



# Zhāng Zéduān (张择端), and Qiú Yīng (仇英 - Chóuyīng), Chinese Painting's Representation of Axonometry Projection

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Submitted: August 18, 2025. Revised: January 9, 2026. Accepted: July 14, 2026

## Abstract

Complexity, perception, and understanding of visual elements and principles are key factors influencing aesthetic judgments of any artwork. Artists such as Zhāng Zéduān (张择端), and Qiú Yīng (仇英 - Chóuyīng), both well-known artists, provide an excellent opportunity for analysing their artworks. The aim of this discourse is to provide, using a qualitative method of evaluation, a gauge of visual attributes that influence the complexity of a painting; i.e., compositional arrangement called visual perspective in its two forms of linear perspective and Axonometry projection. This visual complexity of a landscape refers to the level of detail to be represented by using the principle of orthogonal drawings, which influence the aesthetic outcome of an artwork. As a result, this paper offers an overall historical description of the development of axonometry drawing within Chinese traditional landscape painting.

**Keywords:** axonometry drawing; graphic representation; linear perspective; orthogonal projection; parallel drawing

**How to Cite:** Patron, E. C. P. & Arcelles, J. D. E. (2026). Zhāng Zéduān (张择端), and Qiú Yīng (仇英 - Chóuyīng), Chinese Painting's Representation of Axonometry Projection. *Harmonia: Journal of Arts Research and Education*, 26(1), 241-254

## INTRODUCTION

The 18th century was a century of historical development in various areas. Art theories, philosophical aesthetic judgments, and perceptual understanding were investigated more deeply during this period (Pujazon & Elias, 2022). The medieval period of the 'veil of secrecy' gave way to discussion, illustrated science, and understanding of nature in its natural stage. Treatises were not only focused on the practical aspects of science but also on the philosophical discourse to comprehend it. Throughout human history, 'perception' has been lengthily discussed. The East and West have a distinct manner of embracing

and appreciating landscape painting, due to philosophical and cultural standpoints. Landscape painting as defined by the Encyclopaedia Britannica: the depiction of natural scenery in art. Landscape paintings may capture mountains, valleys, bodies of water, fields, forests, and coasts and may or may not include man-made structures as well as people (Blumberg & Naomi, 2016); The development of 'linear perspective' from the Western standpoint has been greatly debated in relation to Chinese painting, some differences can be attributed to both the cultural demands in terms of subject matter and the formal structure of the medium used to express their creativity (Tyler & Chen, 2011, p. 2). In fact, Panofs-

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ky (1927) states that 'linear perspective' is a symbolic form of representation which derived from the larger cultural differences between East and West. Panofsky's theory contends that 'linear perspective' is not just a direct transcription of the visual reality presented to the observer. This is the central idea in the analysis of such cultural differences. In order to proceed and address this issue, it is important to define the concept of the term 'perspective' that is used in Chinese painting (Tyler & Chen, 2011). This paper will offer a survey of the perspective convention in the history of traditional Chinese painting. Traditional Chinese painting Guó Huà - (国画) - "Zhōngguó Huà- 中国画", is similar to calligraphy, which itself is considered to be the highest form of painting, and is executed with a brush made of animal hair dipped in black ink, made from pine soot and animal glue, or coloured ink. The most popular type of media support is paper or silk, but some paintings are executed on walls or lacquer-work; this is one of the oldest continuous traditions in the world (Zhang et al., 2020; Riavis, 2020). The completed artwork may then be mounted on scrolls, which are hung vertically or rolled up horizontally. Alternatively, traditional painters may paint directly onto album sheets, walls, Chinese lacquerware, or wooden folding screens. In simple terms, there are two types of GuóHuà - (国画); the first, known as "Gōngbǐ" - 工笔, which employs a meticulous-style, it may also be described as court-style painting; the second, known as *shuǐ-mò* (水墨, "water and ink") or "Xiěyì" - 写意, freehand-style, is also called ink and brush painting, or "literati painting", and was practiced by amateur scholar artists in general (Pujazon & Elias, 2021, p. 51). Another point to bring into this discourse is the meaning "beauty" in Chinese painting that points to the relevant ideological context which is methodically understood in the traditional painting theory of the 'Six Principles of Chinese Painting' which were established by 'Xiè Hè - (Hsie-Ho - 谢赫), a Chinese historian and painter who lived during the four

dynasties of 'Liu Song' (劉宋, 420-479), the 'Nan' (Southern), 'Qi' (479-502) and the 'Nan Liang' (502- 557). He wrote the 'Six Principles of Chinese Painting' (绘画 六法 - Huìhuà Liùfǎ) (Hu, 2016) in the preface of his book, 'The Record of the Classification of Old Painters' (古画 品录, Gǔhuà Pǐnlù) - (Pujazon & Elias, 2022, p. 53). "Words, images, and meanings" are the three main components of the creative process in Chinese ink painting. In "Chinese Traditional Painting" (Guó Huà - 国画), free-hand ink painting is a significant style. An image does not fill the entire space of the scroll format, which is normally hung vertically or horizontally (Pujazon & Elias, 2022, p. 56). There is a balance between the positive space (image) and the negative space (void, emptiness) which is placed within the rice paper or white silk area. The visual organization-composition in Western art refers to the organizational combination of a variety of ideas and concepts that the artist utilizes to create a work that achieves the intended aesthetic impact. This perception of aesthetic characteristics in relation to composition may differ depending on the artist's background and preferences (Pujazon & Elias, 2022; Wallschlaeger, 1992). Image and void (host and guest) are concepts which derive from the notion of Chinese visual language and describe a reciprocal interaction and relationship between different 'components' depicted inside the painting's composition. These 'principles' characterize a picture (Lancaster, 1952); and these 'principles' were not invented by modern art historians; they were composed centuries ago by native scholars who were intimately familiar with the concept behind the practice of painting, and they have been subscribed to by succeeding generations of artists and critics, withstanding the test of application and time.

These terms also suggest and present an underlying sense of order and dominance as key status in terms of the connectedness and interdependence of all compositional parts. Some may call it a saliency map which refers to the ability

of the artist to measure the spatial support in the image (Dong et al., 2014). Artworks, especially ink paintings from ancient China, in particular, do not “pretend” to be what they are; in fact, they are not. They were intended to deliver a purely iconic reproduction of some absent reality, an interpretation of the artist’s mind and heart toward a specific theme (Pujazon & Elias, 2022). The purity of the representation of artistic imagination, “image-visual”, happens in the blank space on the paper, in the process of replacing characters arbitrarily between continuous lines. Using Chinese painting techniques, the shades of brush and ink lines are used to convey different emotions. Landscape painting, along with paintings of birds and flowers, mountain and water, figures, fish and insects, is one of the most mesmerizing genres of Chinese art, known as Traditional Chinese painting. This form of art focuses on the two most iconic elements of nature, Shān Shuǐ-huà (山水画) ‘Mountain and water’, which together are thought to be equilibrated and harmonious. This type of work dates back to ancient Chinese dynasties and little has evolved through the millennia. Painting is not considered as an independent form of art; it is part of the so called ‘brush works’ which include poetry and calligraphy in one single and distinctive discipline and order of importance, taught and mastered by scholars of this tradition. Generally Chinese paintings, ‘one of the major art forms produced in China over the centuries’ (Silbergeld et al., 2021), are monochrome, where the artist skillfully plays between the strokes, lines, shades, and black and white spaces to convey the form of an object or the study of the space. The artist’s strokes are an amalgamation of creative vision and essence; the artist does not rely on a faithful mimetic of reality; the artist searches through brush movements for a self-interpretation of truth. In fact, many Chinese landscape paintings are not actually based on any existing landscape, but are an imaginary composition of every artist, an abstract inspiration of ideas which are captured in a truly unique man-

ner. The brush, ink, paper, and water are vehicles (Riavis, 2020, p. 192), an extension of the artist’s arm and hand, embodying the creator’s expressive nature. This type of theme is rarely encountered in Western landscape paintings, which were predominantly depictions of religious stories involving interactions among characters in a variety of ecclesiastical interior settings. Typical examples from the 11th century during the Northern Song (北宋) dynasty (960 – 1127) are reproduced. In general, these early Chinese themes offered little scope for the construction of linear perspective from the Western standpoint because trees, rocks, and mountains have no consistent straight lines to be depicted. Linear perspective is a technique that was fully developed only during the Italian Renaissance, although there are instances of its appearance in art since classical antiquity (Lawrence, 2020). Paintings in the West are typically either framed and hung on a wall or painted directly onto the plaster in the form of a fresco. Chinese paintings, on the other hand, often took the form of a scroll that might be as much as 100 feet long by 2-3 feet wide, created to be viewed one section at a time in the manner of reading a book.

This was a very practical medium, being highly compact for transportation and allowing any part of the painting to be viewed without folds or seams. There were two other main forms of scrolls – a narrow hanging scroll in a vertical format used principally for the portraits of Emperors and a large rectangular format used naturally for flowers, fish, or calligraphy.

Chinese artists faced various challenging problems in the construction and depiction of a landscape painting. Perspective depiction was a particular challenge in the form of the long horizontal scroll format. The format of Western painting on a rectangular canvas lent itself to a specific viewpoint which was usually located at the centre of the said format, implying a static vanishing point for the other main receding lines to the picture frame. An artist may render and move this tacit central

point within the limits of the picture frame in order to create a better visual composition; this characteristic enabled European artists to create mesmerizing narratives within Christian art. In contrast, Chinese scroll frames offer a continuous depiction of the scene (landscape). It can be produced without the use of any central or specific vanishing point. The viewer may enter to observe the painting from any particular viewpoint without altering any visual reading result. In principle, an artist may subdivide the scene into various coherent segments or sections depicting different items, such as buildings, mountains, rivers; or activities such as people, or seasons of the year, but yet in a continuous narrative.

Another other key solution employed by Chinese artists is one that seems to have been generally adopted throughout the centuries of practicing landscape painting, and it may be called or known in Western literature as “Chinese perspective”, which is to use a sort of ‘perspective’ that does not employ or avoids any single or multiple vanishing points by showing the receding projection as parallel oblique lines (Tyler & Chen, 2011, p. 4). Some of the earliest known paintings in China are from the tombs of the Eastern Han (東漢) dynasty (25 – 220). Most of these artworks are paintings on the wall of figures engaged in various court activities. These paintings do not possess any shadows or light source to create a sense of space. However, it’s important to mention that some early examples of ‘Chinese perspective’ can be seen, such as evidence of rendering oblique orthographic construction. As a result, as the same source unexpectedly recognizes, ‘Chinese perspective’ may usually be organized based on orthographic projection (also known as ‘isometric’ or ‘axonometry’ perspective) in which the item or buildings are viewed obliquely with the fronts (façade) portrayed in undistorted elevation and the orthogonal sides shown obliquely at two main angles of recession. The angles of these receding oblique lines are typically coherent throughout the scroll, implying a well-organized use of

oblique orthographic projection as a solution to the avoidance of any focal or local vanishing points. Conventionally, Chinese scroll painting is not a sequence of separate scenes, but a continuous, seamless image.

## LITERATURE REVIEW

Chinese traditional painting has a unique artistic symbolic meaning which is hidden in many meaningful forms that a painting may convey. This creative spirit of beauty transcends through the single strokes the artist uses to depict a landscape. The orientation of the artwork is to draw attention to the purity of spirit and the practical significance of real life. An artist may be confronted with several choices in the analysis of a landscape; as the artist wets the brush with black ink to render on paper, triggering the creative process of perception; with the twists and turns of the brush and the thickness of the lines, an artist conveys ideas and the conceived visions. There is a vast literature in the form of books, videos, and journals in the English and Chinese languages regarding Chinese traditional painting, especially on the subject presented, “Axonometry drawing in Chinese painting.” This study adopts a historical approach for its development and comprehension; this discourse broadens and supplies descriptive terminology utilized by Zhāng Zéduān (张择端) and Qiú Yīng (仇英 - Chóuyīng). The focus of this article is to provide an overview of two artworks and visual compositions that have become the most highly regarded examples of ‘axonometry drawing’ depictions in Chinese art. The authors also hope that this article will serve as a reference point for both artists’ contributions to the history of art from China.

## OBJECTIVE

The aim of this overview is to take a critical look at the use of geometric perspective in Chinese art through the works of Zhāng Zéduān (张择端), and Qiú

Yīng (仇英 - Chóuyīng), both accomplished painters. Chinese compositional organization of the space follows well-prescribed principles, a rational solution to the challenge of depicting an open space such as a landscape in the extended scroll format of Chinese rice paper adopted by this culture. Its dominant principle is what is known in Western art as oblique orthographic perspective, in which transversal lines are shown as horizontal lines receding to an orthogonal position, forming a uniform oblique drawing. This approach began in the early part of the first century. Many Chinese paintings incorporate a notable degree of convergence among orthogonal projections to represent local regions of a scene, ameliorating the strong illusion of divergence that is perceived in the strict orthographic drawing. This subtle form of oblique convergence drawing seems likely to have been developed in order to compensate for this divergent illusion of space. A corresponding compensation can also be found for the opposite effect in axonometry perspective drawings in the works of *'Along the River During Qingming Festival'* (清明上河图 - Qīngmíng Shànghé Tú) and *'Spring Morning in the Han Palace'* (汉宫春晨 - Hàngōng Chūnchén), which show a paradoxical reduction in the perceived size of distant elements such as the land, buildings, people and other additional objects. The widespread employment of these stylistic choices in Chinese painting is evaluated in the framework of Zhāng Zéduān's (张择端), and Qiú Yīng's (仇英 - Chóuyīng) characterization of axonometry drawing, the literal representation of space and its role in the culture of the imperial courts of the Chinese dynasties.

## METHOD

This article's methodology is a qualitative visual-historical interpretative analysis of the phenomena of both artists depicting a landscape's visual space through axonometry projection. This method places more emphasis on closely examining visual artifacts—such as drawings, paintings,

photos, and images—and placing them in historical and cultural contexts. It also promotes critical reflection and contextual interpretation over quantitative measurement. This approach blends formal analysis (such as material picture, form, gesture, and composition) with historical research to understand how painting techniques and meanings developed, were transmitted, and transformed over time. The method allows visual works to be viewed as culturally embedded evidence, shaped by social settings, symbolic traditions, and epistemological frameworks, while acknowledging the interpretive role of the researcher. This approach was selected because of its descriptive visual style, which conveys the quality of the analysis in accordance with the particular guidelines and conditions under which the Chinese painting is made as well as the detailed conditions seen from the landscape field. A documented example of both artists is also used, which enhances the excitement and challenge of studying the representation of space in Chinese traditional art and its natural aspect of human nature. Using perception and cognition to comprehend visual judgment based on the interpretation of a landscape in order to determine how it functions, this approach establishes a dualistic understanding of the relationship between the mind and the physical world outside the mind. Chinese painting combines a number of elements, including an ancient, rich, lengthy, and intricate system of cultural symbols and meaning that is specific to Eastern philosophical belief systems and artistic traditions. Western aesthetic theory is employed to interpret the gathered visual data, offering a precise definition of the terms used in this paper as well as a good understanding of the seemingly unaltered features of this Chinese traditional art.

## RESULTS AND DISCUSSION

Before proceeding to discuss the works of Zhāng Zéduān's (张择端), and Qiú Yīng's (仇英 - Chóuyīng), titles, *'Along*

the River During Qingming Festival' (清明上河图) and 'Spring Morning in the Han Palace' (汉宫春晨), a clear definition of visual drawing terms should be provided. The Encyclopaedia Britannica offers the following definition with regards to orthogonal (orthographic) projections:

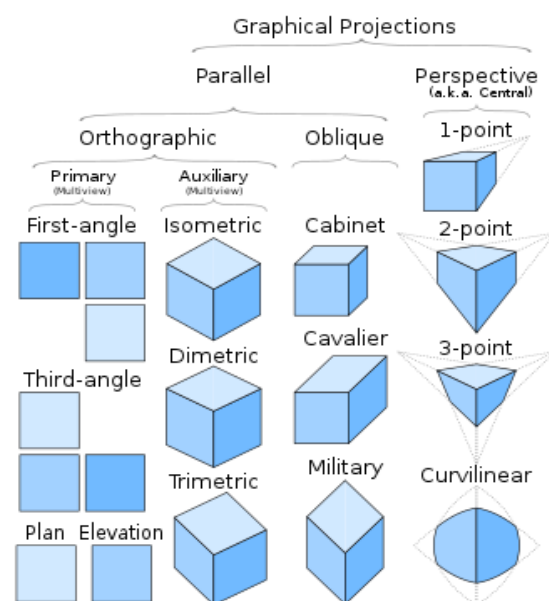
### Orthographic Projection Definition

An 'orthographic' projection, also sometimes known as orthogonal projection, is a way of representing a 3-Dimensional object by using several 2-Dimensional views of the same object (Barr, 2004, p. 233). 'Orthographic' drawings are also known as multiple-views; the term orthographic (The Editors of Encyclopaedia Britannica, 2025) is sometimes reserved specifically for depictions of objects where the axis or plane of the object is parallel with the projection plane; in axonometry projection, the plane or axis of the object is always drawn not parallel to the projection plane. Confusingly, the term "orthographic projection" is also sometimes reserved only for the primary views (The Editors of Encyclopaedia Britannica, 2025). Thus, in German literature, "axonometry projection" might be considered synonymous with "parallel projection"; but in English literature, an "axonometry projection" might be considered synonymous with an "auxiliary view" (versus a "primary view") in a "multiple-view orthographic projection" (Figure 1).

### Axonometry Definition

This is a type of parallel projection (Figure 1), used to create a pictorial drawing of an object, where the object is rotated along one or more of its axes relative to the plane of projection. Axonometry projection does show an image of an object as viewed from a skewed direction in order to reveal more than one side in the same picture. Another explanation of Axonometry, which is a graphical procedure belonging to descriptive geometry that generates a planar image of a three-dimensional object. The term "axonometry" means "to measure along axes" (From the Greek: 'Axon,' meaning

'axis, axie' + 'metria' meaning 'measuring of') and indicates that the dimensions and scaling of the coordinate axes play a crucial role. Axonometry is also a parallel projection of a space onto one picture plane, into which we also project base elements of the coordinate system attached to the object (Vojteková & Blažeková, 2020, p. 43). There are three main types of axonometry projection: *isometric*, *dimetric*, and *trimetric projection*. With these types of projections, the scale of distant features (Objects, items, buildings) is the same as for near features, so such pictures will look distorted, as it is not how our eyes or photography work. This distortion is especially evident if the object to view is mostly composed of rectangular features. Despite this limitation, axonometry projection can be useful for purposes of graphic illustration or architectural or engineering working drawings.



**Figure 1.** Comparison of graphical projections. Created by CMG Lee. Licensed under CC BY-SA 4.0. Source: Wikimedia Commons (CMG Lee, 2023).

Axonometry projection and its geometric cousin, isometric projection, were an invaluable addition to the theory of the linear perspective established by Brunelleschi. American author and architect Claude Fayette Bragdon (1866–1946) offered a compelling description of the aesthe-

tic qualities of isometric perspective:

Isometric perspective, less faithful to appearance, is more faithful to fact; it shows things nearly as they are known to the mind. Parallel lines are really parallel; there is no far and no near, the size of everything remains constant because all things are represented as being the same distance away, and the eye of the spectator is everywhere at once. When we imagine a thing, or strive to visualize it in the mind or memory, we do it in this way, without the distortion of ordinary perspective. Isometric perspective is therefore more intellectual, more archetypal; it more truly renders the mental image – the thing seen by the mind's eye' (Bragdon, 1932, p. 28).

### The Shepard Illusion

One of the most profound visual illusions was discovered not in the 19th but in the late-20th century by Roger Shepard (1929-2022). It is the Shepard tabletop illusion, in which the perspective view of two identical parallelograms as tabletops at different orientations gives a completely different sense of the aspect ratio of the implied rectangles in the two cases (Shepard 1990). It is also the most exciting example of ambiguity leading somehow to an axonometry projection; the tabletop illusion, consisting of different perspective embeddings of two identical parallelograms as tabletops, affords a profound difference in their perceived surface shapes (Tyler, 2011, p. 137).

As mentioned, the parallel construction of Shepard's two tabletops implies that they are both rendered in orthographic 'Chinese perspective,' which has been the dominant form of perspective representation in Chinese painting of landscape particularly (Osborne, 1970).

### Chinese Perspective or so called 'Angle'

Děngjiǎo Tòushì - (登角涂鸦) from the Chinese language is translated as 'equal-angle see-through;' a literal transfiguration borrowing from the bounder of English syntax could be described as 'Axonometry or Isometry projection.' Tòushì - (

涂鸦) shall be translated as 'angle' instead of perspective. This type of projection developed by Chinese artists allowed for the viewing of large painted scrolls, viewed by unfurling the artworks from right to left in sections. It allows the scene to be interpreted as a moving piece, often referred to by art historians as shifting perspectives in Chinese paintings (Figure 2).



**Figure 2.** Zhāng Zéduān (张择端), *Along the River During the Qingming Festival* (清明上河图), Northern Song dynasty, ink and color on silk, 24.8 × 528.7 cm. The Palace Museum, Beijing. Public domain. Source: Wikimedia Commons (Zhāng, ca. 12th century).

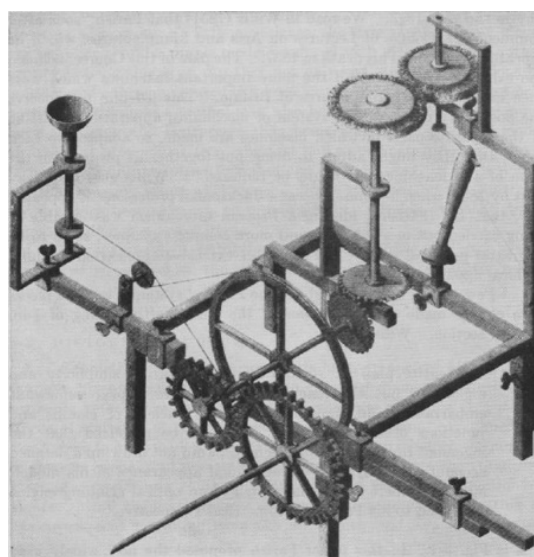
*Along the River During the Qingming Festival* (清明上河图) by Zhāng Zéduān (张择端) is an approximately 5.29-meter-long handscroll held in the collection of the Palace Museum, Beijing. As one of the most renowned works in the history of Chinese painting, it provides a particularly rich basis for examining how perspective is constructed continuously across an extended pictorial space (Tyler & Chen, 2011, p. 13).

The Society of Jesuits, better known as the order of Jesuits, accompanied the first early modern incursions of Europeans into China in the late Ming dynasty (1581-1644) and one of its founding fathers, St. Francis Xavier, died attempting to enter China in 1552. They established themselves firmly in China after many attempts, firstly in Macao in the 1560s and then in Guangdong in 1582 (Rule, 2023; Menabreaz, 2021). Jesuit missionaries based in China brought illustrations of so called axonometry projection (Drawings) back to Europe in the 17th century (Riavis, 2020,

p. 19.3). The exotic graphic depiction was initially used for diamond cutting, ballistics and other technical measurements. Its wider acceptance came in the 19th century, when an English scientist William Farish (1759-1837) using Euclidean geometry, developed isometry projection (Drawing). He was a Jacksonian professor of natural and experimental philosophy at the University of Cambridge from 1813 to 1836; and very little is known of him; however, there are some simple facts. Farish was an influential professor, a founder of the Philosophical Society of the University of Cambridge, and established its publication, the 'Philosophical Transactions' in 1820 (Lawrence, 2019). In the first issue of the 'Philosophical Transactions, Farish published a treatise on his use of a graphical representation system which he called Isometrical Perspective (Farish, 1820). During his lectures on mathematical principles of machinery used in manufacturing industries, Farish often used models to illustrate particular principles (Lawrence, 2019). His models were often especially assembled for these lectures and disassembled for storage afterward. Therefore, in order to explain how these models were to be assembled he had to develop a drawing technique which eventually was called 'Isometrical perspective' (From the Greek 'Isos' meaning 'equal' + 'metria' meaning 'measure'), even though this concept of an isometric projection (drawing) had existed in a rough way for centuries. In 1822, William Farish was regarded as the first to provide rules for drawing, recognizing the need for accurate technical working drawings free of optical distortion. This gave Axonometry and Isometric drawing a mathematical foundation (Figure 3).

In China, painting was an art regulated by precise graphic procedures, consolidated under certain philosophical beliefs and in the method of parallel projections which was handed down from generation to generation. It also did not develop in the same manner as European art, such as from art movement to art movement (Riavis, 2020, p. 19.2). The millennial tradition

of Chinese painting lived through the presence of multiple imperial dynasties that remained in power for variable durations. Through these historical phases, Chinese artists had consolidated and deepened specific themes, techniques and meaning with little change. These differences between Eastern and Western painting were not limited to themes, materials, techniques and ways of setting up the drawings: other characteristics concerned the different cultural backgrounds and graphic principles that determined the perception of the artwork (Riavis, 2020, p. 19.2).



**Figure 3.** William Farish, *Optical-Grinding Engine Model*, 1822, from "On Isometrical Perspective," *Cambridge Philosophical Transactions*, 1. Public domain. Source: Wikimedia Commons (Farish, 1822).

### Chinese Painters

Zhāng Zéduān (张择端 1085–1145), who bears the court name Zhèngdào (正道) was a Chinese painter of the Song dynasty (宋朝 - Sòngcháo, 960–1279). Culturally, this was one of the most brilliant eras in later imperial Chinese history. A time of great social and economic change, the period largely shaped the intellectual and political climate of China. He lived during the transitional period from the Northern Song (北宋 - Běisòng, 960–1127) to the Southern Song (南宋 - Nánisòng, 1127–1279), and was instrumental in the early history of the Chinese landscape art sty-

le known as 'mountain and water,' Shān Shuǐ-huà (山水画). He is well-known for paintings such as 'Along the River During the Qingming Festival,' sometimes also known by the title 'Peace Reigns along the River,' which offers a rare glimpse of the thriving commercial activity of medieval China. This city, possibly Kāifēng (开封), the capital of the Northern Song (北宋-Běisòng, 960–1127), was incredibly well-executed in technical skill, precision, and accuracy (Brennan, 2021). This painting, is interpreted as a painstakingly created visual record of the Northern Song urban life which is nearly one thousand years old, the painting was executed in Gongbi-style articulating architectural elements, the viewer can find shopkeepers tending their stores, teahouses serving customers, camels passing through the city gates, and vessels and small boats sailing along the river, the work was articulated with anthropological precision because to its fine line work and regulated colour.

Although spring season hasn't arrived yet, trees have yet to sprout new green leaves and some boats are moored along the edges of the riverside as the city springs to life.

The painting depicts a variety of garages, shops, watchtowers, moats and the bridge plays host to people from all walks of life, with horses, camels and carts bustling throughout the city. There are around 814 humans, 28 boats, 60 animals, 30 buildings, 20 vehicles, 9 sedan chairs and 170 trees. (Brennan, 2021; Riavis, 2020, p. 19.2). In order to reconcile this visual progression with social storytelling, the horizontal handscroll format promotes a sequential method of viewing; also, it is important to note here that this handscroll painting was mounted on a hard, stiff backing for the purpose of being observed by the viewer. The reading process is from left to right as the scroll is being unfurled, going through the agricultural area to the gated city and then over a bridge known as the "Rainbow Bridge" which marks the centre point of the visual composition. This handscroll has served as the study of

an ancient structure of a wooden bridge of interlocking timber beams woven into a large arc, reminiscent of a natural rainbow formed over the water. It also portrays a commotion of onlookers' gestures over the bridge as a ship is approaching with its mast lowered to pass through. Zhāng Zéduān (张择端) used extraordinary details to convey this moment, visually recording everyday activities (Brennan, 2021). 'Qingming Festival' literally means "Pure Brightness Festival - 清明" which is a public holiday in China, it is also known as 'Tomb Sweeping Day'. It falls on the fifteenth day after the Spring Equinox, a time when family members honour their ancestors by sweeping their graves. This is an ancestral worship practice which has been a major and central part of Chinese civilization, dating back as early as the Tang dynasty (唐代-Táng dài 618-907) a golden age in Chinese history (The Editors of Encyclopaedia Britannica, 2025). This handscroll captures the commercial vigour, economic growth, and bureaucratic structure of the Song dynasty. An idealistic but observational depiction of the city spatial space, conveyed by the intricate arrangement of structural elements and the social activities alongside the riverbanks.

The aerial perspective, similar to the one used by Leonardo Da Vinci, gives a sense of depth and was governed by the 'rules of the three sections' elevated (高度-Gāodù), depth (深度 - Shēndù), and flat (平原-Píngyuán), developed during the Song dynasty (宋朝 - Sòngcháo, 960–1279), to see the landscape as if it has three-horizons (Riavis, 2020). The landscape was set in front of about half the distance between the upper and lower limits of the field of view. The method made it possible to look at the representation both from near and far: placed just below the middle of the painting, the horizon induced the gaze to range from the first floor to infinity. From a historical perspective, this artwork serves as a socio-political category allegory of prosperity, stability, and Confucian order ingrained in daily life, transcending genre representation.

Qiú Yīng (仇英 - Chóuyīng, 1494 – 1552) was a Chinese painter of the Ming dynasty (明代 - MíngDài, 1368-1644) who specialised in the “Gōngbǐ” (工笔) brush technique. He was born to a peasant family in Taicang, Jiangsu Province; he then moved with his family to Sūzhōu (蘇州). In his early days, Qiú Yīng worked as an apprentice lacquer artisan. He painted columns and beams of rich people’s houses, and later gained a reputation after his works were praised by Wén Zhēngmíng (文征明 -1470-1559), a renowned painter and calligrapher. Despite his family’s humble origins, he had natural talent and skill in painting. He later learned the art of painting from the famous artist Zhōu Chén (周臣. c. 1450-1535) and imitated ancient works of the Tang dynasty (唐代 - TángDài, 618-907) and Song dynasty (宋朝, 960-1279), becoming so successful that his copies and the originals were indistinguishable (The Editors of Encyclopaedia Britannica, 2024)

This long handscroll work is a 17th century copy of a 16th century original painting by Qiú Yīng (仇英 - Chóuyīng, 1494 – 1552). It depicts imperial life at its most idyllic, portraying activities of the Han dynasty (漢朝 - Hànráo, 206 BC – AD 220) palace on a spring morning, as a means of historical reconstruction and courtly imagination. Among them is the most famous story of Máo Yánshòu (毛延壽) painting the portrait of Wáng Zhāojūn (王昭君), the concubine of the Emperor Hàn Yuándì (漢元帝 - c. 75 BCE – 32BCE) (The Editors of Encyclopaedia Britannica, 1998). This work, with an intricate composition leading from the right to the left in axonometry view, is rendered with delicate, versatile and exquisite fine brush strokes (outlines) complemented with a range of beautiful ink colours and jewel-like hues. Trees and rocks decorate the garden scenery on the lavish architecture. In addition, there are altogether 115 female and male figures in groups of ladies, maids, eunuchs, painters and children, accompanying this scenery associated with the literati activities, such as calligraphy, enjoying the zit-

her, and playing Chinese chess. Some of them are unhurriedly sweeping the yards, or watering the flowers; others are painting, reading a book, or chasing a butterfly, dancing, or chanting (Zhang, 2017). The two eunuchs at the front of the painting show a typical stance of this group. Their feet are turned outward and their torso is slightly leaning forward. The second eunuch’s leg is forward with his right knee bent in a feminine manner. Their hands are together and they have smirks on their faces. This leads to the assumption that they are aware of the artist’s trickery (Zephier & Eslinger, 2010, p. 11).

The painting, although it has a historical allusion to the Han dynasty, is more of a Ming-era idealization of imperial femininity and ritualized leisure than a true account of the daily activities of the court.

One of the major scenes of this handscroll is a group of ladies watching an artist painting a portrait of a court lady, while the other maids and female figures are watching. This was a common practice during that time as emperor usually depended upon portraits to choose court ladies (Zephier & Eslinger, 2010, p. 11). In order to reinforce hierarchical order and aesthetic constraints, figures are positioned in predetermined poses amid well-kept gardens and architectural enclosures. The architecture of this palace is a typical style throughout this period; the structural design and construction are based on the ‘column-beam frame’.

The colour red has an auspicious meaning for this structure-palace along with the yellow and greenish blues, symbolic for the durability of wood. Furniture during the Ming dynasty (明代 - MíngDài) is considered to be of the highest quality and is adorned with stunning design, precise structure and proper decoration (Zephier & Eslinger, 2010, p. 13). This artwork reflects Ming literati norms projected onto a mythologized past, articulating themes of gendered space (female-oriented space), imperial wealth, and moralized beauty both visually and interpretively.

This type of style has been passed

on from generation to generation, becoming a paradigm of 'belle painting' one of the many types of Chinese traditional ink painting. Finally, this painting has many facets and meanings which describe and explain the position of women within the Ming dynasty (明代- MíngDài) historical period. Their activities, roles and possessions made their status and roles evident.

Theoretically both works exemplify how Gongbi style painting adapts to different ideological, social, and temporal functions within the Chinese visual culture. Zhāng Zéduān (张择端1085-1145) painting is grounded in empirical direct observation, with expanded spatial continuity, dense number of figures (people), and architectural precision. The viewer is positioned as a mobile witness, encountering and interacting within the social strata (merchants, peasants, officials). Historically, this visual narrative and social logic are present in the Northern Song, emphasising governance through economic stability and social order. In contrast, by Qiú Yīng (仇英 - Chóuyīng, 1494 - 1552), inner palace space is spatially enclosed and rhythmically segmented; compositional elegance is the main priority over documentary breadth. Female figures presented are individualized yet subordinated to ornamental harmony, reinforcing hierarchical control rather than social mobility. The painting reflects Ming dynasty literati ideals, projecting moralized femininity, ritual leisure, and aesthetic refinement onto an imagined historical past. The Gongbi style and precision serve not as observational realism but as a symbolic idealization. Although both artists are using similar methodological techniques, the Gongbi style reveals a precise depiction and a flexible visual language. It functions as a proto-ethnographic record and as ideological observational realism shaped by gender, norms, patronage, and historical nostalgia. Both works demonstrate how visual exactitude in Chinese painting does not imply neutrality, but it mediates between cultural values, power structures, and historical consciousness through detailed, orchestrated repre-

sentation.

## CONCLUSION

It seems more likely that the orthographic projection concept was developed originally as a purely geometric solution to the problem of conveying a sense of the depth of the third dimension. Conversely, in European Renaissance painting, large-scale scenes were rendered in accurate or implied convergent perspective, conveying a strong sense of distance despite the use of the convergent convention; Leonardo's 'Last Supper' would be an excellent example. A single central vanishing point helps to construct the picture's setting. In contrast, Chinese artwork relies on a different rule for a compositional setting and this explains the importance of orthogonal projection in Chinese landscape painting. When a building (items, people and others) comes into view, it is depicted in a form of an axonometry projection in order to maintain the same distance and view for the building. In Western European art, the principle of linear perspective, representation of space either interior or exterior, may assume a fixed position of the viewer within the picture frame. Therefore, elements of the principles of linear perspective could not be used in the pictorial Chinese scroll format. Using axonometry projection an artist plays with the absence of a single or multiple vanishing points. This style of painting is not based on the principles of optics, with the focus (Main point of attraction) on one or multiple points. In Chinese painting the focus develops along the narrative of the painting everywhere and nowhere, unlike Western linear perspective. For example, pillars and beams remain strictly parallel, unaffected by any optical distortion. The size and geometry of all man-made objects remain constant, regardless of the position of the viewer. The oblique projection was symbolically rooted in Chinese thought: the definition of a single vanishing point as the basis of the Western linear perspective projection contradicted the Taoist con-

ception, which does not place 'man' as a measure of all things but as a vehicle by which nature can express itself.

## ACKNOWLEDGMENTS

The authors would like to express their deepest gratitude to various academic colleagues and all those who have contributed to enhancing our understanding of Chinese Traditional painting and axonometry drawings, especially to those colleagues who tirelessly provided us with the needed information and feedback. May the findings of this theoretical discussion be beneficial to various audiences, including academics, students, and the general public. Certainly, this paper is far from perfect, and new insights can develop a better understanding of this topic within Chinese traditional painting; we welcome suggestions and feedback to enhance and deepen the exploration of this topic

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