"If you touch it, you find a wall".
Experiencing Painted Illusions between China and Italy (1661-1795)

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1. Preparing the illusionistic encounter

At the end of the XVII century, the Qing emperor Kangxi (on the throne from 1661 to 1722) began to look at European painting stimulated by his personal study of Euclidean geometry[1]. In the last twenty years of the century the emperor acted as the true mediator of the cultural dialogue with the Jesuits in Beijing, and in turn, his figure acquired great popularity in Europe where he was celebrated as a wise and erudite ruler. This was especially visible after 1692, the year of the promulgation of his Edict of Tolerance towards the Christian religion in China[2]. Gottfried Wilhelm Leibniz (1646-1716) who had important epistolary exchanges with the missionaries in Beijing, celebrated the Qing emperor in the preface of his text on the latest news from China, the *Novissima Sinica* (1697). In the second edition of 1699, such a celebration was amplified by the portrait of the emperor on the frontispiece[3]. The philosopher recognized Kangxi's achievement of geometric knowledge, behind which there is God, thus characterizing the emperor as a virtuous and just monarch, even if not converted to the Christian religion[4]. The beginning of Kangxi's engagement with European geometry is to be found in April 1669, when the Belgian Jesuit Father Ferdinand Verbiest (1623-1688) was promoted to director of the Imperial Bureau of Mathematics, and later became the emperor's teacher of geometrical sciences. After Verbiest's death in 1688, other missionaries acted as Kangxi's tutors for the study of Western mathematics, such as his successor, the Belgian Antoine Thomas (1644-1709); and after him, the Italian Father Filippo Grimaldi (1638-1712). Astronomer, diplomat, scholar in the mathematical sciences, Grimaldi moved between different worlds both geographically and intellectually. One of these worlds interests us here particularly, that of perspective. The world of seventeenth-century perspective was not merely about a technique aimed for rendering the third dimension, and to define forms and their spatial location; but about a science that was no longer defined only by traditional mathematics but that, advancing in the study of optics and new geometries, was now enriched with visions, techniques and technologies that changed it into the art of forms of wonder, artifice and doubt. For example, mirrors and lenses were one of Grimaldi's passions, a passion that met the approval of his Chinese patrons. The import of glasses, lenses and mirrors from Europe began towards the middle of the seventeenth century, mainly thanks to the Portuguese trade; and Chinese imitations quickly followed. As early as 1666 in Yangzhou, Jiangsu, the local production of telescopes and eyeglasses is attested[5].

Optics, a complex gateway into the world of images, but above all of imaginaries that can now be sacred or fantastic, was cultivated in Europe within the Society of

Jesus itself[6]. For example, Father Athanasius Kircher (1602-1680), correspondent of Verbiest, with his *Ars Magna Lucis et Umbrae* of 1646, a treatise on the construction of sundials with the description of the phenomena of reflection and refraction, and on the relative behavior of light and shadow, took a step towards the creation of artistic wonders based on optics and artificial perspective. In this text in fact, the ray of light crosses diverse territories, orography, scenography, astronomy, and painting[7]. In Rome, where Kircher spent all his life, the dialogue on optics and perspective also comprised the French Minims of the Order of St. Francis of Paola, settled in the convent of Trinità dei Monti. Among them is an interesting figure, the friar Jean-François Nicèron (1613-1646), a mathematician expert in perspective, and especially optics, who explored the distortion effects of perspectival images. Nicèron was captivated by anamorphosis (from the Greek ἀναμόρφωσις, a derivative of ἀναμορφόω), a deformed perspectival representation that the viewer can see in its original form only from a single point of view; or, in other cases, the image can be "reconstructed" with the help of mirrors of different shapes (catoptric anamorphosis), common among the latter was the cylindrical one (Fig. 1). During the seventeenth century, the fracture between the space of the image and that of the spectator's vision, made anamorphosis a vehicle of symbolic and hidden messages in the context of entertainments characterized by wonder.

In the convent of Trinità dei Monti, Nicèron and the physicist and theologian Emmanuel Maignan (1601-1676), created respectively, in the corridors of the cloister, an anamorphosis representing St. John the Evangelist on the island of Patmo, and a grisaille displaying a palindromic anamorphosis visible from two opposite points of view, in which is a portrait of St. Francis of Paola[8]. Both images, if viewed from the front, look like landscapes. These works, executed in 1642, are the visible result of the techniques described by Nicèron in his *La perspective curieuse, ou magie artificielle des effets mervellieux de l'optique, de la catoptrique et de la dioptrique,* published in Paris in 1638; then re-published in 1646 in Latin with the title *Thaumaturgus opticus seu admiranda*. In 1646 it was also the release of the aforementioned book by Kircher, *Ars Magna Lucis et Umbrae*, and this coincidence is not accidental but indicates that in the mid-seventeenth century,

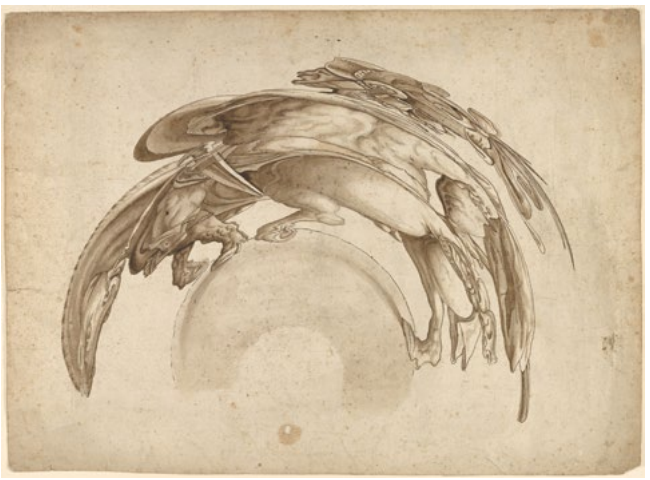

Fig. 1 - Jean François Niceron, *Soldier on Horseback in Catoptric Anamorphosis (after Hendrick Goltzius)*, Pen and brown ink, brush and brown wash, 37x51.2 cm, ca. 1620-40, Purchase, Brooke Russell Astor Bequest, 2013, Metropolitan Museum of Art, New York.

Rome was a space in which the novelties coming from the territory of investigation called "perspective", well symbolized by the anamorphosis of Nicèron, were shared by an international network of scientists, artists and intellectuals[9].
Through the experiments of scholars such as Kircher, who considered the Chinese empire a central theme of a new universal history yet to be written, and of erudite mediators such as Verbiest and Grimaldi, the new languages of perspective had the possibility to arrive in Beijing without tapering translations[10]. Therefore, before a professional painter from Italy set foot in China, Grimaldi and Verbiest became important vehicles of the anamorphic world so fashionable in Rome. The description of an evening reception by Verbiest, in his *Astronomia Europaea sub imperatore Tartaro* (Dillingen 1687), is evidence of such an early dialogue. Verbiest recounts that in 1670 the missionaries invited Emperor Kangxi and his entourage to the garden of the French mission for an optical entertainment organized by Grimaldi. To impress the court, Grimaldi made the same type of anamorphosis traced by Niceron at Trinità dei Monti. This featured four human figures on the four walls of the garden, only visible from a specific point of view. But if the viewer would look at the wall frontally, he would have seen landscapes enriched with mountains, woods and hunts ("montes, silvas, venationes"), the latter being a favorite theme of Manchu rulers, a symbol of their nomadic identity and metaphor of military force[11]. Verbiest does not specify which subjects they represent, whether Chinese or European, mythological or Christian characters, but states that conical, cylindrical and pyramidal mirrors were also used for the vision of the paintings. One can therefore assume that, to increase the wonder, together with the main anamorphosis, Grimaldi also made small catoptric anamorphosis to be enjoyed with mirrors. According to Verbiest, the pictorial display had the desired effect: the court officers were amazed, especially in noticing how the images would not be broken by the irregular walls interrupted by doors and windows. The event ended with the vision of three pictures of painted architecture, composed and donated to the emperor by Ludovico Buglio (1606-1682), another mathematician of the group of Europeans at court. However, the wonder of the Chinese described by the missionaries could lead us astray. In fact, anamorphoses were already known in China as optical games during the Ming Dynasty, usually the catoptric ones. This means that the Chinese wonder described by Verbiest did not arise from forms never seen before, or from coming into contact with unknown techniques and images, but from the scenographic setting, from discovering themselves as new spectators of known images. The experience of vision, and not its object or its medium, was therefore what represented the novelty.
Such a context of vision, shared by individuals belonging to different artistic cultures, takes us away from the symbolic weight of images, but stands as important evidence of the transcultural possibility of sharing the power of visions within the new illusionistic painting worlds. The motto "citra dolum fallimur" (we are deceived without malice, without guilt) that appears on the cartouche that decorates the title page of one of the most famous Italian treatises on perspective, the *Perspectivae libri sex* by Guidobaldo Dal Monte (1545-1607) and which is also repeated on Nicèron's Roman anamorphosis, suggests an experience different from reading a visible meaning represented on the painting surface[12]. In fact, what happened in China within the encounter between the Manchu elites and the Jesuits in front of European anamorphosis, is precisely an exit from the symbol: the images are not universal but the senses, and the latter are no longer accused

of being vectors of illicit images, but become means for the discovery of oneself through the world, and perhaps even of the world. Therefore, one is deceived but without fault on the part of the geometer, the painter, or the mechanism of wonder itself. The lack of malice in experiencing an anamorphosis, painted on a wall in Rome or Beijing, transports the viewer to a territory where light and shadow can no longer be separated, as well as natural light from the divine one, and must be emptied of their "sacred" nature based on specific theological symbologies. Thus, in China "perspective" was not one of the weapons of direct evangelic activity, but a syncretic vehicle for sharing and expanding new visions coming from a diverse array of artistic forms.

In the garden of the Jesuits in Beijing, Kangxi and Grimaldi became together spectators of pictures appearing as a flow of images, and together spectators of themselves looking at such a moving display. At a certain point, this act of double looking at images and at your own act of viewing, requires the understanding of the illusionistic mechanism. For this reason, at the end of the seventeenth century, Kangxi wanted trained European painters capable of showing and teaching the techniques for constructing pictures at court: he wanted a painter, a real one, trained in a workshop, not in a seminary. For Jesuits like Grimaldi such an imperial request represented a good starting point to further expand the space of conquest that European mathematics had already achieved at the Qing court. Following the emperor's request, in 1693 the French Jesuit mathematician Joachim Bouvet (1656-1730) – the last of Kangxi's teachers of mathematics – received the status of imperial envoy to France in order to find skillful individuals to be employed at court. Bouvet's journey brought the first professional painter from Europe to Beijing: an artist from Modena who had been working in Paris for long time, Giovanni Gherardini (1655-1729?). Bouvet arrived in Paris in March 1697, four years after his departure from Guangzhou, and on April 3, he was received by the king who gave him a large sum of money for the Beijing mission. In the following months Bouvet met Gherardini, probably within the Society of Jesus, already close to the painter having entrusted him with the execution of frescoes, such as the *Apotheosis of the Virgin with Saint Ignatius, Francis Xavier, and Aloisio Gonzaga,* in the church of the College of the Order in Nevers, Saint Pierre; and the *Apotheosis of Saint Louis* in the professed house in Paris, today Lycée Charlemagne. Bouvet himself recognized that the Italian enjoyed a great reputation in France and convinced him to undertake the journey to work for the Qing emperor.

2. The First Landing: the Bolognese School in Beijing

Gherardini was a *quadraturista* trained in Bologna at the school of Angelo Michele Colonna (1604-1687). In 1680 he left Bologna for France together with the painter Gioacchino Pizzoli (1651-1733), another of Colonna's pupils; both invited to work in Paris by the Duke of Never Philippe Jules Mancini (1641-1707). Together with the *quadraturista* Agostino Mitelli (1609-1660), Colonna was the most important representative of a technique, that of painted architectures, developed by the artists of the generation before; and especially by his master Girolamo Curti called Dentone (1570-1632), the one who turned *quadratura* into an autonomous pictorial language[13]. "*Quadratura*" indicates the use of perspective in order to transpose on walls and ceilings painted architectures opening the view

to fictitious spaces, and such an illusion was mostly achieved by creating a continuum between real and false architectures (Fig. 2). In commissions of *quadrature*, Gherardini had to construct the false architectures as continuations of the real ones, and in doing this, he had to conceive a coherent illumination by also considering the real light-sources of the space, such as windows and doors. Within this process the coordination with the painter or painters who later would fill the surface with figures and other elements, was crucial. Like in the case of Mitelli, a *quadraturista*, and Colonna, a *figurista*, often the first one made a cartoon, a full-scale drawing, in order to advantage the figure painter's action with a clear idea of how the chiaroscuro and the light sources would be eventually distributed. This type of painting required a solid technical knowhow accompanied by substantial experiences in mural commissions: indeed, it was the result of a complex dialogue between painting techniques (*perspectiva artificialis* or *pingendi*), optics (*perspectiva naturalis*), and procedures to measure inaccessible distances such as in the practice of trigonometry (*perspectiva pratica*). In other words, such an art required an active knowledge for linking the use of perspective in painting to architecture, and geometry in all its different developments. The painting of anamorphosis was of course in the vocabulary of these specialized artists, but their work in Italy was mostly required for creating immersive experiences through spaces where the visual encounter between the false and the real is kinetically and gradually approached, and not like in the case of anamorphosis, where it is characterized by sudden revelations. More importantly, spaces so decorat-

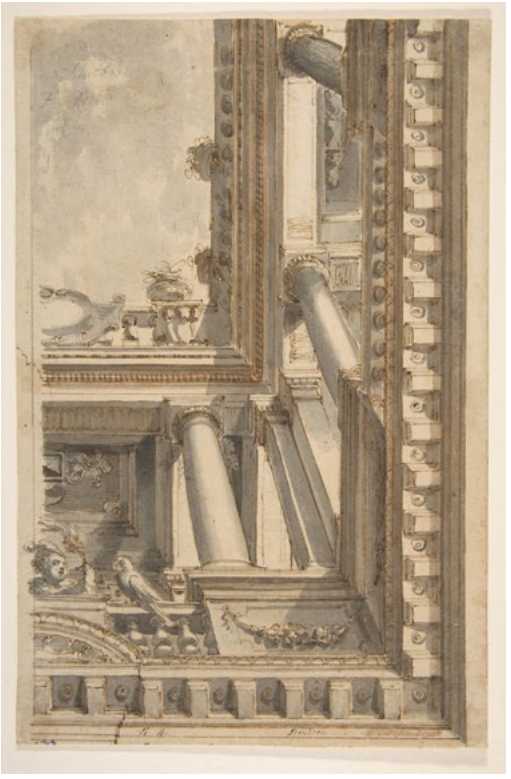

Fig. 2 - Faustino Trebbi, *Design for a trompe l'oeil ceiling with a loggia, after Girolamo Curti, detto Dentone*, Pen and ink and wash, 28.6x18.4 cm, XVII-XIX century. The Elisha Whittelsey Collection, The Elisha Whittelsey Fund, 1952, Metropolitan Museum of Art, New York.

ed, being private buildings, corridors and rooms, entire floors, and even single small vestibules, and secondarily, churches and chapels, were profoundly linked to the practice of constructing theatrical scenes and stage settings. Most painters of *quadrature* received in fact commissions for scenography which unfortunately, giving their ephemeral nature, have rarely survived.
Once in Beijing, the emperor Kangxi did not commission Gherardini *quadrature* but he assigned him seven students. Clearly the emperor wanted a painter from Europe with a professional formation not only to be employed for artistic commissions, but also to train local apprentices in order to store foreign competences. Evidence of such a course is in the appreciation that Kangxi expressed toward Jiao Bingzhen (c. 1650-after 1726), officer in the Astronomical Observatory with Verbiest, and painter. In 1689, after the view of a landscape made by Jiao, the emperor stated: "Jiaobingzhen, who truly understood astronomy and perspective, successfully assimilated Western styles into Chinese painting."[14] Matteo Ripa (1682-1745), a missionary from the Congregation of Propaganda Fide, who arrived in Beijing in 1711, six years after Gherardini had returned to Europe, provides another important evidence when discussing the work of the Modenese's students:

> They draw acceptable perspectives with rulers but with it they depict only buildings and mountains. The landscapes are all made by following the Chinese manner: mountains over mountains and stones over stones, behind them some distant foreshortened mountains. Apart from the distant mountains, all the other mountains are coloured in green and are all made with the tip of the brush so that from a close distance they do not deserve to be viewed but from a greater distance they please the eyes[15].

In front of a Chinese landscape, Ripa feels the need to step back a bit: from a certain distance the whole view is visually composed. It is this movement that interests us here, as it represents a kinetic consciousness that was shared by Chinese and Italians, and that thus composed a common ground for looking at illusionistic paintings in Beijing. Such a consciousness is well attested in Chinese painting, for example in the treatise *Jiezhou xuehua bian* (Jiezhou's Compilation on the Study of Painting) published in 1781, the painter and calligrapher Shen Zongqian (ca 1720-1803) states:

> In case of large scroll which have to be looked at from a distance of more than a dozen paces, the general arrangement it seen at once, so the outline come before the detailed handling of brush and ink"; and before: "All things consist of form and colour, The brush delineates their forms, and the ink should give the colour. But this 'colour' (se) does not refer to greens and reds and the like but to the shades of light and dark and their depth[16].

Apart from teaching, Gherardini also received commissions for imperial portraits, like the two different versions of Kangxi emperor's image, today preserved in Beijing and in Florence; portraits of concubines that have not be traced back yet; and a folding screen preserved at the National Palace Museum in Beijing[17]. Within the French mission, Gherardini was employed by the Jesuits to decorate the newly constructed Northern Church or Bei Tang, completed in December 1703. Although the church is not extant anymore, the paintings are described in a

letter by the French Father Pierre Jartoux (1668-1720) written in Beijing in 1704, and directed to Father Jean de Fontaney (1643-1710) at La Flèche, who had just returned to Europe from the Chinese mission two years before:

> The ceiling is all painted: it is divided into three parts; the middle part represents a dome, all open, of rich architecture. It has marble columns which support a range of arcades on top of which there is a nice balustrade. The columns themselves constitute a finely drawn balustrade with nicely placed vases of flowers. High above among the clouds over a group of angels the Heavenly Father is holding the terrestrial globe in his hands. The Chinese cannot believe that all this has been painted on one plane and cannot be persuaded that the columns are not straight as they seem to be. The light that comes through the arcades and the balustrades is so wisely painted that one can easily be deceived. This painting is by Gherardini, an Italian painter that Father Bouvet took with him when he went to China. The altarpiece is painted too: both sides of it represent the continuation of the architecture of the church in perspective. It was amusing to see the Chinese visit that part of the church which seemed as if it was behind the altar: when they arrived at it they stopped, then stepped back a little, then forward again and put their hands on it to find out that there were really no relief or hollows[18].

This is an important evidence of the fact that Gherardini's training as *quadraturista* was deployed in the Bei Tang where visitors were in front of a typical Bolognese setting: a painted ceiling constituted by the illusion of columns supporting arcades, and on top of this a balustrade, all enriched by a breakthrough (*sfondato*) opening the view over a sky with sacred characters. However, aside from these characters, the angels and God, few elements are inserted, such as the vases of flowers over the balustrade for increasing the illusion. The choice of concentrating on the architectural frame, and not on other elements such as decorations and figures, is what makes this commission Bolognese, the priority is on the perception of space and not on the elements filling it. In addition, we can infer that the ceiling was rectangular, as usually occurred, and thus that Gherardini organized its view from below through multiple vanishing points and not one which would have worked fine for a square space. Then is the altar that according to John Barrow, who saw it at the beginning of the nineteenth century before the church was destroyed, was partly painted as illusionistic piece of architecture, also producing the illusion of a space behind it[19]. Interestingly Barrow also affirms that this piece of painting was on canvas, thus adding another important evidence supporting Gherardini's hands, and training. In fact, in Italian churches, together with wooden panels, canvas was the most used and very inexpensive choice taken by *quadraturisti* for creating illusions around the altar. No less important, Jartoux's letter offers a description of the local viewers' response: it is amusing to see the visitors coming close to the painted altar, stop, step back a little and then forward again to touch the surface: the last sensorial assessment to prove the unexpected immersion in a painting illusion.

3. The Milanese Novelty: Where the Immersive Experience Ends

The reaction of viewers in front of the paintings in the Bei Tang was not a Chinese-only response to illusionistic architectures. The European artistic literature, comprising many civic descriptions about viewers and painted illusions, has many

examples of same reactions in front of images conceived in order to trick the senses. The best evidence worth mentioning here is represented by the response that spectators had in front of paintings made in Portugal by Gherardini's substitute: Giuseppe Castiglione (1688-1766) from Milan, who, in order to be sent to Beijing, had to join the Jesuit Order as lay brother. Castiglione arrived in the Qing empire in 1715 to stay: during his long life he served three emperors, Kangxi, Yongzheng, and Qianlong (1735-1796), and he acquired fame and status. He never went back to Italy, and from his massive corpus, achieved mostly through group commissions, fifty-five paintings were eventually listed in the imperial catalogue of secular paintings, calligraphy, and textiles, the *Shiqu baoji* (Precious Book Box of the Stone Drain). Castiglione was not specifically trained to be a *quadraturista*, but he acquired important working knowledge coming from commissions of false architectures cultivated in Lombardy between the seventeenth and the eighteenth century; direct translation of the Bolognese tradition mentioned above. The first description of Castiglione's painting illusion comes from Portugal, where the painter was waiting to embark for China. There he was asked to decorate the chapel of San Francis Borgia of the Jesuit college in Coimbra:

> While Castiglione was in Portugal from 1709 to 1714, waiting for the opportunity to sail to China, he never ceased to practice his art. Here he did the paintings representing the life of St. Francis Borgia that hung all around the walls of the common Chapel of the College in Coimbra and most of the other paintings in the Chapel except those at the top. There he painted curious perspectives of stairs, and also of foliage that one cannot believe to be painted without [first] having touched them[20].

Again, is the touch: viewers had to put their hands over the wall to be sure that the stairs they see are a painting and not a real architecture. Interestingly, the test of touching followed Castiglione right after his landing in Guangzhou. In fact, while waiting for the imperial authorization to begin his travel to Beijing, he was summoned with other missionaries to the house of the viceroy of Guangdong. For this audience Castiglione brought with him a present for the viceroy:

> The Brother Giuseppe Castiglione brought with him a small canvas which looked like an unpainted panel of chestnut wood. On the canvas were attached some perspectival pictures, the image of a room, a bound assortment of papers, and a pair of glasses; and they all look detached from the panel. He put the canvas in the right place, and when the viceroys' sons came, they tried to take the painted glasses. When they discovered the trick, they call one of their servants and said to him that if he wanted a new pair of glasses, he should take those on the panel. The servant tried but found impossible to detach them from the surface, so everyone laughed[21].

Although here the main subject of vision is only a pair of glasses, the illusion gives a full bodily experience to the unfortunate servants who tries to grab the painted image. This amusing event anticipates an important element of illusionism that Castiglione developed in his translation of Lombard painting in Beijing. This, differently from Gherardini, was about focusing on single subjects and on surfaces' texture, such as the canvas looking like a wooden panel. A similar piece by Filippo Abbiati (1640-1715), the Milanese master whose workshops was probably attended by the young Castiglione, well displays the type of illusion (Fig. 3). Later in Beijing, such a skill served well Castiglione in his adaptation to the Chi-

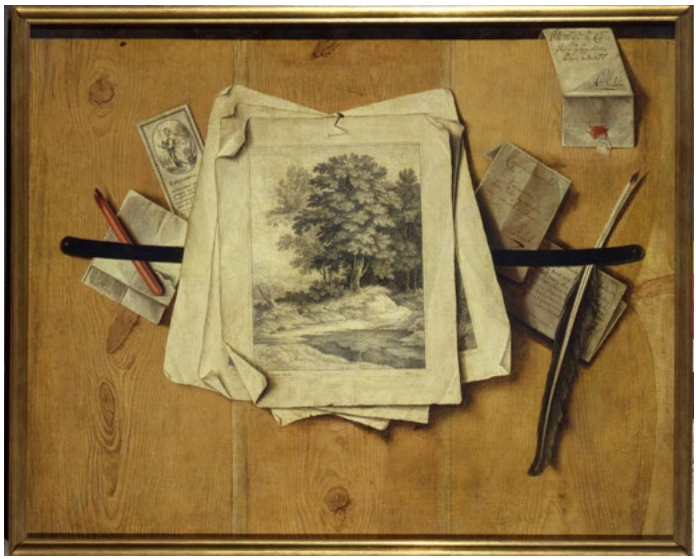

Fig. 3 - Filippo Abbiati, *Trompe-l'oeil con stampe*, oil on canvas, 81x65 cm, 1690-1710. Pinacoteca del Castello Sforzesco, Milano, Copyright Comune di Milano, tutti i diritti riservati (Foto Sergio Anelli, 1997).

nese artistic tradition. In fact, apart from churches, it would have been difficult to paint vast illusions in architectural spaces profoundly different from Europe. In the Chinese imperial buildings, the illumination was obtained by diffused light and not by single windows, the timber structure of buildings is visible and represent the main element to support decorations; and the extensive use of columns does not allow vast mural surfaces. This aspect of Castiglione's work hints to an important difference between the Bolognese tradition and the school developed in Lombardy; and in turn between the type of viewers' response. In Lombardy in fact, the lesson learned from the first Bolognese *quadraturisti* – to focus mostly on the architecture to the extent that an illusionistic plan could be used to construct a real room – developed in the direction of imaginary representations that did not always have stable links to real spaces, and to the solidity of real architectures. In Milan, Castiglione was trained in painting discrete elements that functioned like emblematic trompe l'oeil immersing the spectator in an ephemeral moment of illusion. One may say that the shift was from deceiving to astonishing the viewers, and the above description of Castiglione's canvas proves that Chinese and European could be easily reunited when sharing such a specific visual experience.
Like Gherardini, after having started to serve within the imperial workshops, Castiglione worked for a set of commissions for two of the Jesuit churches in Beijing, the Dong Tang (Eastern Church) or St. Joseph, built in 1721, and in the Nan Tang (Southern Church). In the first, he painted a false cupola following the model proposed by Andrea Pozzo (1642-1709) in the church of Sant'Ignazio in Rome in 1685. In the second, he worked at two canvases depicting the *Emperor Constantine about to win a battle* and *Constantine's triumph*; and two mural paintings on the east and west walls. The two mural paintings were later described in the *Zhuyeting zaji* (竹葉亭雜記, *Miscellaneous Notes of the Bamboo Tower*, published posthumously in 1893) by the scholar Yao Yuanzhi (姚元之, 1773-1852). Here part of his account, about the east wall, translated by Mikinosuke Ishida:

> Within the Nan-t'ang there are two "linear school" pictures drawn by Lang Shih-ning [Castiglione]. They are spread on the two walls, east and west of the parlour, high and large like the walls…If you go east, you will see as if a house exists, and the door seems not yet open. If you lower your head and look out of the window, you will see two dogs playing together on the ground. If you stand again at the foot of the east wall, and look toward the west wall, you will again see the three chambers of the outer building. By the southern window, the sun shadows three tripod-kettles. Three tables are arranged in a row. The gold glitters. On the top of the pillars in the hall, three large mirrors are hung. On the north end of the hall, screens stand; on the east and west, stand two tables on which red brocade covers are spread. On one of them stands a clock which strikes automatically; on the other, an astronomical instrument is placed. Between the two tables are placed two chairs. On the pillar are placed four lamp-basins on which silver-like candles stand. Looking up to the ceiling, you will see the wood carved into flowers. The middle part is raised to look like stamens and pistils. The lower part hangs down as if left upside down. If you look down upon the floor, you will see it so bright like a mirror that you will be able to count all the square tiles. One white stream along the centre of the tiles shows that it is paved with white stones. If you step further in from the hall, there are two stories of the bedroom. The blinds in the doorway are still and it is profoundly quiet. The table in the room, when seen at a distance, is tidied in perfect order so that you will be tempted to enter. If you touch it, you will suddenly find it a wall[22].

Yao describes the illusions of domestic spaces open to the view of visitors. These contain a long list of objects that trick the eye for their truthfulness. From his description it seems that there is no coherent connection between these illusory spaces and the church's spaces. Every single object can trick the viewer's eye, in the same way the pair of glasses appearing on the small canvas presented to the viceroy in Guangzhou did. It is also emblematic that the description by Yao ends, again, with the touch. The touch, as in the other evidence described above, concludes the first and most important part of the visual experience of an illusionistic painting. Another description of the the same paintings is by Zhang Jingyun (張景運), who in his *Qiuping xinyu* (秋坪新語) focuses on what happened after the touch: "As soon as one comes under the picture and touches it, there remains only one fence. It is almost like a fairyland which can be gazed on, but never approached. One is left disappointed for a long time"[23].
After the touch is the disenchantment from discovering that what is under the eyes is not accessible: what pertains to the sense of sight remained constricted there. We may say that both Chinese and European reactions to Castiglione's paintings were initially of wonder which in Europe was meant to prompt a more discerning form of observation. Wonder stimulates intellectual responses like the one that Zhang had, or maybe just a laugh as it happened to the guests of the viceroy in front of Castiglione's canvas. Similarly to the frustration expressed by Zhang, Emanuele Tesauro in his *Filosofia Morale*, describes the mental and physical state of indeterminacy caused by wonder:

> Wonder is when the mind is intensively captured by a new striking thing [object, phenomenon, image] of which it does not know the cause [origin]. Thus the soul, suspended and waiting [to know the cause], is captivated and the body as well stays stunned as if by a sudden rapture, petrified, motionless, wordless.[24]

For Tesauro wonder represents only a moment of suspension within a process of observation that leads the viewer to a rational exploration and does not leave him still with astonishment. Wonder makes viewers of illusionistic architecture ask: "what next?" It seems that both Chinese and Italians reflected on the impossibility of perceiving an image without combining intellectual and physiological-cognitive perceptions. The senses indeed are not sufficient for understanding reality. Being immersed in a painting illusion, recomposing an anamorphosis, walking into a space defined by false architectures, or being tricked by the realism and false three-dimensionality of a single image: it is a world where the physical reality and what is produced by the mind, are looking deformed, yet part of a universe in which everything is in perfect harmony. It is then through imagination that one can discover or recompose the real harmonic nature of what our senses perceive.

One of the mechanisms and poetics of such an action of discovering and recomposing, is the metaphorical process described in 1670 by Tesauro in his *Il Cannocchiale aristotelico* as *cavillazione urbana*, or urban enthymeme, that: "without malice, and facetiously imitates truth or reality but without oppressing it; and what is untruth [or unreal] is imitated so that the truth will shine through as it was behind a veil, so that through what is stated one understand what is not being said»[25].

In literature, but also in the immersive world of false architectures and *trompe-l'œil* , the "veil" (*velo*) divides but also displays together the painted forms that look real, and the real forms. In discovering such a fracture, first spectators establish an equivalence - between the real world and the pictures imitating it - and then realize that the space or the objects viewed are only two-dimensional images painted on a flat surface. From here it is possible to see what elements from the practice of *quadraturismo* were employed by Castiglione at the Qing court. Intelligently Castiglione understood that in Beijing he could represent the "veil" by working on the exact rendering of surfaces. This, together with the geometrical knowledge, was the most important technical feature for illusionistic painting, and gave the painter the possibility to make depictions of the fracture between the real and the painted presented as couples: for example, a painted window close to a real one. In Italy, showing together the real and the false is often visible in many commissions of *quadratura* inside buildings, usually in coupling together real and false windows and doors, but also in garden architecture, in the depictions of plants to mirror real gardens, or of external architectural elements such as wells, and columns (Fig. 4).

Fig. 4 - Illusionistic couple, a real and painted window in the court of Archiginnasio, Bologna.

In his recent study of the Qing poetics of the fictional and the real in literature and in the visual arts, Shang Wei points out how the Qing emperors, enjoyed the visual game of authenticity and falseness displayed together, especially for interior decoration and painting. This trend especially started in the reign of Yongzheng (1723-1735) who began to seriously patronize Castiglione's painting, and developed massively under Qianlong who often made use of the Italian painter's knowledge of *quadratura*. For example, Qianlong commissioned fake antique pieces that through different arrangements were to be displayed on painted consoles. In this case the poetics of deception needed a mini-scenography where the painted consoles and the objects had a meaning only if they are put together[26]. It was a play between the tangible but false pieces and the intangible illusion of the consoles. In this case the term *zaojia* (造假, make-believe, literally "make false") used for different art forms (for example for making artificial flowers) indicates a great range of experiences and reactions also pertaining to illusionistic painting, as, according to different contexts, can mean "counterfeiting, forging, deceiving, disguising, masquerading"[27]. In addition, during the eighteenth century, "*jia*" (假, false) came to indicate an aesthetic discourse based on the concept of substitution. This is visible in artifacts of different materials, for example porcelain imitating natural matters, such as coral, o wood, or manmade objects such as the ones made of precious metals[28].
The porcelain basin with wood grain (Yongzheng reign) from the National Palace Museum in Taipei is one of the best examples of such a mimetic play conceptually and materially connecting different media (Fig. 5).[29]
From Tesauro's veil to *jia*, it is today obvious that Castiglione's adaptation to the Qing poetics of making-believe was structured on his painting skills employed for the pictorial rendering of different surfaces. In one letter dated November 1729, the Jesuit Florentine architect Ferdinando Bonaventura Moggi (1684-?), attests such important aspect when he describes the paintings in the Dong Tang by Castiglione:

> the whole interior of the Church looks as if it were covered with the most beautiful variety of marbles and golden bronzes. Because of the high quality of Chinese varnish and the skill of the Chinese helpers at preparing a smooth foundation these decorations are painted in a realistic way and have the quality of marble [even] if one touches them[30].

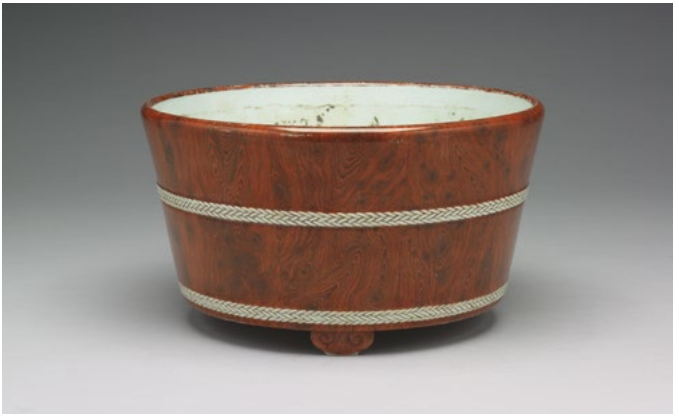

Fig. 5 - Porcelain basin with wood grain, 1723-1735, Taipei. The Collection of National Palace Museum.

The false marble surface is so well made that even through the touch one can be deceived. This description comes from the same period when the ceramic basin was commissioned, and it is evidence of the meeting between Chinese and Italian technical skills, adopted together in the Qing workshops; and most importantly, it marks the beginning of an artistic trajectory containing a meaningful exchange between spectators of illusionistic images. Castiglione's rendering of surfaces is one of the crucial building blocks of such an illusionistic encounter which however had the cultural differences as its main limits. One may say that the immersive experience of illusionistic surfaces ends when culture begins: the two terms, the false and the real are the same, and sometimes even the fractures or sutures between the two may have important points of contact, but what comes after may be comprehended only through the complex terms of local poetics.

What came after, through Chinese selective borrowings, and not a blind acceptance of foreign forms, is still waiting for the serious engagement of scholars. The most important commission displaying the encounter between Chinese aesthetics and the North Italian *quadraturismo*, is the paintings program in the Juanqin zhai (Lodge of Retirement), a section of the Ninshou Gong (Palace of Tranquility and Longevity) in the Forbidden City, where the old emperor Qianlong retired in 1795. Among many illusionistic pictures located in different spaces, the lodge contains a theatre featuring an illusionistic ceiling of a pergola with wisteria, and two mirroring bamboo moon-gates, one real, and one painted[31]. The Juanqin zhai was completed in 1779, after Castiglione had already died, although the commission was probably achieved thanks to planning or ideas left on paper by Castiglione to other imperial artists, especially with regards to the pergola with flowers signaling a typical theme, and skill, of Italian *quadraturisti*. The only Italian painter in Beijing who was still alive, Giuseppe Panzi (1734-1812), was trained as a portraiture artist in the workshop of Pompeo Batoni (1708-1787), and did not have the skills and the experience to achieve illusionistic programs. Therefore, the paintings for this commission were made by local artists trained by Castiglione, for example Wang Youxue (王幼學, active from 1751), who successively developed *their own* skills and taste of *quadraturismo*. In the mid-eighteenth century, their training in such a form happened through commissions of *tongjing hua* (painting that connects scenes), big-size paintings on silk usually pasted on walls, but also on doors and on other architectural elements[32]. Their function of connecting scenes, that meant connecting the image depicted to the surrounding real space is directly hinting to the Bolognese milieu brought to China by Gherardini, while the richness of the characters and elements depicted within the illusionary space, and the attention to textures, points to Castiglione's teaching.

The evidence of the immersive experiences, triggered by the *quadrature* of Gherardini and Castiglione explored in this study, points to a research framework still in its infancy although its boundaries and contents have been known and partially studied for half a century. The cause of such a slow pace deserves few final words as it directly hints to a dominant, and now global, art historical methodology. This can be summarized as the tale of three provincialisms meshed together: Jesuit hagiography applied to history, global monopoly of art-historical studies in the English language, and insularity of the Italian academia with regards to Italian painters who did not work in Italy. For such a triad of provincialisms, Castiglione is first a Jesuit missionary, usually working to display to the Qing court the symbolic-religious value of Western perspective. This argument

is often made by inflating the importance of the Chinese translation of Andrea Pozzo's *Perspectiva pictorum et architectorum*, first published in 1729 by Nian Xiyao (1671-1738) with the help of Castiglione, and entitled *Shixue Jingyun* (*Essence of the Science of Vision*). In 1735 a new and more complete edition appeared under the title *Shixue* (*Science of Vision*)[33]. The translation represents an erudite encounter, but the text had no role in the pictorial dialogues between China and Italy, especially with regards to illusionistic painting. Second, inversely to its emphasis on global exchanges, art history from English-speaking academia mostly explores this topic without the knowledge of primary and secondary literature in the Italian language. This with regards to the Italian painters in China had created accepted generalizations, such as the one that sees the type of perspective conceived during the Renaissance, as an immutable and always symbolic language, and where the crucial regional differences between painting schools are completely unknown. Finally, in the Italian art history of the present time, still exclusively bond to iconographical analysis and biography, the fact that Castiglione or Gherardini are not mentioned in the Italian artistic literature, and that their Chinese paintings look Chinese, relegates them to the role of pseudo artists who escaped in exotic dimensions and hybrid forms; or locates them back to the Jesuit mission in the pointless role of humble servants.

To explore further Italian *quadraturismo* in China, it is obvious that any initial study should trace back and put into dialogue techniques (for example projective geometry applied to the painting of illusionistic architectures in Italy, together with Chinese methods for creating painted illusions); the logic of the works of art (their intention, meaning and interpretation in China, and Italy, up to the present time); and the diverse aesthetic cultures of all actors involved. It is indeed a difficult enterprise as it would require the will for constructive exchanges between art historians with different academic and cultural backgrounds. It would be something similar to what happened in the imperial workshops in eighteenth-century Beijing: a constant unpretentious dialogue to mark the differences in order to paint something that was never seen before.

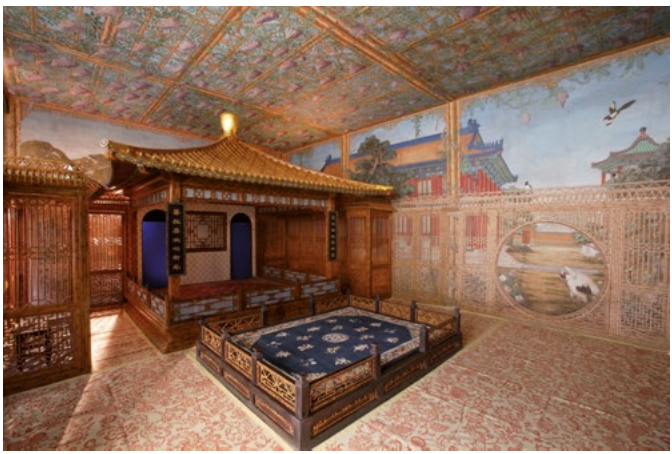

Fig. 6 - Wang Youxue and others based on Giuseppe Castiglione's plan, Theatre in the Juanqin zhai, 1779, Forbidden City, Beijing.

1 On Kangxi's engagement with European geometry see for example Jami 1996: 175-199. See also Martzloff 1977: 125-143.
2 The edict was published in French in 1698 as *Histoire de l'édit de l'empereur de la Chine en faveur de la religion chrestienne, avec un éclaircissement sur les honneurs que les Chinois rendent à Confucius et aux morts par le P. Charles le Gobien*, Paris, Jean Anisson.
3 The image was taken from the woodcut used by Louis le Comte for the frontispiece of his *Nouveaux mémoires sur l'état présent de la Chine*, 1696. On the image of Kangxi in Europe see the fascinating study by Freddolini 2020, 2: 64-80.
4 See the Pars I of Leibniz 1699.
5 See for example Golvers 1999: 545. One of the first texts from Europe on the manufacturing on lenses during the Ming dynasty is the treatise written in Chinese by the Jesuit Adam Schall von Bell, the *Yuanjing Shuo* (远镜说, Explanation of the Telescope, 1629.
6 For a complete view over the Jesuit milieu with regards to mathematics see Romano 1999.
7 Another important text by Kircher (1635) in the fields of astronomy is the *Primitiae Gnomonicae Catoptricae*.
8 The two were joined by another friar, the father Marin Mersenne (1558-1648), master of Nicèron and pupil of René Descartes, who in 1646 edited the Latin edition of Nicèron's work, and after few years published *Optique et Catoptrique* (1651). Maignan wrote *Perspectiva horaria sive de horographia gnomonica tum theoretica tum practica* 4 vols., Rome, 1648, where, in book III, it deals with the execution of anamorphosis on large wall surfaces. On this framework see Romano 2009: 157-180.
9 For the wider cultural context of Kircher's action, see Casciato, Ianniello & Vitale 1986.
10 One of the most important texts on China, that will have a long influence on European culture, is Kircher 1667.
11 Verbiest 1687: 75-79.
12 Cf. Dal Monte 1600.
13 The term "*quadrature*" was used for the first time in 1666 by the Bolognese Antonio Masini (1602-1692) when writing about perspective, as direct mention of the work of Troili 1672; see Masini 1666: 630.
14 See Kobayaski 2006, vol. II: 282, note 3.
15 «Le prospettive le disegnano bastatamente bene con le lor regole, però non fanno se non case e monti. Le case le finiscono bastatamente bene, ed a chi non s'intende di pitture paiono meraviglie. I [paesaggi] li fan tutti allo stile di Cina. Monti sopra monti, e pietre sopra pietre, dietro le quali scappano alcuni monti lontani (sic). Tutti i monti son di colore verde, fuori di quelli che sono in lontananza, e tutti li fanno à punta di pennello, di maniera che di vicino non meritano esser veduti, ma in qualche distanza appagano gl'occhi», Archivio di Propaganda Fide (Rome), Scritture riferite nei congressi – Indie Orientali, Cina Miscellanea 17, February 7, 1711, 33 r. Unless otherwise indicated translations are my own.
16 Tsung-ch'en 1967: 169, 167. For the treatise see Zongqian 1781.
17 For the folding screen see Musillo 2018: 165-169. Also, for the portrait of Kangxi by Gherardini, today at the Uffizi, see Musillo 2020: 167-186.
18 From Father Jartoux to de Fontaney, Beijing, August 20, 1704, see *Lettres Édifiantes et Curieuses, écrites des missions étrangères, Mémoires de la Chine*, Tome 10, Lyon, J. Vernarel, 1819: 3-4.
19 "Ghirrardini [name misspelled] painted a large colonnade in vanishing perspective, which struck them so very forcibly that they concluded he must certainly have dealings with the devil; but, on approaching the canvas and feeling with their hands, In order to be fully convinced that all they saw was on a flat surface, they persisted that nothing could be more unnatural than to represent distances, where there actually neither was, nor could be, any distance". See Barrows 1804: 32.
20 Franco 1714: 57.
21 «Il Fratello Giuseppe Castiglione aveva portato seco una piccola tela, la quale pareva tavola di noce innata, quivi stavano pinture in Prospettiva, una stanza, alcuni fogli di carta legati, et un paio d'Occhiali, il tutto pareva appeso e come distaccato dalla tavola, lo fece mettere in luogo proporzionato, e poi li figli del Vice Ré in punto, anche questi andavano per pigliare l'occhiali, e vedutasi ingannati, fecero chiamare un loro servidore che usano di quelli, e le dissero che se ne voleva un altro paio si pigliasse quelli, che stavano appesi in quella tavola, ma il servidore non poté staccarli, con che tutti si risero di lui.», Archivum Romanum Societatis Iesu (ARSI), Jap. Sin. 176 ff. 380-385, Guangzhou, October 10th, 1715.
22 See Ishida 1960, vol. XIX: 102-103. The expression "linear school pictures" translated "xianfahua" which literally means "painting of the line method". See Zou 2001: 156.
23 "及至其下捫之, 則塊然堵牆而已. 殆如神州瑤嶋可望不可即, 令人悵惘久之", I have used Ishida's translation. He interprets *wang* (望, to gaze) and ji (即, to approach) as "idealized" and "realized". Also, I have changed the last passage translated by Ishida as: "One is left a long time in lamentation", Ishida 1960: 102. For this passage also see Shang Wei's translation, and his important comments: Wei 2015: 224.

24 «La maraviglia è un'attenta affission della mente a qualche nuovo e serioso oggetto; di cui non sapendo la cagione, l'animo sospeso desia di saperla, e in quel breve rapimento ancora il corpo rimane quasi da subita estasi stupidito, impietrato, senza movimento e senza favella.», Tesauro 1673: 555.
25 «senza dolo malo, scherzevolmente imita la verità, ma non l'opprime, e imita la falsità in guisa, che il vero vi traspaia come per un velo, acciocché da quel che si dice, velocemente ti intendi quel che si tace.», Tesauro 1673: 494.
26 Wei 2015: 231-232.
27 *Ivi*., 211.
28 *Ivi*., 212.
29 About these commissions see for example Chen 2020: 126-140.
30 «Tutto l'interiore della Chiesa fa la medesima vista che se fosse di bellissimi marmi misti e bronzi dorati, e per benefizio delle vernici del Paese e perizia de i Cinesi in preparare i fondi lisci, hancora toccandole con mano, paiono vere pietre per essere tutte dipinte al naturale.», to the General Michelangelo Tamburini, ARSI, Jap. Sin. 184, 41 r/v.
31 For this commission see for example Berliner, Chang & Hongqi 2008. I thank Professor Shang Wei for providing me the illustration, and for sharing his view on the topic.
32 Wei 2015: 213.
33 On this translation see the seminal study by Corsi 2002, 201-204; 1999: 103-122.