Perspective as a Commodity: The Economic Context of Linear Perspective Appearance in Late Safavid Painting

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Abstract
From the mid-Safavid era and with the rise of commercial and cultural exchanges between Iran and West, a major transition in mode of displaying “space” in Persian painting had appeared. Therefore, Persian painters in various methods applied the “Linear Perspective” in Persian painting at that time. The historical origins of this technique stemmed from the European Renaissance. Some theorists have considered economic context as the reason for scientific and cultural Revolution of Renaissance. In this respect, the appearance of this technique in painting is also dependent on the initial stages of development of the capitalistic mode of production. The purpose of this paper is to study the application of this technique in the late Safavid painting in relation to the economic context of that period. The findings of this study show that linear perspective have been applied incompletely and regionally in late Safavid paintings and Iranian painters did not conduct a serious determination for accurate and comprehensive application of this technique in their works. Simultaneously, in the economical context, following the centralization of power by Safavid (especially from the reign of Shah Abbas) and the monopolizing of the “economy”, the conditions for the emergence of free class of laborers and independent merchants as requirements of production relations of capitalism were not provided. Hence, the materialistic culture based on this method of production was not developed. Despite the familiarity and the needs of Safavids to the technological goods of Modern West, at that time, “the mode of production” of these goods couldn’t progress in economy of Iran. It shows that the application of linear perspective technique in Persian painting is structurally analogous to the mode of entering and use of these technological goods. Similarly, perspective in Persian painting couldn’t be customized. If perspective in Renaissance painting is a symbol of the capitalism economy at certain stages of its growth, this technique in Persian painting is only a “representation” of that symbol; a symbol that will not refer to its economic context.

Keywords
Economic context, Mode of production, Late Safavid painting, Space, Perspective.

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Introduction and problem statement

The “linear perspective” technique originates from the European Renaissance. This technique appeared in the Persian painting space from the Mid-Safavid era in various ways. The Persian painting space could not accept this technique structurally. Originally, the Persian painting style was not based on a single point of view for representing the objects; therefore, one could speak of confronting the “other” in applying this technique in Persian painting: confronting the modern west and its visual tradition. The Persian painting style was unlike the others (such as music, performing arts, verbal arts, etc.); thus, the acceptance and employment of this technique [perspective] in Persian painting can be considered as the first signs of confronting the modern culture in this era.

The emergence of a scientific, cultural and artistic revolution in European Renaissance is linked to the economic evolution of the era. According to the “homology” method, a correspondence can be identified between the development of economic infrastructure and the scientific, cultural and artistic evolutions. According to this method, the superstructural evolutions are interpreted as the “reflection” of the changes in different modes of production in “ultimate determination”. In this context, Goldstein called the “linear perspective” as “symbolic,” meaning that it is “a mode of representation specific to capitalism at a particular stage of its development” (Goldstein, 1988: 13).

Adopting this approach and method, this research describes the linear perspective development in the late Safavid painting (1035-1035 AH), and attempts to interpret the specific form of acceptance of this technique in Persian painting in relation to the economic context of that period. Therefore, this paper will investigate the “quantitative”, “homogeneous” and “abstract” concept of “labor” in the capitalist mode of production from the beginning of the Renaissance in Europe, and will delineate the relation of these changes with the evolution of the concept of space in the Renaissance painting according to the theory of “Leonard Goldstein”. Then, the mode of production during Safavid era will be compared to the capitalist mode of production. Finally, the use of linear perspective in the economic context of late Safavid drawings will be explained by analyzing the “space” in that era.

Theoretical basis and historical background

According to many experts, the treatise on “perspective as a symbolic form” by Panofsky (1991) was the most influential text in the analysis of Renaissance perspective. Since the publication of this treatise, it has so far been at the center of the controversy about the concept of space in Western art. The “symbolic form” is one of the key terms in the philosophy of Ernest Cassirer, a renowned Neo-Kantian philosopher. According to Cassirer, the universe is constituted and understood through these forms. On the other hand, the Hegelian roots of Panofsky’s historiography on perspectives are also quite obvious. According to Panofsky, each period represents its own perspectives, and, consequently, the Renaissance perspective is also a manifestation of the Renaissance worldview. Panofsky’s theory of modern visual space has been the reference for many studies on the historical relation of the emergence of perspective with Renaissance science and culture.

In “The Social and Cultural Roots of Linear Perspective (1988)”, Goldstein criticized Panofsky’s theory with an “idealist” view. This critique also incorporates the roots of Panofsky’s theoretical foundations in Cassirer’s “philosophy of symbolic forms “, as well as the Hegelian approach to history. According to Goldstein, in these theories, “thought relates to nothing but itself” (Goldstein 1988, 67-8). On the other hand, Goldstein studied the conditions of the emergence and continuation of ideas and thoughts in economic relations and production patterns. Goldstein’s affiliation is obviously apparent in the theory of “reflection”. In this theory, the cultural-political superstructure is considered a dialectical reflection of the economic infrastructure.
In this area of thought, many works have been published on the relation of the scientific revolution of the Renaissance and the development of the mode of production. This is important due to the fact that the scientific revolution of the Renaissance required a fundamental change in the concept of “space.”

Little research has been conducted on the role of production modes and the economic formation in the configuration, continuation, and abolishment of artistic styles in Iran. This deficiency is also observed in Persian miniature. This research attempts to take a step forward and introduce a socio-economic research on the history of Persian painting. Moreover, “modernity” is a problem that is repeatedly reproduced in different fields in developing societies including Iran. The encountering of Persian miniature with Renaissance painting and its techniques can be considered as the first encountering of Persian art with new western culture. As a result, discussing this encounter can shed a light on our “artistic modernization”.

Research method and approach

This paper addresses an economic approach in “adopting linear perspective in late Safavid painting”. In other words, it seeks to interpret the specific acceptance form of this technique in Persian painting in the context of economic formulation analysis. The “reflection theory” refers to a reflective relation of the economic infrastructure and cultural and artistic superstructure, while the “homology” method emphasizes on the dialectical and dynamic relationship between superstructure and infrastructure. In this method, productive and economic relations are not considered as the “cause” or the only factor, but as the fundamental factor in the “ultimate determination”. In this method, there is an emphasis on the internal and structural logic of superstructural forms in relation to the economic foundation and the numerous mediations and relative independence of cultural forms (Goldstein, 1988: 136-9). In this paper, the perspective space of Renaissance painting is linked to the initial formation of the capitalist economic periods with conceptual mediations. The transition form of the “linear perspective” from this origin is interpreted through the modes of productive and economic relations.

Economic context of linear perspective emergence in the Renaissance painting

In analyzing the perspectival space in the Renaissance painting, Panofsky mentioned attributes such as rational, infinite, homogeneous, abstract, quantitative, and mathematical. For Panofsky, the rationality of this space is due to its dependence on modern reason. This rationality is based on the distinction and distance between the subject and the object; the distance that did not exist in the ancient Greece and the middle Ages in Europe. This space is infinite; its boundaries are not confined logically, and its straight orthogonal lines that stimulate the illusion of depth can extend to infinity. The final components of this space are abstract points that are created by numerical proportions. Here, the ratios define the lines and volumes in the space. The content of this space, or more precisely, what is created within this space is recognized by the ratio of these points. The homogeneity of this space means that its content does not have a qualitative and substantive difference (Panofsky, 1991: 27-37). Panofsky believed that creation of perspective is similar to the continuity of a particle that follows the mathematical content. In describing Lorenzetti’s Annunciation, Panofsky introduced the painting as the first work in which the orthogonal lines end at a point (infinite distant) with a complete mathematical rationalism. Panofsky stated that in this painting, “… both bodies and intervals – and thus the scope of every movement as well- can be presented numerically, as a number of floor squares.” (Panofsky, 1991: 58). Now, the question is, what are the relations of the characteristics of the perspective in Renaissance space to the modes of production and economic formation during Renaissance?

The field of production in the monetary economy developed unprecedentedly since early Renaissance (Hauser, 1998: 220-223). The rise of monetary...
The economy reflects the development of “exchange value” in the system of commodity production. Exchange-value appears first of all as the quantitative relation, the proportion, use-values of one kind exchange for use-value of another kind (Marx, 2009: 66). The magnitudes of different things only become comparable in quantitative terms when they have turned into a same unit. Therefore, in the system of commodity production, the continuous consumption of use value becomes the appearance of its opposite exchange-value. Also, in return to this exchange, the concrete and qualitative labor becomes the form of manifestation of its opposite abstract human labor (Ibid: 88-86).

When the labor contained in a commodity is only counted qualitatively, with reference to use-value, and when it is a matter of “how” and “what” the labor is, the human labor is reduced to being pure and simple, with reference to exchange-value, and matters quantitatively.

In this process, human labor becomes a comparative, homogeneous and abstract matter. Marx describes this issue as “value-forming substance “ or ”phantom-like objectivity “. The value of commodity is now expressed in terms of innumerable other members of the word of commodities (Ibid: 92). In this context, the use of “money” progresses as a means of detecting these quantities. In fact, the progress of the monetary economy and trading through money manifests the intense process of quantification and abstraction of the concept of labor and the significance of exchange value. Just as in money every qualitative difference between commodities is extinguished, so too for is part, as a radical leveler (Ibid: 160).

It is obvious that the developments in the mode of production were not exclusive to this field and resulted to significant social impacts. Mannheim, a distinguished sociologist, attributed these changes to the scientific modern Renaissance revolution in a different approach:

It has often been pointed out that the rationalism of modern natural science has its parallel in the new economic system. With the substitution of a system of commodity production for a subsistence economy, there take place a similar change in the attitude towards things as in the change-over from qualitative to quantitative thinking about nature. Here too quantitative conception of exchange value replace qualitative conception of use value … the result is that as capitalist organization expands, man is increasingly treated as an abstract calculable magnitude, and tend more and more to experience the outside world in terms of these abstract relations. (Mannheim, 1953: 86-87).

Mannheim clearly distinguished between modern capitalism and the modern natural sciences. In addition, it should be mentioned that the emergence of these sciences was impossible without a fundamental change in the concept of space and its transformation into a homogeneous, quantitative and abstract concept. This is clearly evident in the new physics that was founded by Galileo and Newton. Koyre, the famous scientist and philosopher in his “Galileo Studies” considered two major events to be of the utmost importance in the modern scientific revolution. One is the “destruction of the world and the splitting of the sky roof” and the other is the “geometrization of space” (Koyre, 2008: 10).

Goldstein related the quantitative and homogeneous approach of the perspective in the Renaissance painting as a result of the process of quantification and homogenization of “labor” (Goldstein, 1988: 63). From Goldstein’s point of view, the separation of the field of production from the field of consumption or, more precisely, the separation of the producer from the product and the emergence of a vast and broad market in which the equivalence logic of money is dominated have led to creation of the infrastructure for the concept of three dimensional, infinite, and unlimited spaces. The fluidity and relativity of the market evokes the relativity of points and the freedom of movement in the infinite space of perspective. Just like money, that is valuable and intriguing in every commodity exchange, the points in perspective are identified in proportion to each other as a numerical value.
Therefore, a homogeny is distinguishable between the “the perspective space” and the “labor” concept. To sum up this section, Goldstein’s theory of social and cultural roots of linear perspective describes that the linear perspective is symbolic; since it is a mode of representation specific to capitalism at a particular stage of its development; for it reflects the beginning of the part of production which will later come to characterize the whole (Goldstein, 1988: 135).

Refusal of capitalism development during Safavid era

Most analysts consider the long period of feudalism in the history of Persian political economy (Vali, 2001: 25). It is worth noting that such a division is essentially formed in relation to the history of European political economy; hence, the researchers focus on giving a theory and a specific tabulation for production practices in Iran. The attempt for “Asian interpret” of such production methods can be understood in this regard. In this interpretation, two distinct components can be distinguished: a dictatorial centralized state characterized by the arbitrary nature of political power; and a stagnant economic structure characterized by the absence of private and ownership and the continuation of self-sufficient peasant populations (Ibid, 27-28).

Navidi’s “Socio-economic Changes in Safavid Iran” (2007) is one of the finest publications about the history of pre-capitalist Iran. The author sought to answer a fundamental question: Why did not the economic and political conditions of Iran provide a context for the emergence of capitalism during Safavid period? In his analysis, free laborers and independent traders with significant capitals are considered as two fundamental components in formation of capitalism (Navidi, 2007: 199).

In Navidi’s point of view, a shift from a pre-capitalist mode of production to another is witnessed in Safavid era. In this period, the dependency of the peasants to the village intensified due to land ownership issues, and no class of free workers could be established (Ibid, 209-204). On the other hand, the merchants were limited politically and economically by the Shah and his agents at that time. Having reviewed the evidence and studied the documents, the author concluded that:

In that social context and fabric, the possibility of the emergence of a class of free laborers and independent traders who could deal with each other on the basis of a contract in the market greatly diminished. Therefore, during the sixteenth and seventeenth centuries, capitalism could not be costumized in Iran ... One of the main reasons for the refusal of capitalism in the post-Safavid era was the historical expansion of despoticism and the tyranny of the Safavid (211-210).

The Safavid tendency in involving only a small amount of capital into production sector is remarkable (Keivan, 2013: 218). In this situation, imports of goods were highly increased in exchange for the export of raw material (Ibid: 215). In addition, western travelers were surprised by the absence of motivation for production and creativity and their growing interest for new products in Iran at that time. For instance, Chardin, the French traveler, states in his travel report that “… No one can be found in this country that can fix a clock correctly “ (Haeri, 2001: 149). The reports also show the tendency of the Safavid kings in requesting the ordnance and guns while most of them became useless after a while and were used for decorative purposes. In other words, this very important and practical industry was not able to be customized in Iran (Ibid: 147).

On the whole, it should be said that the scholars generally identify a transition to a particular form of “capitalism” in Iran from the constitutional era. Historians and scholars of the social sciences, with different political and religious beliefs, consider this course as an indicator of history that separates capitalism from the pre-capitalist era (Vali, 2001: 15-14);(Fig. 1).

Acceptance of perspective as an imported commodity

The period after Shah Tahmasp’s death in 955 A.H. was coincident with the increasing influence of the European painting on Persian painting (Canby, 1996: 46).
In the last quarter of the 11th century, this influence was magnified in the paintings of Europeanized artists representing the “space”, who were mostly called “Farangisaz”. This process transformed the future of
Persian painting for at least two centuries. Two of the most important pioneers and influential painters of this movement were Aligholibeyk Jabadar Gbadar and Mohammad Zaman. It seems that the spatial logic of Farangisaz (Europeanization) movement has been graphically depicted in the works of these two artists in the late Safavid paintings. Fig. 1 is a painting by Mohammad Zaman. The convergence of the orthogonal architectural lines in the background is astonishing. This painting shows that the painter was familiar with the technique of linear perspective and its application. However, this point does not match the vanishing point of the cypress tree row in the back, and the vanishing point of floor mosaics in the front. Despite the existence of a one-point perspective in this work, the different parts of this painting follow different vanishing points. This means that “perspective space” is not unanimous and homogenous in this work. Another issue is the broadening of the central scene by the painter that is achieved through elevating the vanishing point of the orthogonal lines of that section. Fig. 2 and Fig. 3 show another painting of Mohammad Zaman. The transformation in the
tradition of displaying the high horizon is evident in this painting. Deep scrutiny in the form of floor mosaics shows the painting depth and the fact that the floor mosaics are determined on the basis of a vertical angle. These mosaics are the same in size regardless of their location. In other words, every vertical mosaics row is replaceable with a horizontal row.

A precise look to this painting (Fig. 2) and the previous one (Fig. 1) reveals a structural similarity in their spatial construction. In the tradition of Persian painting, it is common to narrate a story on the "high
horizon”. Moreover, the floors, tents, canopies, or basins are shown from an angle that represents their shape and details according to an ideal and complete plan. Fig. 4 and 5 illustrate these Persian painting traditions. In Fig. 4, the design of floor mosaics from the vertical angle creates a strange atmosphere. Similarly, Fig. 5 illustrates an example of the “high horizon” depicted in the Persian painting tradition. Such a spatial composition is apparent in most of Aligholibeyk Jabadar’s paintings- a renowned Farangisaz of the time. Fig. 6 is among the official and significant works of Aligholibeyk Jabadar. The spatial construction of this work is similar to that of Mohammed Zaman’s (Fig. 1 & 2). Behind the statue, a landscape is depicted on the basis of aerial perspective. The colors disappear to the horizon and the details in the design of the objects are eliminated gradually. The trees also become smaller in size as they proceed to the horizon in accordance with the rules of perspective while the point of view is changed and became vertical in the previous section. It seems that the carpet under the king’s and the courtiers’ feet is
observed from the above. A precise look to the carpet shows that the size of the flower and the beads of this carpet is equal in its two longitudinal points (the axis upon which the depth is created). Therefore, it can be said that shortening is not created precisely in depth (the front part) of the painting. In addition to the carpet and front scene of the painting, the carpet under the King’s feet does not imply an appropriate depth with the aerial perspective so that it looks sloped!

Fig. 8 and 9 clarify this continuation of this tradition in Persian art to Qajar era. In Fig. 9 Fath Ali Shah sits in front of a landscape drawn by the technique of aerial perspective. The surface on which the figure sits appears sloping, as if it were possible for a king

Fig. 7. “Shah Abbas awaits the people in the parliament”. The second half of the 12th century A.H. Source: Soodavar, 2001: 384.


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to slip from his place!

According to the above analysis, it can be determined that the technique of linear perspective in Persian art was applied accurately and scientifically in the late Safavid era. In the Persian painting of this period, the perspectival space was drawn next to the space that was drawn according to the previous tradition, and this combination did not probably seem “heterogeneous” to painters and viewers of the time. However, the perspectival space is homogeneous and united. In such a space, all bodies and interval are arranged in terms of unitary and fixed objects or as “computable” objects.

Discussion

As aforementioned in this paper, the concept of “labor” was turned into a quantitative, abstract and homogeneous concept with the development of capitalism in the West. Therefore, the emergence of a quantitative, homogeneous and abstract sense of “space” during the Renaissance depended on the changes in the economic conditions. Linear perspective technique requires such an understanding of space; therefore, the emergence and development of linear perspective in the Renaissance painting followed the changes in the modes of production. It was also described that the context for this transition to capitalism in political economy system was not prepared in the late Safavid era.

The analysis of some typical paintings in the late Safavid period also showed that the linear perspective in these works was not rigorous and precise. In fact, in these works, perspectival spaces were placed next to the ancient traditional space in Persian painting. In Persian painting, the point of view changes constantly as a conventional principle. It seems that this principle was the basis of work in applying the linear perspective. This means that a part of the painting was painted according to a specific point of view in linear perspective, and the other parts had other points of view, as if the linear perspective point of view had been added to the other points of view in the painting. However, the linear perspective space is unified, homogeneous and mathematical. In this space, all objects and faces are viewed from a certain point of view. In a distance from the same point of view, their unit size decreases coherently, so that Goldstein compared the unity of the point of view with the individuality and subjectivism of the Renaissance. Evidences suggest that in the late Safavid period in Iran, some paintings followed the rules of the perspective to some extent. At the same time, western painters were working in Iran who were familiar with the correct technique of linear perspective; however, Persian painters avoided the complete applying of this technique. This was a historic demand, implied by the historical, cultural and economic conditions required. What practically applied in the late Safavid painting was the incomplete entrance of a “technique” from the economic and cultural context to another field. According to Goldstein, linear perspective is symbolic since it represents a certain stage of capitalist progress. Now, this “symbol” in Persian painting has lost its original meaning in other fields and has degraded to a “double representation”. This means that the perspective that is the reflection or representation of a particular production mode is reflected again in Persian painting independent of the painter’s or society’s conventional point of view. We have already quoted Chardin, the traveler during Safavid era, about the modern practice of making watches in Iran: “... No one can be found in this country that can fix a clock correctly” (Haeri, 2001: 149). Even the production of ordnance and guns, which guaranteed the survival of the Safavid regime, could not be customized at that period. Other industrial products were also on the list. A structural similarity can be recognized in reproduction of the linear perspective in Persian painting and the method of reproduction of industrial goods - despite their many differences. It seems that in both areas, the “product” has been transferred and no economic and cultural conditions existed to customize the “technique” for production of commodities.
Conclusion

The linear perspective is a “symbol” of political capitalist economy at a certain stage of its development. The Persian painters adopted this “symbol” since the mid-Safavid era and applied it in Persian painting tradition. Evidence suggests that this technique was “defective” and “regional” which is evidently detectable in the paintings of Mohammad Zaman and Aligholibeck Jabadar—the most renowned painters in Farangisaz (Europeanization) movement. Perspective in the works of the mentioned painters did not have a unified and complete mathematical space. It seems that the “perspectival view” was not “customized” and “comprehensive” in these works. This “symbol” has been separated from its economic and cultural context in Persian painting and it was applied in other fields. The political economy of the Safavid era did not provide a context for the development of capitalism, and its subsequent “computable” and “quantitative” culture could not flourish in Iran at that time. This is also evident in importing the technological commodities to Iran at that time. Since the “production method” and “production culture” of this commodity were inconsistent with the conditions of the political economy of the time, the production of these commodities was not customized despite being required. In other words, in both cases, the “product” was only transferred; because, no political economy could customize the “technique” of these products. As for the Perspectival space in Persian painting, we are faced with a “double representation”. In other words, the “space” that originates from quantitative, homogeneous and infinite space, which was previously “represented” in the Renaissance painting, has now been “represented” by Persian painters—without the prevailing concept of space in Safavid era.

Reference list