council, 2010). In this regard, the London Plan in “London View Management” policies provides a list of buildings and urban views that identify the city of London at a strategical level (Fig. 1) (Greater London Authority, 2019). These policies state that any proposals on the mentioned list must follow the design principles of the London Plan, the local urban design policies, and the principles of urban view management (Greater London Authority, 2010 & 2012). Accordingly, in the city of London that is relatively flat, where the topographic context is not particularly helpful in shaping and managing views (Alehashemi, 2014), the urban view management plan seeks to create an organization based on natural, historical, and identity areas. Moreover, it does from large-policies to the definition of specific points of view and details (Mahmeli Abyaneh, 2011).

The city of Edinburgh, which offers the best topography for receiving views compared to other British cities, through the Urban Design Standards Document, follows specific principles for urban wide-scale views, many of which are intimate, civic, and circumstantial. This document aims to identify, protect and enhance strategic views toward key elements of main accesses, gateways,

Table 1. Evolution and scale matrix of visual organization studies. Source: Chitgarha, 2013.

Evolution Scale	Cosmetic/Decorative Approach	Functional/Programmatic Approach	Perceptual/Contextual Approach	Sustainable Approach
Small	+	+	+	+
Medium	-	-	+	+
Large	-	-	+	+

and dominant public points (Fig. 2). Key elements such as significant landmarks, hills, skyline (city silhouette), identical urban areas (World Heritage Sites) and layers of the built environment, and other conservation areas are prominent in most parts of the city and even in the suburbs (The City of Edinburgh Council, 2020). In the plan to protect the site of Paris, the aim is to identify the iconic landmarks, examine the visual corridors to the significant and identifiable elements, and protect these key views (Fig. 3). The conservation principles are based on preventing the destruction of protected elements (including plots of land, buildings, and sections with significant architectural quality or evidence of the city's history) also the spatial, capacity, facade, style, or color compatibility of proposals with urban views, moreover, the height adjustment of roadside structures to maintain architectural effects through value and unity in the urban views (Délibération du Conseil de Paris, 2016). In this appendix of the city development plan studies, wide views, linear views, and inside prospects are selected from urban view types according to the unique natural context and numerous urban symbols and statues that make up the city's townscape character and city's architectural brands. Furthermore, the geometric method is the criterion for their protection (Ghazvineh, 2015).

Strategic View Management Framework of Sacred Cities

The strategic view management framework illustrates of manner, situation, description, attributes, and composition of defined views and serves as a guide to visual organization based on the principles of development management. The policy making for this section is according to Table 2. Each designated strategic view is unique, but their

common management principles are very similar, so the Strategic View Management Guide is hierarchically based on the following three levels of evaluation (Fig. 4).

Description of Strategic View Areas and Elements

The components of a designated strategic view are classified into three categories:

The Viewing Place has one or more Viewing Locations. For each of the designated strategic views, a separate management plan results from the viewshed analysis of the Viewing Place. Since, within each Viewing Place, one or more special locations may provide the best perception of the view, which are the Viewing Locations. They in each management plan are identified by a letter after the relevant strategic view number (1A, 1B, Etc.). Viewing Locations are public spaces from which it is possible to have a strategic view.

Each Viewing Location involves one or more Assessment Points; Each one has defined a 120-degree field of viewshed with an image of visual management guidance. In the management plan, the Assessment Points are numbered based on the viewing place, and the viewing location (1B.1, 1A.2, Etc.) and are displayed with a red symbol. Future developments should be analyzed based on the field of view defined at these designated Assessment Points (If part of the field of view qualifies for the desired view for any reason, additional Assessment Points can be added within the viewing locations).

Sometimes it is essential to consider a strategic view that requires people to move or relocate to see the view. In these cases, a red line is drawn between two or more Assessment Points; It is also necessary to grade the assessment points in the proposed designs for analysis. In areas where the likelihood of changes in the character of views is mediated,

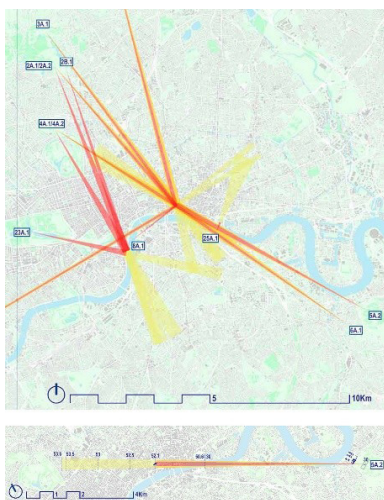


Fig. 1. Protected vistas in the London Strategic view Management. Source: Greater London Authority, 2010 & 2012.

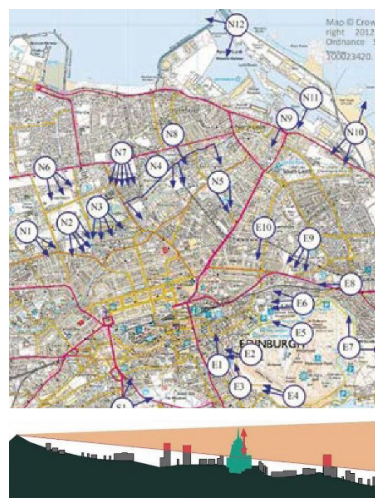


Fig. 2. Topography impact on the view corridors of Edinburgh. Source: The City of Edinburgh Council, 2020.

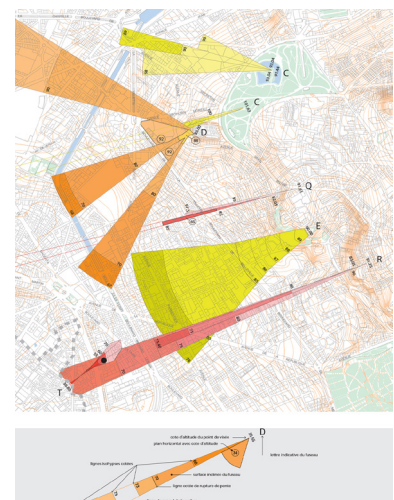


Fig. 3. Map of designated urban view in Paris. Source: APUR, 2009.

Table 2. Policy-making and planning for the strategic view management of sacred cities. Source: Authors based on Greater London Authority, 2019.

	Strategy	Planning actions Planning decisions
Determining strategic views in holy cities	Strategic Views in the Sacred Cities should be designated for inspection and visit. These views are available from accessible public places and contain the Shrine or the view that continues the sacred City identity, which exhibits at least one of the following: Panoramic Strategic Views in a considerably wide of Sacred Cities, strategic Views of urban spaces or a group of Shrine buildings in the context of a Townscape (which also includes Linear Corridors) or River Strategic Prospect along rivers within the Sacred Cities; The intensity and manner of future development in strategic views are determined by whether it is located in the foreground, middle ground or background.	Within designated Strategic Views, the element of “Shrine” must be recognized as the “Urban Strategically Important Landmark” in terms of aesthetics, culture, and other contributing factors to discern what contributes to the viewers’ ability to understand and enjoy strategic views. Strategically-Important Shrines should be identified in the views that make a significant contribution to the image of sacred cities or provide a significant religious-cultural orientation point. Moreover, should protect vistas towards shrines by designating shrine viewing corridors and wider setting consultation areas. Aspects of strategic views that contribute to viewers’ ability to recognize and appreciate the shrine’s authenticity, integrity, and attributes of outstanding universal value must be preserved and strengthened, and the religious identity maintained.
	The new urban development should not harm the character and composition of the shrine element, the primary indicator of the sacred cities. On the contrary, the recognition and appreciation of the shrine strategically element should protect or increase the possibility of having strategic views. In areas deemed appropriate, the shrine’s silhouette, as a World Heritage Site, should be protected from development so that it is visible from viewing places.	Development in the foreground and the middle ground of strategic views should not be intrusive, unsightly, or prominent by encroaching on the visible area of the shrine. Proposed development plans in the background of a strategic view should provide a context for the shrine element and should not harm the composition and rhythm of the entire strategic view. Where a silhouette is identified from the World Heritage Site of the Shrine, No adjustment should be made to the background. Development estimates in the foreground, middle ground, and background of strategic views should be calculated based on distance, atmospheric, or seasonal variation. New developments in strategic views must fully comply with the following: A) Panoramic strategic views: It should be managed in such a way that develops in them is commensurate with a prevailing pattern of buildings and spaces, and the breadth of the landscape should remain untouched. Management of views that make the possibility of seeing the shrine must have a proper sectoral arrangement. B) Inside-River strategic prospects: It should be managed to ensure that the proximity between the river elements and the shrine can add to the identity and value of the mental image within wider sacred cities context. C) Townscape strategic views and Linear strategic views: It should be managed in such a way that the possibility of seeing the shrine element or a combination of the sacred space of the shrine is protected in the vicinity of the surrounding area, including distant buildings. Viewing places should be publicly accessible ⁴ and managed to increase the visibility of citizens and more people to experience strategic views. In areas where there are protected strategic views: A) Refrain from any development that exceeds the designated threshold height. B) Development in the wider setting consultation area of the shrine should add attractiveness and recognition to the sacred element. Also, the construction around the shrine element should not cause a canyon effect in the corridors of strategic views. C) Development in the foreground of the mentioned views should not reduce the eminence of the shrine. An undesirable urban design pattern should not be seen in view. In strategic view, the necessary actions should be taken to identify the views and silhouettes of the shrine.
Organizing the shrine and its surrounding areas	In the event of any development in the World Heritage Site of the shrine and its settings, including all circumferential realm areas, its importance, and public eminence must be protected from any harm, promoted, and entrusted to future generations. The sacred city’s manager should also liaise with stakeholders to determine the direction of growth and development of World Heritage Sites and their environment.	Development should not lead to inconsistent treatment of World Heritage sites and their settings. This order includes all surrounding areas, which is likely to be appropriate for citizens’ perception of the eminence and universal value of that heritage, to trusteeship for posterity is determinant and is a document of their importance. To plan practically and properly, a management plan must be provided that includes the necessary tools and regulations. Protection, promotion, and development, preservation, and recognition of the historical significance of the World Heritage Sites and their outstanding universal value, integrity, and authenticity Protection, and in necessary cases, appropriate development of both World Heritage Sites and their settings. Where available, World Heritage Site Management Plans should be used to inform the plan-making process.

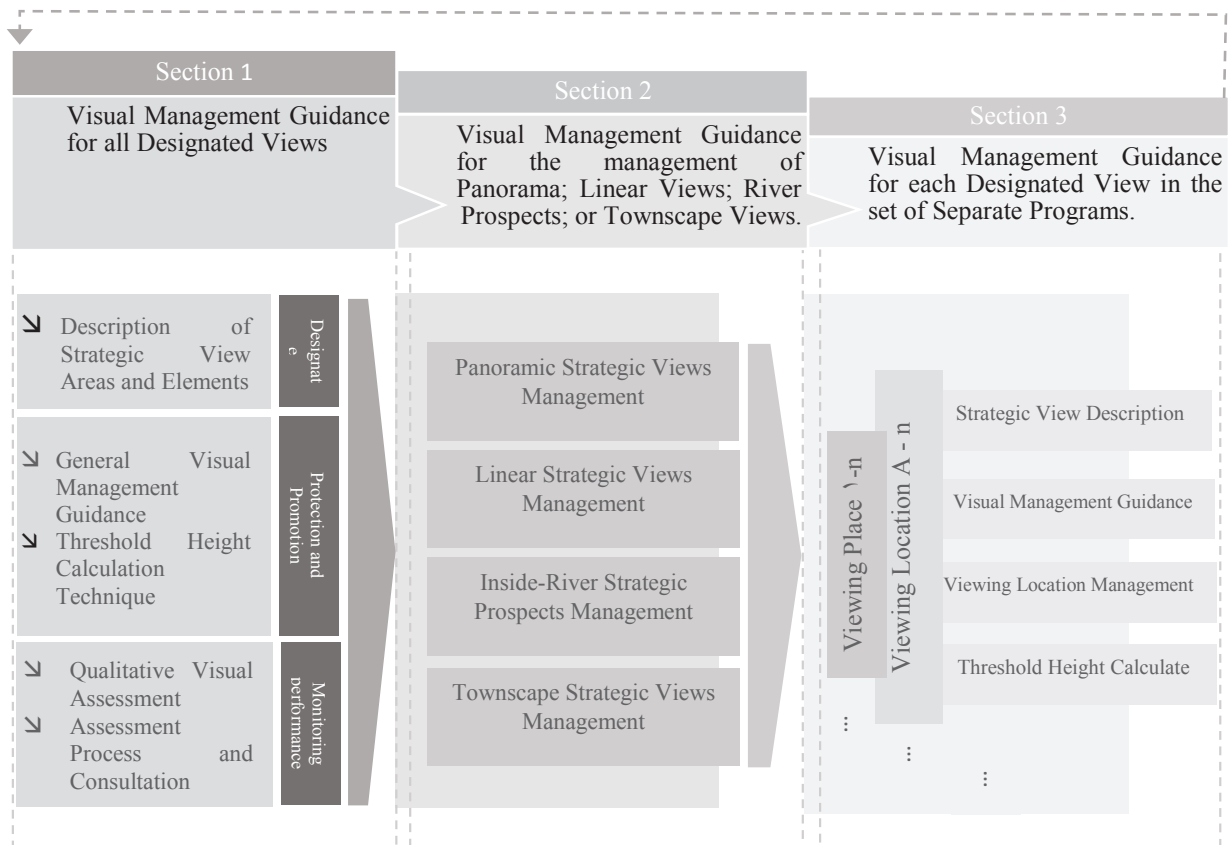


Fig. 4. Strategic View Management Process and Hierarchy. Source: Authors.

particularly the townscape, one or more accurately graded Representation should be provided to assess their impact. Obviously, the location of the designated Assessment Points for strategic views should have the best sight.

The Foreground and Middle Ground are between the viewing location and the shrine and sometimes between the viewing location and the visible general skyline. Background extends to the back of the Background or the Middle Ground. Part of the Background may include the horizontal perspective of the shrine⁵, along with the Backdrop⁶. Most Protected Vistas are identified in these zones, which is geometrically an area with a general posing of the up or downward of the sightline between an assessment point and the shrine and sometimes continues into the Background. This area has a certain threshold height with which the sightline must be in harmony for a certain period. Protected vistas consist of the following components (Fig. 5).

Shrine Viewing Corridor: It is a conical area between the assessment point and the shrine. The designated threshold height for this area results from the sightline connected to the viewer at the assessment point with the designated target, which means the shrine. As the central part of the protected vista, future developments should not exceed this elevation threshold.

Suppose the quality of the existing buildings in the Shrine

Viewing Corridor is of no value or destructive, in that case, alternative buildings should not be designed in a way that part of the target element is covered by any member of the new building or exceeds its threshold height.

Wider Setting Consultation Area: This range is an area on either side of the shrine viewing corridor in the foreground and middle ground and additionally is its extension in the background in protected vistas. This area should win a sense of Recognition and Appreciation⁷ from the shrine so that this area also can be considered a sensitive area. The development intensity of the Wider Setting Consultation Area depends on the visage proportions of the front or around the shrine. It should be noted that not all protected vistas are necessarily Wider Setting Consultation Areas.

Each protected vista in the management plans section is defined and detailed in the margin of the assessment point that identifies them. The shrine viewing corridor is red, and the Wider Setting Consultation Area is yellow. For readability, the threshold height symbol is indicated by a geometric line (Figs. 6 & 7).

When the proposed development exceeds the threshold height of the protected vista for special reasons, any impact on its identity, aesthetics, and perception, in general, should be considered. When a range is located in more than one shrine viewing corridor, the lowest threshold height should be the criterion for action. New

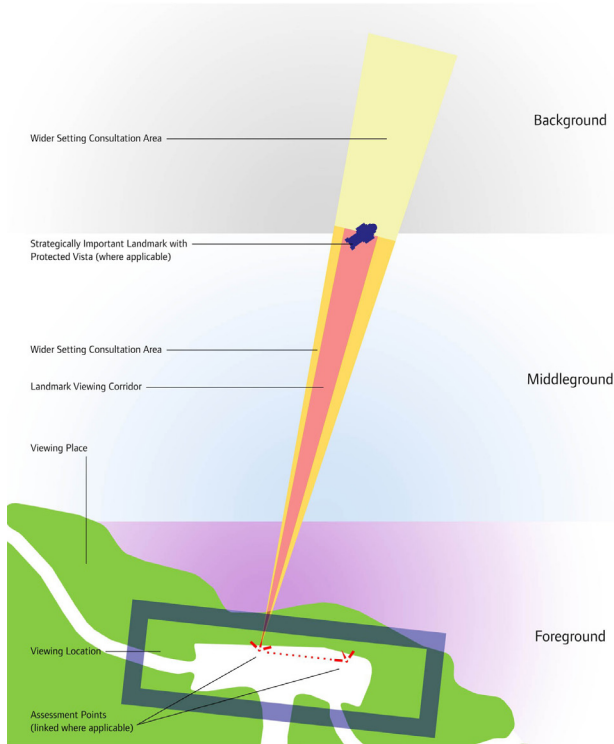


Fig. 5. Areas and elements of a strategic view. Source: Greater London Authority, 2012.

developments should have an attractive and recognizable appearance in visage, mass, and form, and the height criteria of protected vistas alone should not suffice. Protected Silhouette: Shrine Silhouettes have an identity

highlighted in townscape view or inside-river prospect and are well preserved in the texture with a visible clear sky on both sides. So that future developments should not change their background. Obviously, any change that damages the Shrine World Heritage Site and their background in designated protected silhouettes is prohibited, and a mechanism must be put in place to preserve them. Protected silhouettes with a purple line at the top and bottom of the strategic view photo are distinctive (Fig. 8). To clarify the effect of protected silhouettes on the adjacent texture, in each of the strategic view management plans, they are identified as a shaded area, defining from the affected area at the viewing place (Fig. 9).

General Visual Management Guidance

The new development, visible in a designated view, must have a suitable height and excellent quality to design a harmonious and spiritual architecture. It should safeguard the setting and organization of the shrine and, where the development takes place, it must be ideally integrated with the high-rise buildings that have the desired appearance. In general, the new development should not harm viewing possibility from the shrine. Determining the intensity and extent of urban development in strategic views is based on Table 2. Strategic views in sacred cities are invaluable. Because of their essential contribution to strengthening the ability of citizens to perceive a sense of identity of a sacred city, they are also providing the opportunity to

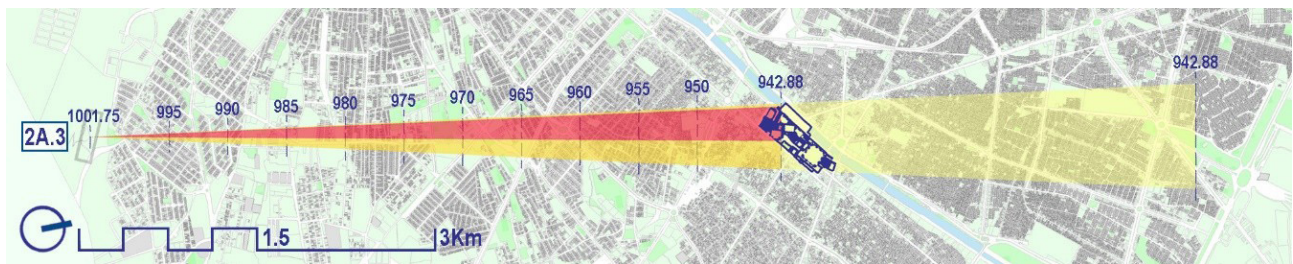


Fig. 6. Map of Protected Vista, annotated to show indicative threshold heights. Source: Authors.



Fig. 7. Telephoto view from Assessment Point showing Protected Vista thresholds. Source: Authors.



Fig. 8. Panorama annotated to show extent of Protected Silhouette. Source: Authors.

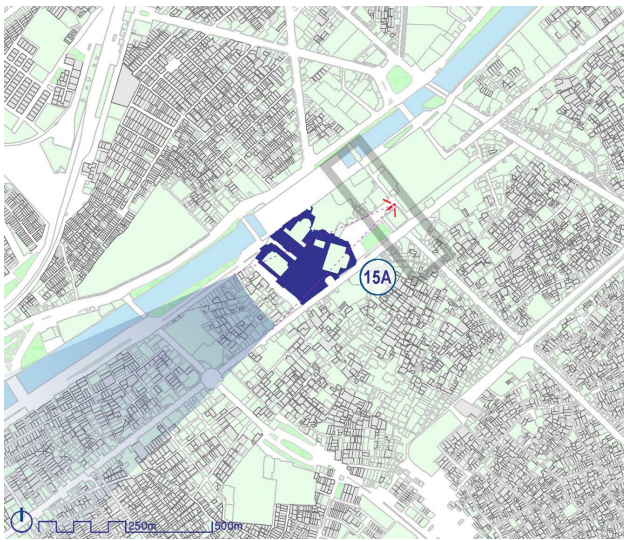


Fig. 9. Shaded area, showing area affected by a Protected Silhouette. Source: Authors.

see the shrine in urban views and Silhouettes -which are historically and culturally significant- and realize the connection between them. Therefore, if none of the above criteria apply to the key elements, there is no need to protect the views towards them at any level of strategic views. In this case, they should be managed not to harm the composition and character of other designated strategic views. Conversely, suppose the landmark element is not a shrine but is closely related to the shrine in terms of physical function and meaning. In that case, it can be pursued as a strategic element for strategic planning and management (Yadollahi, 2014).

Threshold Height Calculation Technique in Protected Vistas

The proposed development, located within the protected vistas, must be calculated to determine the threshold height. For locations within the wider setting consultation area, a simple calculation of the identification of a cone of view and the determination of the threshold height is

performed based on the distance relationship between the assessment point, the purpose location, and the shrine. If part of the purpose location is inside the shrine viewing corridor and has the viewing obstructing potential, the calculations will be performed more accurately.

• Threshold height of wider setting consultation area in protected vista

The assessment point's longitude, latitude, height (A_x , A_y , A_z), shrine's longitude, latitude, height (B_x , B_y , B_z) are recorded in the desired protected vista. A vertical axis is determined from the hypothetical point P, inside the development zone, and point Q, the extension of point P on the axis AB (Fig. 10). To measure the lengths, AQ (L_1) and AB (L_2), the Pythagorean relation or measurement systems in CAD or GIS software are suitable.

Now, the threshold height at the point Q (Q_z) can be determined according to the following formula, which is obtained by the method of similar triangles, i.e. (The threshold height for the hypothetical point P (P_z) within the wider setting consultation area is the same as the threshold height set for the point Q (Q_z)) (Greater London Authority, 2012).

$$Q_z = A_z + L_1/L_2 \times (B_z - A_z)$$

To determine the threshold height in the background of the wider setting consultation area of the protected vistas, the desired line is first drawn in the purpose range from the assessment point to the shrine, which is descending or ascending. If it is descending, the height of the assessment

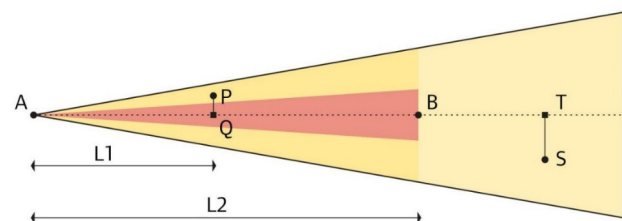


Fig. 10. The status of the designated hypothetical points in the wider setting consultation area of protected vista. Source: Greater London Authority, 2012.

point (Az) is higher than the designated point in the shrine (Bz), and to determine the threshold height for the wider setting consultation area of the background, the horizontal extension of the hypothetical line in the background of the protected vistas is determined. If the assessment point height is lower than the shrine, an approach similar to the foreground is taken to determine the background threshold height. In this regard, sample calculations in the desired range called point S can be performed relative to point T, which lies on the projection of the line AB. In this case, the lengths L_1 and L_2 are the distances AT and AB in the map, and the following formula obtains the programmed height for the point T (T_z):

(The threshold height of the hypothetical point S (S_z) is similar to the threshold height calculated for the point T (T_z)) (ibid.).

$$T_z = A_z + L_1/L_2 \times (B_z - A_z)$$

• Threshold height of the shrine viewing corridor in a protected vista

The rule by which the threshold height of the shrine viewing corridor can be calculated is discovered based on the surveying mechanism. It calculates the “Curvature of the Earth” (Fig. 11) and also makes corrections for the partial error of “Refraction of Light through the atmosphere” (due to existing distances). Such a rule always reduces the threshold height within the shrine viewing corridor to the “straight line” method (Fig. 13).

The height of the assessment point and the point of the shrine are recorded in the desired protected vista. Then the height of the hypothetical point P inside and the point Q, which lies closest to the point P on the line AB (Fig. 12), and the lengths L_1 , L_2 , and L_3 are obtained similar to the calculations of the wider setting consultation areas.

The following formula is used to calculate the adjusted height at the assessment point ($A'z$) and shrine ($B'z$) (Greater London Authority, 2015):

$$\text{Adjusted height at Assessment Point: } A'z = A_z - 0.0673 (L_1/1000)^2$$

$$\text{Adjusted height at Landmark: } B'z = B_z - 0.0673 (L_3/1000)^2$$

The threshold height Adjusted from Q ($Q'z$) can now be obtained according to the method of similar triangles described below: (The threshold height Adjusted from the hypothetical point ($P'z$) within the desired range can be obtained similar to the calculation of the threshold height Adjusted at the point Q ($Q'z$)) (ibid.).

$$Q'z = A'z + L_1/L_2 \times (B'z - A'z)$$

Monitoring Performance

All designated views will be audited and managed using a Qualitative Visual Assessment (Q.V.A) technique. The proposal's action plan that is likely to impact the



Fig. 11. The Curvature of the Earth error in seeing strategic views. Source: Greater London Authority, 2012.

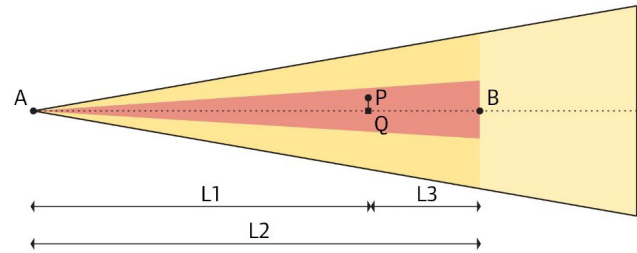


Fig. 12. The status of the hypothetical point designated in shrine viewing corridor in a protected vista. Source: Greater London Authority, 2015.

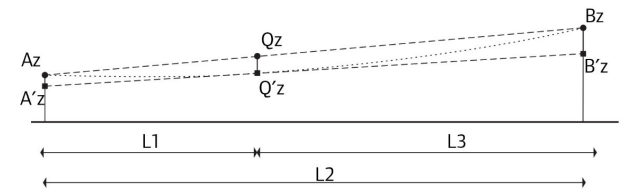


Fig. 13. Adjusted height function, in protected vista. Source: Greater London Authority, 2015.

designated strategic views should be accompanied by an analysis and assessment to evaluate, describe and ultimately justify any impact on the views. In other words, the analysis and assessment must prove that the proposed design is compatible with the document, taking into account the conceptual issues, scale, and perception of the magnificence caused by the size, shape, and type of design. Construction applicants must proceed with the analysis and assessment process in three steps for approval (Fig. 14). In describing the quality and character of each of the strategic views with their supporting images, it is not possible to fully show the human rich view experience of the viewing place. Applicants are therefore expected to show more specifications in recognizing the severity of the impact of a proposal on a strategic view; Therefore, to aid the assessment, an accurate visual representation should be made to describe the proposed development. An Accurate Visual Representation (A.V.R) is a static or

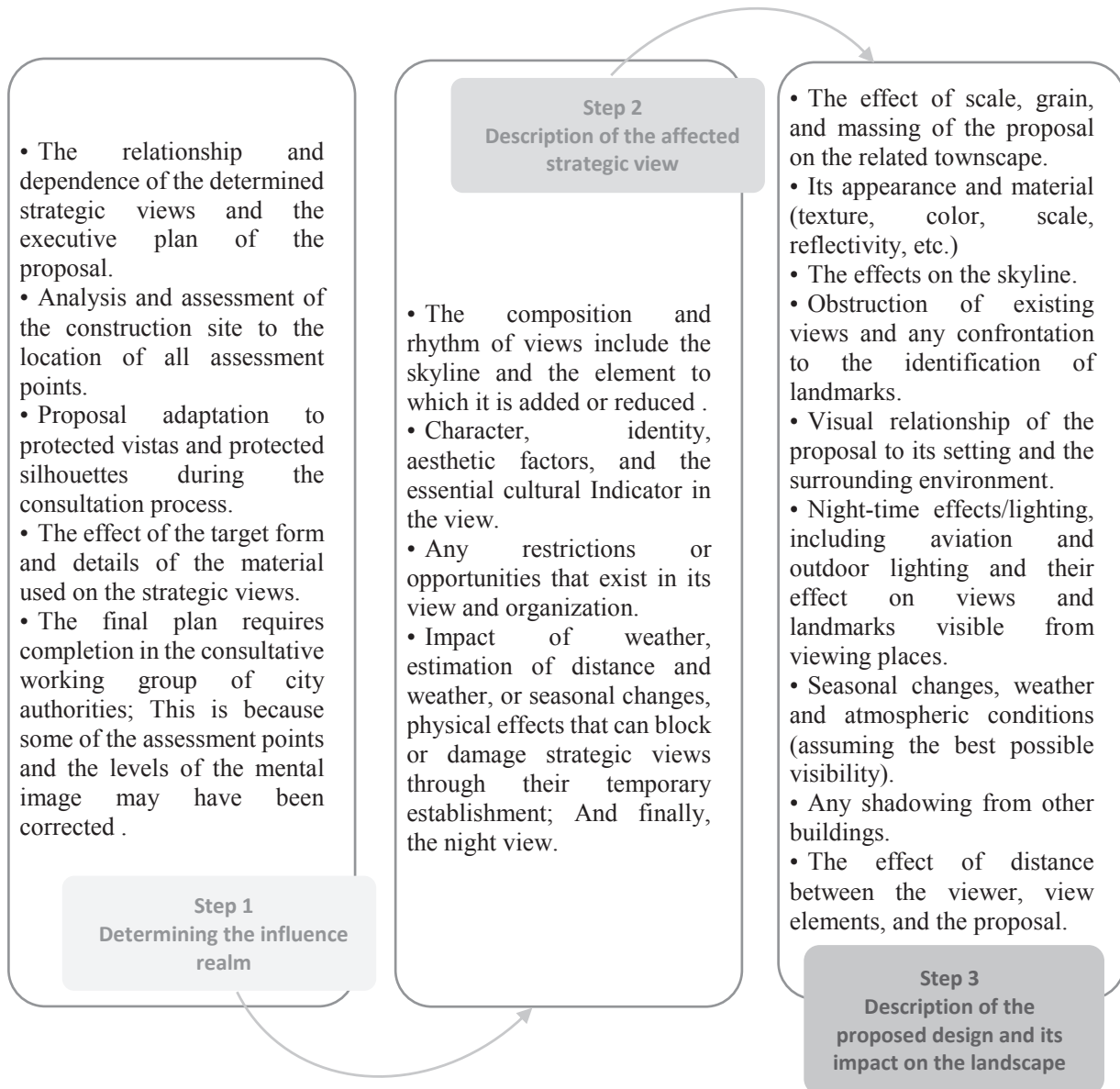


Fig. 14. Qualitative Visual Assessment Steps. Source: Greater London Authority, 2012.

moving image that shows the proposed development position, readable grading, form details, and materials used. It also combines the proposed development images with a representation of the existing view. Accordingly, if the proposal has an essential impact on a defined strategic view or is contrary to document management principles (a plan based on selfishness and arrogance), members of the expert group of the authorities can, during the “Assessment Process and Consultation” refuse to implement it. Region operators who decide to license the proposals should not issue a license until after the Consultation team has submitted its expert opinion on the proposal. The decision of the responsible Consultation group must explain all the reasons for accepting or refusing.

Management Guidance of Classified Strategic Views

• Principles of Panoramic Strategic Views Management

Panoramic strategic views typically allow the sight of the city’s shrine area from high, public open spaces (Fig. 15). Development in the foreground and middle ground must be commensurate with the desired pattern of buildings and the space within the strategic views and must not diminish the breadth of the view. Shrines are landmarks that help promote guidance in cities and Cause legibility and orientation in views; thus, each panoramic strategic view encompasses one or more protected vistas to gain recognition and appreciation of the shrine. Development in the foreground, middle ground, and background of panoramic strategic views should provide an appropriate organization to the strategic shrine element, through

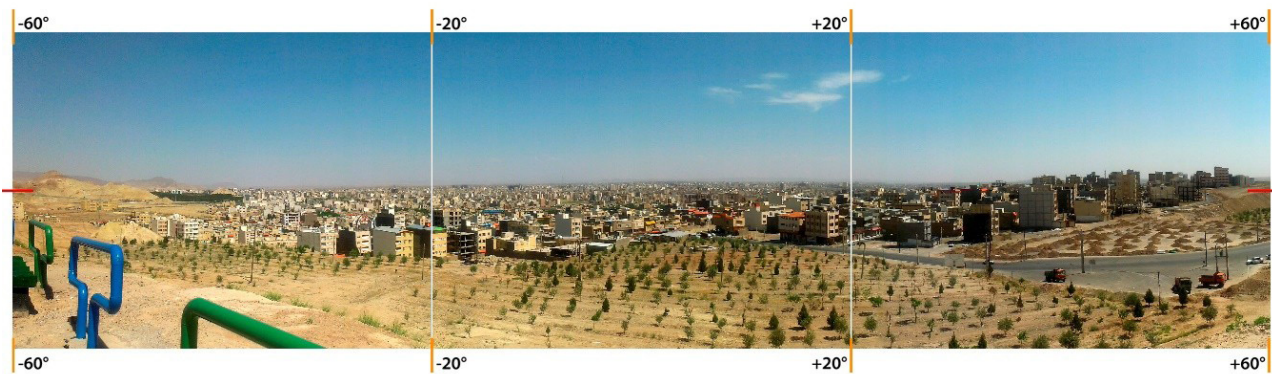


Fig. 15. Panoramic strategic view of the city of Qom, from Khezr-e Nabi Mountain; Shrine in the center of view. Source: Authors archive.

to the lack of excessive crowds around, and prevent the canyon effect around the protected vistas.

The Foreground and Middle Ground of Panoramic Strategic Views can be strongly influenced by the quality of the elements in the foreground, which may be composed of different textures, materials, colors, shapes, and forms. The middle ground is also an important part that leads from the foreground to the main focus of the view. The theme of the viewshed display, including the roofline, colors, and materials, most often shows a mixture of different areas; Those differences may have a masterful and subtle character or contrast to an opposite and extreme one. The middle ground is often a transitional area in which the ratio of the appearance of buildings decreases and is formed in conjunction with more intense physical nuclei. Development in the foreground and middle ground that seems intrusive, unsightly, or prominent or damages the strategic view by protruding and showing off should be avoided. Panoramic Strategic Views Background includes the area extending toward the area behind the main focus of the buildings is within the designated strategic views. The development that is significant in this area should have a suitable height and be controlled by the height criteria, and it should also provide a suitable context for the shrine.

• Principles of Linear Strategic Views Management

Linear strategic views are defined by the distance between physical and natural elements. In these views, the sights' composition quality and structure follow the associated character with the viewing place. They should be managed to enable and enhance the recognition and appreciation of the shrine in combination with the surrounding environment.

In the Foreground and the Middle Ground of Linear Strategic Views, the ability to see a particular building or group of buildings connected to the surrounding environment is considered an important manifestation. A proposal for development in the foreground or middle ground of linear strategic views should maintain or enhance the existing rhythm and composition of the strategic views, including framing the shrine. Also, in this section, a dominant element

should not be seen. Linear strategic views that focus on the shrine element are placed in a protected vista, where the field of view is determined by the elements that create the gap.

In the Linear Strategic Views Background, development must maintain the sight's character that allows the shrine's strategic view to be received in the form of perspectives. Also, the placement of the proposed development in this area should not harm the composition of the strategic view. As far as possible, it should strengthen the relationship between the shrine and the view elements and the perspectives of the linear strategic view.

• Principles of Inside-River Strategic Prospect Management

The views from the riverbeds and its banks to the shrine often provide key images that reinforce the city's identity. The mentioned views and the skyline across the river prospect, from one bridge to another, represent the rich capital and the dominant relaxing atmosphere of the shrine. Sometimes these sights can be experienced by moving the viewer in a linear promenade. Any development must provide the conditions to enjoy the key appearance of the strategic view in a context surrounded by distant buildings.

Foreground and the Middle Ground of Inside-River Strategic Prospects often include the vast domain of the river and its embankments, the foreshore, piers, moorings, and elements associated with activities connected with the river. Sometimes the foreground contains the shrine, in which case the bridges help frame the strategic view and create a particular scene arrangement for the shrine. Consequently, the sense of movement and circulation is perceived by viewers. Development in this area should increase the adjacent urban view elements to river elements and increase the depth and diversity of the surrounding prospect. Also, intervention in the construction style should maintain communication or increase if possible.

In the Inside-River Strategic Prospects Background, while maintaining the existing composition and rhythm of the strategic view, the new development should not appear

in worthy places in the protected silhouette. In return, it should lay out only one context design.

• Principles of Townscape Strategic Views Management

Townscape Views focus on the architectural structure of the shrine. They are strategic views of an architectural structure or urban visage of essential areas. All future developments within the townscape strategic views must be of high quality and controlled height. These views should be managed, so that possibility of shrine sight buildings or a group of them in connection with their surroundings is protected or enhanced. The high quality of the Foreground and the Middle Ground of the Townscape Strategic Views reveals the views' quality. Development within the zones should not be harmful but should be in constructive harmony with the composition and rhythm of the townscape elements.

The Background of townscape strategic views is prone to change. For this reason, any future developments that may affect these views must be carefully considered to ensure that the character of the general composition and rhythm of the skyline is preserved or improved significantly when they influence the shrine scene arrangement. In the place designated as a protected silhouette, developments should not change its background (Yadollahi, 2014).

Research Findings

The strategic view management framework was developed for Qom, the case study of this research. This city is located in the south of Tehran, the capital of Iran, and has a geographical coordinate of 34.643711 ° N and 50.89064 ° E, the capital of Qom province. The city's bed is the banks of the Anarbar River in the Qom plain, which is about 10 thousand years old, the city in this plain has expanded mainly horizontally (EMCO IRAN Consulting Engineers, 2003). Nearly 1,200 years have passed since establishing the shrine of saint-Masoumeh (PBUH) in the Babolan Garden, located in the southwest of Qom and on the Anarbar River banks. The actual residence of Qom starts from this date, and it is from this time, the city was stretched from east to west where the shrine was located (Rashid Yasami, 1938). This structure has caused the city of Qom to have particular potency in the view capabilities evaluation. Because in addition to the linear views and townscape views that Baroque style streets created at the beginning of Iranian modernization, river prospects from the deep creek of the Anarbar River and panorama views from the northern and southern heights⁸ offer a variety of visual capabilities in the city. In this regard, according to Figs. 16, 17 & 18, the strategic views of Qom city have been determined, which is expressed as an example of specific management principles, a separate view management plan 1A.1.

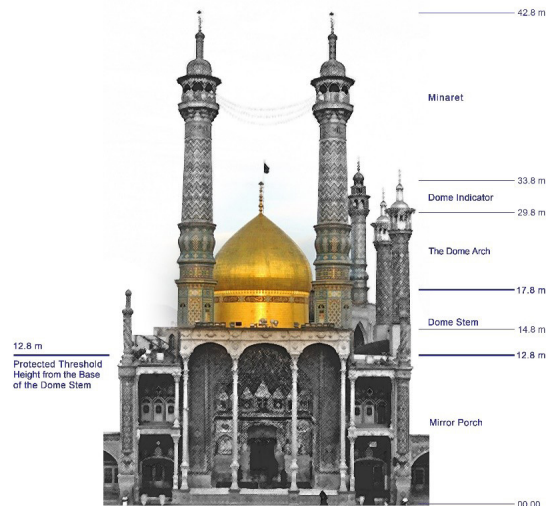


Fig. 16. Architectural features of the shrine of the Saint-Masoumeh (PBUH). Source: Authors archive.

AP	Easting	Northing	Ground height	Camera Height (AOD)
----	---------	----------	---------------	---------------------

Panoramic Strategic Views of the City of Qom

1A.1	489,825.6	3,838,375.3	944.35	945.95
1B.1	489,921.3	3,838,345.5	942.25	943.85
1B.2	489,929.0	3,838,342.6	942.10	943.70
1C.1	489,956.0	3,838,119.5	933.26	934.86
2A.1	487,833.2	3,827,600.8	1,007.05	1,008.65
2A.2	487,883.1	3,827,597.4	1,004.26	1,005.86
2A.3	487,849.7	3,827,631.2	1,000.15	1,001.75
2A.4	487,796.2	3,827,635.8	998.79	1,000.39
3A.1	485,028.7	3,831,244.3	949.04	950.64

Linear Strategic Views of the City of Qom

4A.1	488,579.5	3,836,075.2	920.77	922.37
5A.1	490,449.7	3,834,535.3	920.64	922.24

Inside-River Strategic Prospect of the City of Qom

6A.1	491,018.6	3,835,586.3	914.59	916.19
7A.1	490,265.8	3,834,807.7	920.66	922.31
7A.2	490,255.6	3,834,818.0	920.43	922.03
8A.1	489,576.1	3,834,131.9	925.09	926.69
9A.1	489,237.8	3,833,798.4	928.09	929.69
10A.1	489,172.7	3,833,712.2	927.41	929.01
11A.1	489,094.8	3,833,718.7	927.46	929.06
12A.1	488,557.6	3,833,326.1	926.88	928.48
12A.2	488,508.0	3,833,292.1	927.06	928.66
13A.1	488,039.7	3,832,971.2	933.80	935.45
13A.2	488,036.3	3,832,976.3	933.10	934.75

Townscape Strategic Views of the City of Qom

14A.1	489,068.4	3,833,313.9	929.47	931.02
15A.1	489,130.7	3,833,469.1	928.22	929.82
16A.1	488,961.5	3,833,617.5	924.07	925.72
16A.2	488,734.4	3,833,453.9	925.51	927.16

Fig. 17. Quantitative details of the assessment points of each of the designated strategic views. Source: Authors.

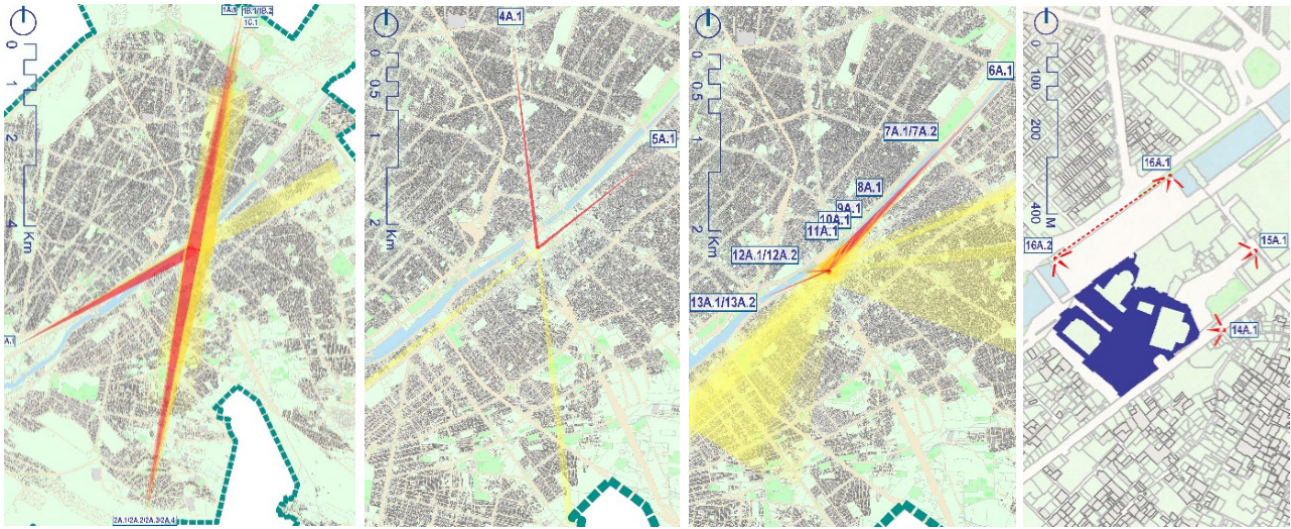


Fig. 18. (In order from left) Panorama, Linear, Inside-River, and Townscape Strategic Views in Qom. Source: Authors.

• Panoramic Strategic Views, Visible from the Area of 72-TAN

The heights of the area of 72-Tan are about 5 km away from the shrine of Saint-Masoumeh (PBUH). This viewing place provides a south-facing view behind the 72-Tan square, which is elevated in the form of a hill. It is tough in visible views from this viewing place to distinguish the boundary between the middle ground and the background. There are three viewing locations in this viewing place; the process performed in the first viewing locations (1A) (Fig. 19) can be seen below:

• Viewing Location 1A

72-Tan Area - Heights Adjacent to the Welfare Service Mall

• Description of the View

In the heights adjacent to the welfare service mall in the area of 72-Tan and, Due to the limited public spaces available, point 1A.¹ was selected as the best point for viewing, recognition, and appreciation from a strategic view (Figs. 20 & 22). As Figs. 21 & 23 shows, In the horizontal direction, the enclosing factor does not encompass the view. However, locating new buildings of a barracks area in the foreground in the shrine's direct sight, limiting the view vertically. In this view, the foreground dominates, not because of significant elements in the foreground but because of its breadth. Extent flows in this view and has made the landscape always visible, but the elements' arrangement has caused a passing and accidental look at the shrine as the view's holy target. The middle ground starts from the top of the barracks and reaches the western and eastern borders. This part has a residential effect from the view. However,



Fig. 19. Placement of strategic view components in the Qom city structure. Source: Authors.

there are also significant buildings with official, medical, commercial, Etc. Uses that function on an urban scale, referred to as the buildings of several hospitals, banks, and cluster residential apartments. Such conditions indicate the maturity and evolution of a visible area. Stone and brick materials are the most materials used in this section. The roofs are often flat, contrasting the foreground Coarse-grained spots with an incorrect gable form. The dominance of the shrine complex of Saint-Masoumeh (PBUH) encompasses the background of this strategic view. In this section, in addition to the

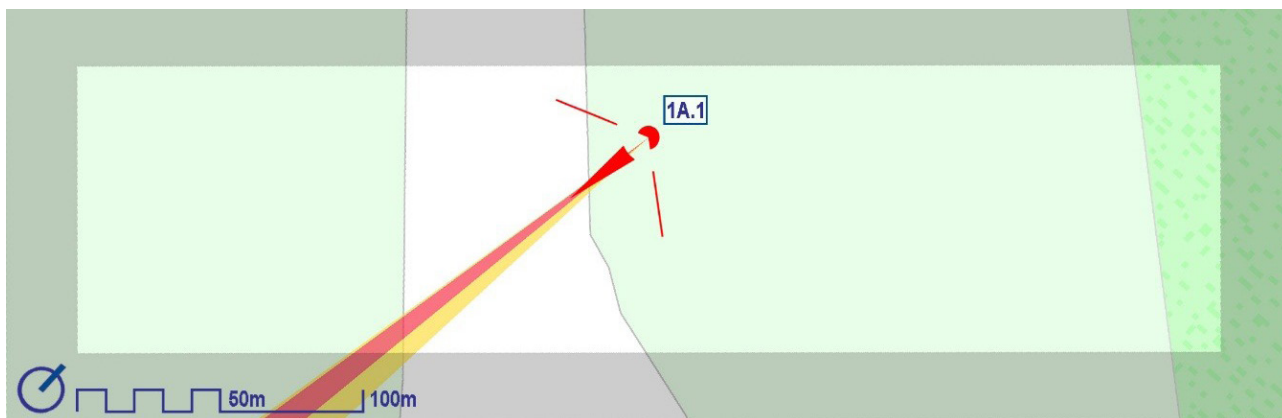


Fig. 20. Viewing location 1A: Heights adjacent to the welfare service mall. Source: Authors.

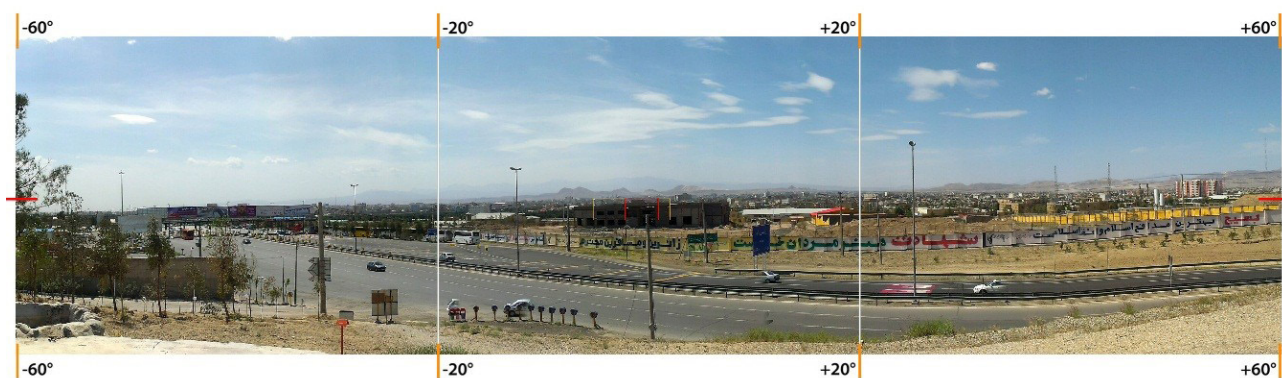


Fig. 21. Panoramic from 1A.1 Assessment Point, 72-Tan area: heights adjacent to the welfare service mall. Source: Authors.



Fig. 22. Assessment Point 1A.1 at the Viewing Place of 72-Tan area: Viewing Location: Height adjacent to the welfare service mall. 3838375.3N 489825.6E. Camera Height: 945.95 m (AOD). Holy Target: Shrine of Saint-Masoumeh (PBUH). Angle: 169 °, Distance: 5.5 km. Shooting time: 11: 22, May 2014. Source: Authors archive.



Fig. 23. View from 1A.1 assessment point with close zoom. Source: Authors archive.

Shrine of Saint-Masoumeh (PBUH) and Azam Mosque (which is connected to the shrine), the holy mosque of Imam Hassan Askari (PBUH) can also be seen. The view towards the shrine of Saint-Masoumeh (PBUH) makes it possible to see the golden dome of the majesty and the stem of the dome so that the base and the initial bed of the stem of the dome are well exposed. This landscape shows a strong sensory of the city's flat geographical and topographic features; of course, the skyline follows the same conditions well and has organized the equal skyline in the horizontal direction of this landscape.

• Visual Management Guidance

New developments in the landscape areas should improve the composition and rhythm of the existing elements in the view and direct the sight towards the shrine complex. The structure of all buildings that create ostentation and affect the shrine dominance in each part of the landscape should be lost optimally.

- Foreground and Middle Ground

Indeed, the most apparent disturbance in this view is the semi-finished building in the barracks. The removal and reduction of its height are preconditions for improving this strategic view. Also, the accumulation and concentration of lighting around the shrine enhance the possibility of a night view. It can be done by adjusting the lighting and illumination of the sight path margin to the minimum standard, and in return, by intensifying the brightness of the shrine sight path according to the maximum standards. Recognition and appreciation of the shrine complex require a protected vista that begins at the assessment point and continues to the shrine.

- Background

In this section, the dominance of the shrine must be maintained and promoted. For this purpose, the shrine viewing corridor is connected to a height of 12.8 meters above the ground, which is the base height of the dome stem. To determine the width of the protected vista, after field studies, the immediate block of the tomb of Saint-Masoumeh (PBUH) was known as the shrine's area. Therefore, the Atigh, Atabaki, and Azam Mosque

courtyards are located in the center of the complex. The wider setting consultation area of the corridor also contains the identity elements associated with the shrine.

Management of the Viewing Location

Entering and accessing the viewing location requires crossing a steep slope, which makes access difficult; thus, providing good access with a gentle slope is one of the prerequisites for managing this viewing location. Placing a signboard in the margins of this viewing location, based on identifying and designating it as the place to receive the strategic view, can directly inform people about the strategic view. The design of the greeting sculpture, during bowing and straining towards Saint-Masoumeh's (PBUH) shrine, in addition to the quick and easy understanding for the citizens about the existence of the viewing place, also determines the view orientation. Use masterful actions that enhance a sense of richness. For example: Scattering the perfume of the Saint-Masoumeh's (PBUH) shrine, playing the sound and songs specific to the shrine, including Naqareh-Zani (bells), the sound of the clock, Azan (the call to prayer) at the same time with the shrine, statue design of the shrine's Zarih (lattice windows) to touch. Also, landscaping of the viewing location using shrubs (rather than tall and bulky trees) in a way that replaces the highway viewshed, in addition to maintaining the existing Stage, is a requirement.

Calculating the Designated Protected Vista Threshold Height

According to Fig. 24 designated protected vista is "descending" in this strategic view. Therefore, the wider setting consultation area of the background is a straight line with the height of the point Bz, i.e., the exact height of 942.88 m, in the background. The calculation of the threshold height of the protected vista is done at two hypothetical points and :

$$Qz = Az + L_1/L_2 \times (Bz - Az)$$

Assessment point: 1A. 1

$$Q_1 z = 945.95 + 753.39/5139.80 \times (942.88 - 945.95) \quad Qz = 945.50$$

$$Q_2 z = 945.95 + 4938.89/5139.80 \times (942.88 - 945.95) \quad Qz = 943.00$$

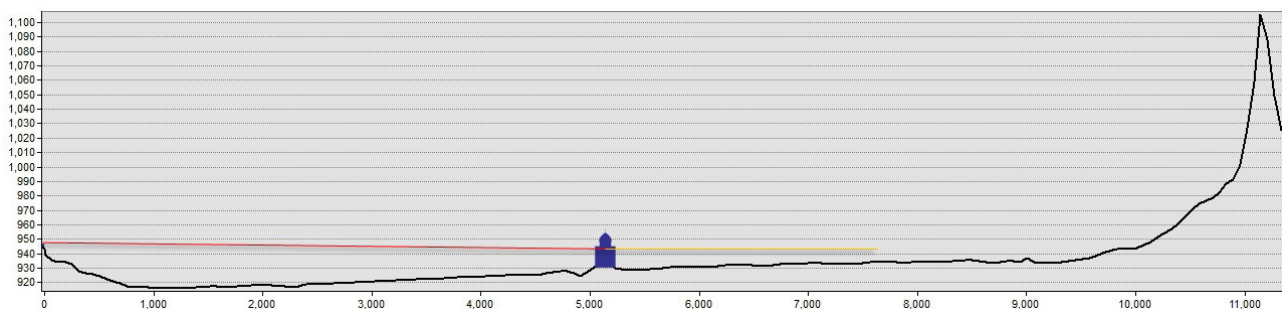


Fig. 24. Longitudinal profile relative to the semicircle of the shrine viewing corridor from the assessment point 1A.1, overlapping with the topographic context of the city. Source: Authors.

In other located points in this section from designated protected vista, threshold height calculations are performed in the same way. Based on this, the geometric characteristics of the protected view are as shown in Fig. 25. Course, the above calculations are specific to the points located in

the wider setting consultation areas of the shrine viewing corridor. To calculate the threshold height of the points located in the shrine viewing corridor, they must be following the Threshold height of the shrine viewing corridor in a protected vista; calculate the height adjustment.



Qom Sacred View Management Framework

Protected Vista from Assessment Point 1A.1

from: 72-Tan Area - Heights Adjacent to the Welfare Service Mall
to: The Holy Shrine of Saint-MASOUMEH (PBUH)

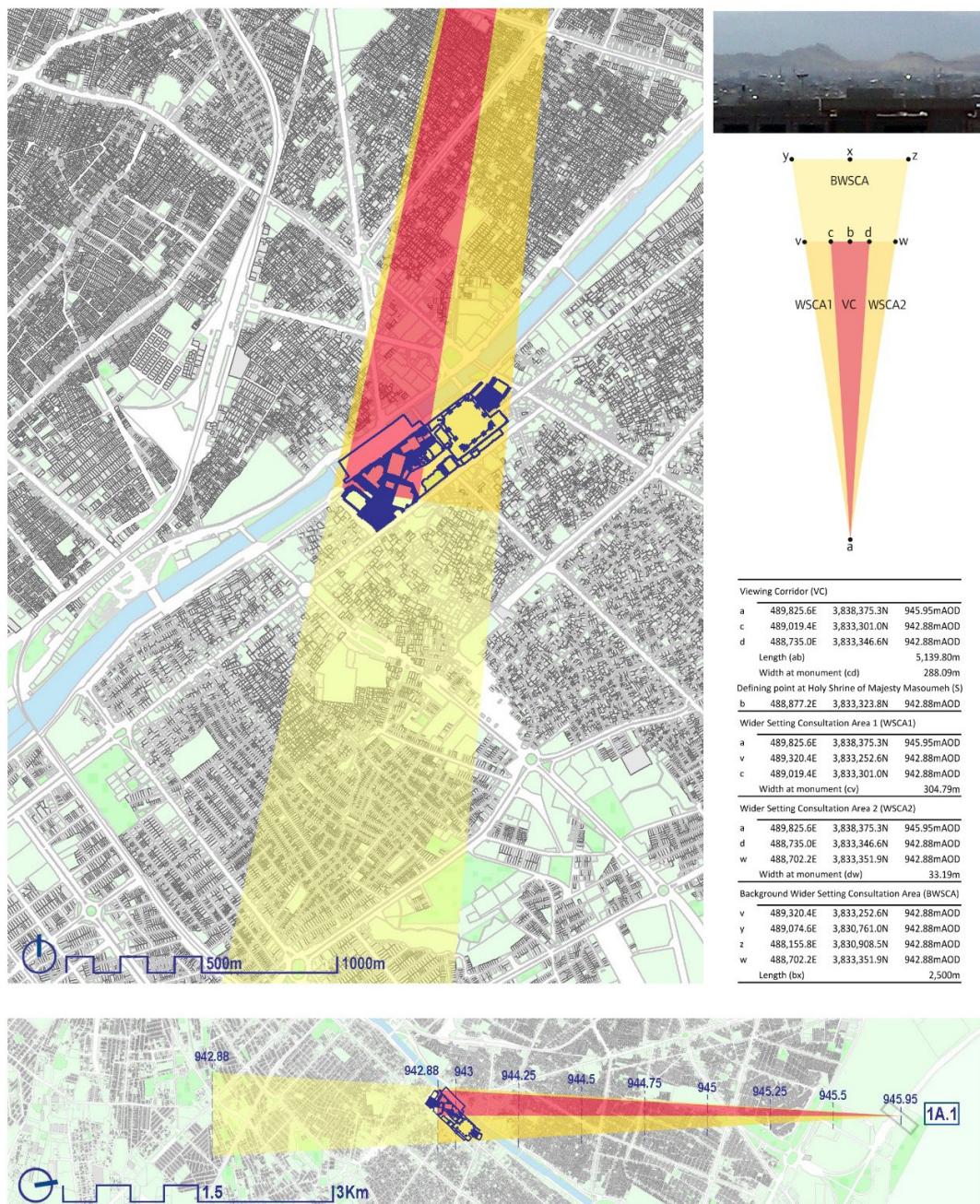


Fig. 25. Geometric definition of the protected view at the assessment point 1A.1 Source: Authors.

Discussion

In this study, the main questions were how to guide the views leading to the shrine element in the sacred cities and how to stabilize these principles during urban development. The present paper explains the process of determining, protecting, promoting, monitoring, and maintaining as the principles of managing the strategic views of sacred cities. It also describes the principles of managing Panoramic, linear, Inside-River, and Townscape strategic views that fall into three scales: large, medium, and small. Finally, it explores the specific principles of strategic view management by pursuing a specific plan for the sacred city of Qom. As can be seen, the overall process is hierarchical and Rotational, consisting of three steps of general management, categorization, and specific strategic views. Each of them involves a hierarchical and rotational process. This fractal structure provides a framework that designs and plans the views leading to the shrine element in the sacred cities. This framework can be revised to adapt to the context of different cities, as it may reduce the variety of types of strategic views or (as well as the strategic gateway views, Etc.) be added to it. Another major part of this system is paying attention to the management component, including monitoring and maintenance, which has made a document efficient in the urban development mechanism. With a practical approach, this document can be supplementary planning guidance of the plans and policies of the Supreme Council of Architecture and Urban Planning, Ministry of Roads and City Planning, Ministry of Cultural Heritage, Municipality, City Council, Improvement and Renovation Institution, Imam's Sacred Sanctuary, Endowment Institution, Revitalization Center of Islamic Heritage, Etc., to review and approve applications and other agreements.

Conclusion

This study found that achieving the appropriate visual organization during urban development requires paying attention to arranging the visual environment of the city. The appropriate visual organization in the sacred cities

highlights the importance of politeness and respect for the tomb building in the city. This is something that the ancients have entrusted to us as wealth. Indeed, the appearance of sacred spaces from different parts of the city, as spiritual guides (reminder), and material guides (landmark), was making a regular and systematic city. In the present era, the protection and strengthening of them as sacred views in the city's future development is the responsibility of designers and planners. This critical issue in the city of Qom, which has valuable visual opportunities and strategic views about the shrine of Saint-Masoumeh (PBUH), has been addressed by defining a view management plan and height restrictions in each of the views. The application of this framework in Qom has led to the identification of 16 viewing places (3, 2, 8, and 3 panoramic, linear, inside-river, and townscape viewing places, respectively) as well as 18 viewing locations and 26 strategic assessment points. Therefore, the present research considers the preparation of a document on the strategic views management of Qom city to guarantor the protection and management of strategic views and landscapes of the city and thus has made it possible to achieve a valuable visual and spatial organization. So that designating and defining the strategic view components, it is explained how to protect each component against threatening elements. This order will illustrate creating and maintaining a visual connection between the shrine element and public spaces in particular city areas as the validity of the research hypothesis. Finally, it is suggested that to prepare visual framework documents to arrange and organize visual discipline of other sacred cities such as Mashhad, Karbala, Najaf, or other cities of Islamic lands as an efficient and effective strategy should be on the agenda.

Acknowledgment

* This paper is the result of the spiritual idea of Seyyed Javad Zaker Tabatabai, whom the authors deems necessary to express his gratitude by remembering him.

* We would also like to thank Dr. Kamran Zakavat, Dr. Pantea Hakimian, and Eng. Abdolreza Golpayegani who have assisted the authors with their reviews and comments.

Endnote

*This article is based on Saeid Yadollahi's bachelor's thesis entitled "Shrine-Centered Cities Holy View Management Framework (Case study: Holy City of Qom)" supervised by "Ali Deneshvari" in 2014 at Eshragh Institute of Higher Education.

1. Claude Anet, in 1910 AD, with the first glimpse of the golden dome of saint-Masoumeh (PBUH) shrine from the hilltop, sees hundreds of cairns as a result of pilgrimage markings and states: "Persian pilgrims have perfect eyes; they are undoubtedly those of faith." (Anet, 1991). Places to watch the first view of the shrine were given unique names. The mountains north of Qom (route from Tehran to Qom) were called Manzarria [view holder] because of the view of the saint-Masoumeh dome. Moreover, the heights of Yazdan in the southwest of the city (the route from Isfahan to Qom), which suddenly showed the golden dome, were known as Tappey-e-Salam [Hello hill].

2. In the early 20th century, Pierre Loti likens the first view of the Saint-Masoumeh (PBUH) shrine upon entering the city to the planet rising from the fire. Moreover, during passing through the layers of the city,

while stating that: "lighthouse (shrine) it appears and disappears, at random with the undulations of the ground and, without we having approached it noticeably, it disappears altogether"; Asks in the heat of exploration: "But this golden dome, this tomb of Masoumeh, glimpsed from so far away, in the midday mirages, where is it? We had doubtless dreamed of it" Finally, he describes the final view of the shrine pose at the bazaar exit door as follows: "sparkling dome enthroned in the middle of a setting which seems to have been arranged thereby some magician, to dazzle us. My eyes, which seen so much, do not remember anything so stunning or so fantastic, nothing so wildly oriental as this apparition from Saint-Masoumeh tomb" (Loti, 2002).

3. As four of the 14 special decrees of Mecca city, including prohibition of action against refugee criminals, short or full permission to traveler pray, prohibition of hunting animals or birds, and God's displeasure with the living in Mecca, have been extended to other sacred cities (Yadollahi, Rastgar, Yadollahi & Roshany, 2017).

4. For example, barracks and some malls do not fall into this category.

5. Strategically Important Landmark
6. The backdrop overlap with the Wider Setting Consultation Area, often in the background. After connecting the Shrine Viewing Corridor to the shrine, and behind it, the backdrop area is formed and extends to the end of the Wider Setting Consultation Area.
7. The phrase 'recognize and appreciate' is a standard measure for maintaining adequate visibility of a shrine. The word 'recognize' is a quantitative measure and concerns the ability of the viewer to see critical parts of a shrine that make up its recognizable composition. The

clarity of the shrine will be affected by a number of factors, including distance, weather, and atmospheric conditions. The word 'appreciate' is a qualitative measure that concerns the way a shrine is perceived. This will be affected by its relationship to other objects nearby in the townscape, the space around the shrine, and the degree to which objects in the foreground, middle ground, and background interrupt the visual enjoyment of it (Greater London Authority, 2012).

8. This work has been done by creating a DEM map of the ground floor of the city of Qom based on the height code map with a 1: 2000 scale.

Reference list

- Alehashemi, A. (2014). Viewing Corridor Management in Tehran. *MANZAR*, 6(28), 12-17.
- Al-Hurr al-Amili, M. (1993). *Wasa'il al-Shia* [Shiite implements] (Vols. 5, 7 & 15). Qom: Al-El-Beyt.
- Anet, C. (1991). *Les Roses d'Ispahan. La Perse en automobile, à travers la Russie et le Caucase* (F. Jelveh, Trans.). Tehran: Revayat.
- Behzadfar, M. (2007). Urban Design of AveSina and Iranmanesh Streets of Kerman. *Abadi*, 17(56), 76-83.
- Benevolo, L. (1974). *Storia dell'Architettura Moderna* (S. Bavar, Trans.). Tehran: University of Tehran Press.
- Chitgarha, F. (2013). *Qom Urban View Management Strategic Framework*. (Master Thesis in Urbanism). Shahid Beheshti University, Tehran, Iran.
- Cullen, G. (1961). *Townscape*. London: The Architectural Press.
- Délibération du Conseil de Paris. (2016). *Dispositions Générales Applicables au Territoire Couvert Par Le Plan Local d'Urbanisme (PLU) de Paris*. Paris: Mairie de Paris.
- EMCO IRAN Consulting Engineers. (2003). *QOM Structure-Strategic Plan (Step 2)*. Qom: Ministry of Roads and Urban Development.
- *Form Based Zoning Ordinance*. (2004). Retrieved December 10, 2020 from: <http://www.planning.org/conferencecoverage/2004/tuesday/formbased.htm>.
- Ghazvineh, N. (2015). *Sanandaj City Strategic View Management Framework with Special Reference to Visual Identity* (Master Thesis in Urbanism). Shahid Beheshti University, Tehran, Iran.
- Greater London Authority. (2010). *London View Management Framework, Supplementary Planning Guidance*. London: GLA.
- Greater London Authority. (2012). *Revised London View Management Framework*, SPG. London: GLA.
- Greater London Authority. (2015). *Erratum to the 2012 LVMP SPG*. London: GLA.
- Golkar, K. (2003). Az Tavalod ta Bolugh-e Tarrahi Shahri [From Birth to Adulthood Urban Design]. *Soffeh*, 13(36), 8-23.
- Golkar, K. (2007). The Concept of Cityscape/Image. *Abadi*, 16(53), 38-47.
- Golkar, K. (2008). Conceptual Evolution of Urban Visual Environment; From Cosmetic Approach Through to Sustainable Approach. *Environmental Science*, 5, 95-114.
- Loti, P. (2002). *Vers Ispahan* (B. Ketabi, Trans.). Tehran: Sahab Geographic & Drafting Institute.
- Lynch, K. (2008). *The Image of the City* (M. Mozayeni, Trans.). Tehran: University of Tehran.
- Mahmeli Abyaneh, H. (2011). Evaluation of Urban Landscape in Urban Development Plans A Comparative Study on Evolution of Tehran Comprehensive Plans with International Experiences. *Bagh-e Nazar*, 8(17), 95-104.
- Mahmoodi, S. A. (2007). Manzar-e Shahri; Moroori bar Chand Nazariyeh [City Scope; An Overview of Some Theories]. *Abadi*, 16(53), 54-61.
- Mansouri, S. A. (2005). An introduction to Landscape architecture identification. *Bagh-e Nazar*, 1(2), 70-78.
- Mansouri, S. A. (2010). Chisti-e- Manzar-e Shahri [What is a Cityscape?]. *MANZAR*, 2(9), 30-33.
- Nattagh, M., & Mokhles, F. (2019). Comparison of Two Paradigms of the Sacred Landscape in Islamic and Christian City (Case Study: Holy Shrine of Imam Reza in Mashhad and the Duomo Cathedral in Milan). *MANZAR*, 11(48), 14-21.
- Pakzad, J. (2007). The Image of the City; According to Kevin Lynch. *Abadi*, 16(53), 20-25.
- Rashid Yasami, G. (1938). *Rahnamay-e Qom* [Qom Guide]. Qom: Astone Moghadaseh.
- Raskin, E. (1974). *Architecture and People*. Englewood: Aprentice.
- Reading Borough Council. *Station Hill South Planning and Urban Design Brief*. (2010). Reading, PBA.
- The City of Edinburgh Council. (2020). *Edinburgh Design Guidance*. Edinburgh: The City of Edinburgh Council.
- Greater London Authority. (2019). *The London Plan, The Spatial Development Strategy for Greater London*. London: GLA.
- Tranick, R. (1986). *Finding Lost Space -Theories of Urban Design*. New York: Van Nostrand Reinhold.
- APUR (Atelier Parisien D'Urbanisme). (2009). *Hauteur et grand paysage*. Paris. [in French]
- Yadollahi, S. (2014). *Shrine-centered Cities Holy View Management Framework; Case Study: City of Qom* (Bachelor Thesis in Urbanism). Eshragh Institute of Higher Education, Bojnourd, Iran.
- Yadollahi, S., Rastgar, M., Yadollahi, M. & Roshany, P. (2017). *Balad-El-Amin* [Safe City]. The 8th Asian Safe Community Conference. Mashhad, Iran.
- Zekavat, K. (2007). Strategic Framework for Urban Visual Management. *Abadi*, 16(53), 26-37.
- Zekavat, K. (2016). *Dimensions to Create Environment Quality in Urban Design*. Tehran: Azarakhsh.

COPYRIGHTS

Copyright for this article is retained by the authors with publication rights granted to Manzar journal. This is an open access article distributed under the terms and conditions of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>).



HOW TO CITE THIS ARTICLE

Yadollahi, S. & Daneshvari, A. (2023). Strategic View Management Framework of Sacred Cities; Case Study: City of Qom. *MANZAR*, 14(61), 26-43.

DOI: 10.22034/MANZAR.2022.299960.2147

URL: http://www.manzar-sj.com/article_161039_en.html

