Chapter 1: Copy and Assimilation of European Botanical Engravings

This first chapter deals with the direct impact of European botanical engraving on the development of flower painting in Mughal India and Safavid Persia. Several books of flowers published between the end of the 16th century and the middle of the 17th century have been identified as possible model for paintings and drawings. Because we do not know with exactitude which books were available in the regions, the only way to find the models was to look in as many herbaria and florilegia as possible and search for correspondence with the corpus. It is a long and arduous process, rendered difficult by the fact that floral forms are often reproduced in several European books without notice of reference. This is, for instance, the case of a *Rosa holosericea* reproduced on a Persian drawing analysed below, published by Adriaen Collaert in 1587, by Mathias de l'Obel in 1591 and by Gerard Jon in 1636.[1] Any of these three publications might be the source of the Persian drawing [BM, 15v]. For this reason, and as a word of caution, the botanical books referenced below as sources are, in fact, one of the possible sources that include the particular design. This analysis does not claim to provide the entire filiation of a design in European botanical books, but merely to highlight its presence in India or Persia, and to analyse the modalities of copy and adaptation.

It is worth mentioning in the introduction of this chapter that botanical prints might have not been the only source of inspiration for the development of naturalistic floral designs. It is the principal assumption that printed books were at the origin of both Indian and Persian productions given the existence of direct and indirect copies of engravings, however other media existed that might have contributed to the diffusion of the motif. In her study on gift exchanges between the VOC and the Asian powers, Cynthia Vallé drew several lists of objects chosen by the representatives of the company to be sent in East-Asia, as well as objects

[1] Adriaen Collaert, *Florilegium Ab Hadriano Collaert Caelatum et a Philipi Gallo Editum. Illustriss. Eccelentissimoque Dno D. Ioanni Medici. Omnis Generis Elegantiarum Admiratori et Patrono, Philip. Gallaeus DD.*. (Antwerp: n.d., 1587); Matthias de l'Obel, *Icones Stirpium, Seu, Plantarum Tam Exoticarum, Quam Indigenarum : In Gratiam Rei Herbariae Studiosorum in Duas Partes Digestae : Cum Septem Linguarum Indicibus, Ad Diuersarum Nationum Vsum*, 2 vols (Antwerp: Ex officina Plantiniana. Apud Viduam et Ioannem Moretum, 1591); John Dunstall, *A Booke of Flowers, Fruicts Beastes Birds and Flies Exactly Drawne. The Third Book with Additions by John Dunstall* (London: Are to be sould by P. Stent, 1661).

directly requested by the rulers.[2] The case of King Narai of Siam (1656-1688) is particularly interesting. At the end of the 1670s, he sent a box of solid gold to be enamelled to the Netherlands, through the ships of the VOC. The box was to be returned to him, alongside several European objects he ordered. On the way back, the ship was declared lost at sea, and the representative of the company was obliged to order replacement parts so as not to offend the sovereign. There followed a first exchange of diplomatic presents between the two parties. In 1682, the ship still not having reached Siam, a new cargo of gifts was sent, including 53 panes decorated with flowers of all kinds and 56 panes with birds.[3] This anecdote constitutes a possible example of the introduction of the naturalistic floral motif in an Asian court on a medium other than paper, and leads to consider the role played by herbaria and florilegia in the development of the naturalistic floral motif in India and Persia as one of the possibilities. While there is no doubt that paintings of flowers were copied on botanical works, these were perhaps not the only vessel.[4] In the absence of tangible comparisons, this question will remain opened.

The first part of the chapter focuses on the chains of transmission of European books from the West to the East. It offers an historical and historiographical overview of the networks existing between the 16th and the 18th century, through which flower forms passed. It also interrogates the reception of European figurative forms, and the creation of new styles of painting such as *farangi sāzi* in Safavid Persia. The second part comes back to the *Florilegium* of Adriaen Collaert and Philip Galle, and especially the copy made in India by Manṣūr, and later in Persia by an anonymous maker. Through these examples and others, the modalities of copy are analysed, as well as the practicalities of reproducing models. Finally, the last part of the chapter offers some reflexions on the longevity of European models and the use of indirect models.

[2] Cynthia Viallé, '"To Capture Their Favor", On Gift-Giving by the VOC', in *Mediating Netherlandish Art and Material Culture in Asia*, ed. Thomas DaCosta Kaufmann and Michael North, Amsterdam Studies in the Dutch Golden Age (Amsterdam: Amsterdam University Press, 2014), 291–320.
[3] Viallé, 303.
[4] This idea was put forward for the introduction of European figurative representations in Safavid Persia through pocket watches and other small objects. Axel Langer, ed., *The Fascination of Persia: The Persian-European Dialogue in Seventeenth-Century Art & Contemporary Art from Tehran* (Zürich: Verlag Scheidegger & Spiess AG, 2013), 202–3.

1. Transmission

In 1959, Basil Grey was the first to link some of the flower designs in an album of Persian drawings with European engravings.[5] He recognised the plants and birds assembled on a folio from *A Booke of Flowers* published by John Dunstall in London in 1661. Years later, in 1972, Robert Skelton linked the martagon lily published in *Le Jardin du Roy* of Pierre Vallet in 1606 with the opening folio of the Small Clive Album.[6] In 1987, Vivian Rich pushed the identification further by linking two additional folios of the Small Clive Album with *Le Jardin du Roy*, a white henbane (*Hyoschyanus albus creticus*) on folio 54b and a honeysuckle (*Caprifolium italicum perfoliatum)* on folio 39a. She also drew connections between the Dārā Shukōh album and engravings published by Carolus Clusius, Dodens and L'Obel, all three edited by Plantin in Antwerp between 1576 and 1591.[7] The comparison of these particular forms were not conclusive, but the author was nonetheless right in looking for other models. From these pioneer studies, we know that Dunstall's book was in Persia and Vallet's was in India during the 17th century. However, some engravings were used in both regions and at different times. This is the case of Theodor de Bry's *Florilegium renovatum et auctum*, copied in Iran in the 17th century [BM 13v] and in India around 1750 [SC 47a]. These examples raise a very simple question: how did they get there? Many ambassies, missions, trade companies and explorers embarked on the journey to Asia with goods and gifts, including printed books. The copies and adaptations of European prints provide a preliminary view of the material transfers between Europe and Asia, but the chains of transmission are unclear, many actors being involved in exchanges of illustrated volumes during the 16th and 17th centuries. Europe was also not a homogeneous cultural entity serving as a conveniently unique starting point. Like countries, languages and cultures, they were multiple.

a. The European starting points

So far, there is no clear pattern of transmission of the printed models to India and Persia, and the presence of botanical books appears to be random and sporadic. The introduction of these volumes relied on numerous factors and various routes, both in Europe and from

[5] Gray, 'An Album of Designs for Persian Textiles'.
[6] Skelton, 'A Decorative Motif in Mughal Art'.
[7] Rich, 'Mughal Floral Painting and Its European Sources'.

Europe. Intra-European distribution was particularly dynamic during the golden centuries of botanical illustration, passing through a dense network of printer-booksellers such as Plantin. Crispan van de Passe's *Hortus floridus*, for example, was published in four languages: Latin, French, Flemish and English, and sold in full volumes and in individual plates.[8] The routes mainly used from the 15th century by Europeans were maritime. The Portuguese officially opened the way in 1488 thanks to Bartholomeo Diaz who passed the Cape of Good Hope, then to Vasco da Gama who inaugurated the *Carreira da Índia* ten years later.[9] The expeditions left from Lisbon, one of the main starting points for major expeditions. In southern Europe, Marseille was also a very active port in the 15th and 16th centuries and traded with the entire Mediterranean. A large Armenian community was settled there. The ports of Italy were numerous, but among the main ones must be mentioned Livorno, Naples, Genoa and of course Venice, whose role in trade with the Ottoman empire and eastern territories is of considerable importance. In northern Europe, Amsterdam and Antwerp occupied a prominent place throughout the 17th century and represented the commercial and intellectual power of the Netherlands. London served as the headquarters of the East India Company, created in 1600 to compete with the Portuguese monopoly, integrated into the Iberian Union until 1640. Lorient, in France, took off after the creation of the *Compagnie des Indes orientales* in 1664. The ships departing from Europe passed along the west coast of Africa, the Cape of Good Hope, then went up to Bandar 'Abbās and the western coast of India. From there they could continue to Java, China and Japan.

Land routes were also well developed from Europe, used for trade and by travellers who wrote about their journey along the way. There was two ways to reach Isfahan. The first crossed Turkey and passed through Yerevan in the north or Baghdad in the south. The second route developed from the 1660s and crossed or skirted the Caspian Sea to reach Moscow and

[8] Christian Coppens and Angela Nuovo, 'Printed Catalogues of Booksellers as a Source for the History of the Book Trade', *JLIS* 9, no. 2 (May 2018): online; Burke, *A Social History of Knowledge*, 176–201; Oury Goldman, 'La Boutique Du Libraire Dans l'économie Des Savoirs Au XVIe Siècle",' *Le Verger* 21, no. Le monde de l'imprimé v. 1470-v. 1680 (2021), http://cornucopia16.com/blog/2020/12/27/oury-goldman-la-boutique-du-libraire-dans-leconomie-des-savoirs-au-xvie-siecle/.

[9] On that question, see Anthony R. Disney, *A History of Portugal and the Portuguese Empire. 2: The Portuguese Empire / A. R. Disney*, 1. publ (Cambridge: Cambridge Univ. Press, 2009), vol. 2, 119-171, part. 157-159.

the port of Narva.[10] The passage between Persia and India seems to have been easier by sea, from Bandar ‘Abbās to Surat.

All these routes, whether sea or land, were strewn with relays through which passed many goods that were likely to be withdrawn or added to shipments. Thefts were not uncommon and were sometimes mentioned in the archives of trading companies.[11] There was probably no direct route for herbaria between Europe, Persia and India, and it is possible that some of them passed through many hands before reaching Indian and Persian workshops.

b. The actors of transfers

In her 1987 paper, Vivian Rich stated that Pierre Vallet's book could have reached Mughal workshops during exchanges conducted by the East India Company, whereas the works published by Plantin were most certainly imported into India through Jesuit missionaries, very active at court from the reign of Akbar.[12] Both hypotheses are interesting, although there is no particular reason for Plantin's works to be more widely circulated through the Jesuits than through trading companies or other ways. The Society of Jesus, installed in India since 1578, played the role of intermediary between the Great Mughal, Akbar, then Jahāngīr, and the viceroy of India. The presence of Jesuits at the court was motivated and justified by the religious debates organised by the emperor, which, in the head of the missionaries, would ideally have led to his conversion to Christianity. They used images extensively in the process of evangelization, in India where they offered to Akbar seven of the eight volumes of Antwerp *Polyglot Bible*, as elsewhere.[13] The Society of Jesus was not limited to a role of intermediary between the Mughal and the Portuguese, they also produced valuable knowledge on the

[10] Rudolph P Matthee, *The Politics of Trade in Safavid Iran: Silk for Silver, 1600-1730* (Cambridge, UK; New York: Cambridge University Press, 2006), 192–202.
[11] Viallé, ‘“To Capture Their Favor”, On Gift-Giving by the VOC’, 302.
[12] Rich, ‘Mughal Floral Painting and Its European Sources’.
[13] We can cite as an example the case of the Jesuit missionaries who settled in Japan in the first half of the 15th century. Very active in the dissemination of evangelization texts, first handwritten then printed at the end of the 1580s, the Jesuits introduced to Japan, through Portuguese merchants, altarpieces painted in oil on wood, as well as engravings. It seems that all this material was destroyed during the persecution of 1614. On the Jesuits in Japan, see Charles Ralph Boxer, *The Christian Century in Japan 1549-1650*, Aspects of Portugal (Manchester: Carcanet, 1993), 188–209. On the present of the Jesuits at the Mughal court and the use of images for evangelisation, see Edward Sir Maclagan, *The Jesuits and the Great Mogul* (London: Oates & Washbourne Ltd., 1932), 222–35; Gauvin Alexander Bailey, ‘The Indian Conquest of Catholic Art. The Mughals, The Jesuits and Imperial Mughal Painting’, *Art Journal* 57, no. 1 (1998): 24–30.

Subcontinent. Several works of natural history were written in Goa in the 16th century, including the first and only book ever printed in Goa's printing house, *Colóquios dos simples e Drogas he cousasmedicinais da Inda* of Garcia Da Orta, published in 1563.[14] Other manuscripts of natural history came out from Goa, including at least one illustrated by a former student of the Jesuit college, Manuel Godinho de Erédia. His *Suma de Árvores e Plantas da Índia intra Ganges*, completed in 1612, contains seventy-two watercolour illustrations, all accompanied by descriptive text.[15] This work didn't seem to leave a restricted circle of readers, but it constituted a marker of Portuguese research in natural history, linked to the trade of spices and colonisers attempts to acclimatize Indian species in Brazil.[16] It is therefore not impossible that the Jesuits served as an intermediary between Europe and India for the transfer of botanical engravings, but only a thorough examination of the Portuguese archives in India will be able to provide more information on this point. Similarly, it is attested that the Capuchins played a major role in the introduction of printing and engravings in Safavid Persia, but nothing is known of their interest in the natural sciences and botany.[17] Not all religious communities were active in enriching the scientific knowledge of European nations. For instance, the Franciscans, established in India from 1510, seemed to have shown little interest in sciences. This is at least what indicates the inventory of the library of the convent of Saint-Antoine de Tana, founded in 1546 and definitively closed during the Maratha conquest in 1738-39. This inventory was studied by Ângela Barreto Xavier who noted that the almost complete absence of natural science texts seems to point to a "relative indifference toward the potential wealth of local experience."[18]

[14] Angela Xavier Barreto and Ines G. Županov, 'Quest for Permanence in the Tropics : Portuguese Bioprospecting in Asia (16th-18th Centuries)', *JOSHO* 57, no. 4 (2014): 522.
[15] Published in a facsimile edition, Manuel Godinho de Eredia, *Suma de árvores e plantas da Índia intra Ganges*, ed. John Everaert, J. Eduardo Mendes Ferrão, and Maria Cândida Liberato (Lisboa: Comissão Nacional para as Comemorações dos Descobrimentos Portugueses, 2001).
[16] On this question, see Xavier Barreto and Županov, 'Quest for Permanence in the Tropics : Portuguese Bioprospecting in Asia (16th-18th Centuries)'.
[17] Francis Richard, 'Un Témoignage Sur Les Débuts de l'imprimerie à Nor-Juła', *Revue Des Études Arméniennes* 14 (1980): 183–84.
[18] Translated from Angela Xavier Barreto, 'Les bibliothèques virtuelles et réelles des Franciscains', in *Missions d'évangélisation et circulation des savoirs: XVIe-XVIIIe siècle*, Collection de la Casa de Velázquez, vol. 120 (Madrid: Casa de Velázquez, 2011), 162.

Many Europeans present in India and Persia from the 16th century were also able to bring flower books with them. The only concrete reference is in the inventory after death of Nicolas Wilford, an English painter sent to Persia by Charles I in 1637 to collect antiquities, carry out surveys of ancient monuments, and incidentally spy on textile factories.[19] He died the 20 January 1638, two days after his arrival in Bandar 'Abbās and before he could carry out his mission. The inventory of his possessions on the ship Jonas mentions the presence of an "*Booke of Flower stampd*."[20] The existence of this book in the painter's belongings indicates that Europeans did indeed travel with flower books, no doubt for documentary purposes. We do not know what happened to Wilford's possessions, but it is probable that this herbarium never reached Isfahan. Other travellers who maintained contact with the court were also likely to have herbaria with them. The German Engelbert Kaempfer was a doctor trained in Prussia and installed in Sweden, who left with the embassy of Charles XI in 1683. After a one-year stay in Ispahan, he joined the V.O.C. and visited India, Siam and Japan. He returned to Europe in 1695 where he published several botanical works.[21] Others were published after his death. During his year in Isfahan, in 1684-1685, he commissioned paintings of the local population, two of which were signed by the painter Jāni Farangī sāz, son of Bahrām-e Sofrekesh who is discussed in chapter 2. Commissioning illustrations was a common practice for European travellers who sometimes had painters accompany them for this purpose, but it was rarer in the 17th century to come into direct contact with local artists: Pietro Della Valle travelled with the painter Giovanni, identified as Jan Lucasz van Hasselt, present at the Safavid court in 1623. Jean Chardin travelled with Grélot and Struys to illustrate his trip.[22] Other known Europeans most likely had botanical works in their belongings: Bernardino Maffei served as Jahāngīr's physician[23], and François Bernier was hired as a physician by Dārā Shukōh,

[19] The mission order issued in 1637 by the East India Company summaries the objectives of the painter: "Thirdly he is to take notice of their manufactures with the Excellencyes of them as Cloth of Gould Silke with its colours and dies." Quoted in Ronald W. Ferrier, 'Charles I and the Antiquities of Persia. The Mission of Nicholas Wilford', *Iran* 8 (1970): 51–56.

[20] Ferrier, 55. Ferrier, 55.

[21] Engelbert Kaempfer is one of the rare European travellers to have been subject of a detailed biography, mainly focused on his stay in Japan but mentioning his stay in Persia and India. The book is richly illustrated with pages from his travel journal, some bearing drawings from his hands, in particular architecture plans. Detlef Heberland, *Engelbert Kaemper (1651-1716): His Life and Travels*, 2nd ed (London: British Library ; Humanities & Social Sciences, 1996).

[22] Pietro Della Valle, *Voyages de Pietro Della Valle, Gentilhomme Romain* (Paris: Barrois, 1645), 145–63; Willem M. Floor, 'Dutch Painters in Iran during the First Half of the Seventeenth Century', *Persica* 8 (1979): 145–63.

[23] Anna Jackson and Amin Jaffer, eds., *Encounters: The Meeting of Asia and Europe, 1500-1800* (London : New York: V & A ; Distributed in North America by Harry N. Abrams, 2004), 292.

then Aurangzeb. It does not seem that either had any relationship with Indian painters, though they certainly gravitated in the close entourage of the court. François Bernier's account does not reflect any interest in the arts, except perhaps for the tents painted with flowers Aurangzeb's *paish khāne*.[24] Even there, he seemed more impressed by the size of the camp and the logistics involved than by the quality of the textiles.

The role played by Armenians in artistic and cultural transfers between West and East should also be considered carefully. Installed in Isfahan by Shāh 'Abbās after a massive deportation in 1604, the community of New Julfa served as an intermediary between Persia and Europe, in particular in the trade of silk. In permanent contact with the major centres of the diaspora, Istanbul, Marseilles, Amsterdam, Venice and Goa, the Armenians constituted a significant commercial power throughout the modern period. In Goa, they cohabited with the Portuguese who saw in them a threat in the same way as the Venetian merchants.[25] Armenian churches in Isfahan were decorated with rich figurative paintings based on European models[26], and the painters responsible were in contact with certain artists of the royal workshop. It is in particular the case of Minas, one of the best-known artists of the Armenian community of Isfahan. His signature is visible on the dome of the Saint-Bethlehem church and several documents attest that Armenian nobles commissioned him for the decoration of their homes, as did Shāh Ṣafi (r. 1629-1642). An archive kept at the Holy Saviour Monastery also states that Riẓā 'Abbāsī was his pupil but that the shāh was not to be informed.[27] The presence of a rich floral decoration inside the churches of New Julfa, in particular the Saint-Saviour

[24] François Bernier, *Un libertin dans l'Inde moghole: les voyages de François Bernier (1656-1669)*, ed. Frédéric Tinguely, Adrien Paschoud, and Charles-Antoine Chamay, Collection Magellane (Paris: Chandeigne, 2008), 373–79.

[25] The viceroy Don Francisco de Gama, on his accession to the throne of India, received the order of Philip II of Spain "to observe the order given to the captain of Hormuz and, without scandal, to prevent Venetians, Armenians and other foreigners to enter India." Translated from Roberto Gulbenkian, 'Les Relations Entre l'Arménie et Le Portugal Du Moyen-Age Au XVIe Siècle', *Revue Des Études Arméniennes* 14 (1980): 212–13.

[26] Sayeh Laporte-Eftekharian, 'Le Rayonnement International Des Gravures Flamandes Du XVIe et XVIIe Siècles : Les Peintures Murales Des Églises Sainte-Bethléem et Saint-Sauveur de La Nouvelle-Djoulfa (Ispahan)' (Ph.D. thesis, Brussels, Université Libre, 2006), https://hal.archives-ouvertes.fr/tel-01386364/; Amy Landau, 'Farangī-Sāzī at Isfahan : The Court Painter Muhammad Zamān, the Armenians of New Julfa and Shāh Sulaymān (1666-1694)' (Ph.D. thesis, Oxford, Somerville College, 2006); Amy Landau, 'European Religious Iconography in Safavid Iran: Decoration and Patrongage of Meydani Betghehem (Bethlehem of the Maydan)', in *Iran and the World in the Safavid Age*, W. Floor, E. Herzig (London: I.B. Tauris Publishers, 2012), 425–46.

[27] Laporte-Eftekharian, 'Le Rayonnement International Des Gravures Flamandes Du XVIe et XVIIe Siècles : Les Peintures Murales Des Églises Sainte-Bethléem et Saint-Sauveur de La Nouvelle-Djoulfa (Ispahan)', vol. 1, 54, vol.2, 356.

cathedral, completed in 1664, leads to consider the Armenians as possible intermediaries in the transfer of herbaria and florilegia to Safavid Persia. The entrance portal of the cathedral shows a rich painted decoration of *gol o bolbol*, mostly composed of Damascus and wild roses, primroses and coloured birds. If these decors do not appear to have originated from European prints, they constitute an example of the spread of a Persian motif outside the Safavid court. The ceramic panels of the cathedral and the other churches of New Julfa, in particular Sainte-Bethlehem built in 1628, show a more evident impact of Persian style and technique, but the presence of these Europeanizing floral decorations leads to question the possible involvement of the Armenian community in the transfers of printed herbaria. A systematic survey of the floral motifs in New Julfa churches remains to be carried out to determine the chronology of the forms which unfold there.

This list of possible actors, already drawn up by several authors who have written on the question, seems ultimately unsatisfactory because of its incompletion, and immediately eliminates the role played by the recipients by inducing a notion of chance, or at least of externalization of the transmission. This is true in many cases, notably that of the Jesuits presenting engravings to Akbar, or even of the ambassador Don Garcia da Silva Figueroa offering oil paintings on canvas to Shāh ʻAbbās. In these two situations, the images were conscientiously chosen by Europeans according to the message they wished to convey or the favours they wished to obtain from the sovereign. However, it would be wrong to consider that all the exchanges of European images took place in a uniform movement from West to East and that the introduction of engravings in the workshops was only the work of third parties. Exchanges of diplomatic gifts between trading companies and sovereigns were often accompanied by orders, the content of which has yet to be determined with greater precision. Jahāngīr's memoirs also reflect the emperor's knowledge of Christian iconography, as well as the search he undertook to acquire new engravings. In 1612, he sent Muqarrab Khān, governor of Surat, to Goa to pick directly from the holds of Portuguese ships and bring back curiosities for the treasure.[28] This event is not isolated and Muqarrab Khān also took

[28] Jahangir and Thackston, *The Jahangirnama*, 133–34.

advantage of the English who repeatedly complained about late or non-payment.[29] An influential trader in constant contact with the Portuguese and the English, he repeatedly demonstrated his knowledge of European products and was particularly interested in clothes – he offered a European hat to the emperor in 1612 – and new technologies. He was also known for his keen interest in horticulture, Jahāngīr twice visiting his garden-orchard in Kairānā in 1619 and 1620. It is therefore highly probable that Muqarrab Khān – and no doubt other Indian dignitaries – were in direct contact with European herbaria and florilegia, either for personal use or as part of commercial transactions.

The phenomenon is undoubtedly similar in Persia, although it is less documented. In addition to travellers such as Engelbert Kaempfer who most certainly possessed herbaria, Persians also had direct access to European productions on the *Meidān-e Shāh*, around which stalls were set up, including at least one Venetian run by Alessandro Scudendoli and in which Italian paintings were sold. The details of the operation of this store are not known, but the supplies must certainly have met a specific demand, quantified by the merchant. Tavernier described with precision the different shops and trades surrounding the great square, starting with bookshops, binding and chest makers grouped together West from the great mosque, merchants selling all kind of things from Venice and Nuremberg next to 'Ali Qāpu's entrance, followed by goldsmiths and jewellers on the other side of the entrance, Armenians merchants next to the bazaar entrance, textiles and garments trade and craft, embroidery and wood works on each side of the Sheikh Lutfullah mosque.[30] Similarly, the presence of European artists in Persia from the reign of Shāh 'Abbās has been documented. Several painters such as Jan van Hasselt and Hendrick Boodewijn von Lockhorst were employed by Shāh 'Abbās I and Shāh Ṣafi, but these examples are in the minority and the activity of all the other painters employed by the trade companies remains to be clarified.[31] The example of the Dutch East India Company (V.O.C.) developed by M. J. Bok is extremely interesting. The V.O.C employed, between 1580 and 1710, professionals in painting, cartography, drawing etc, who arrived in

[29] Syed Ali Nadeem Rezavi, 'An Aristocratic Surgeon of Mughal India : Muraqqab Khān', in *Medieval India*, Researches in the History of India, 1200-1750 1 (Delhi: Oxford University Press, 1992), 156.
[30] Jean-Baptiste Tavernier, *Les Six Voyages de Jean-Baptiste Tavernier Écuyer Baron d'Aubonne, Qu'il a Fait En Turquie, En Perse et Aux Indes...,* (Paris: Clouzier et Barbin, 1676), vol. 1, 395-403.
[31] European painters having worked in Persia between 1617 and 1662 have been subject to a paper by W. Floor. More recently, Marten Jan Bok produced a great synthesis of Dutch painters working for the VOC. He drew the list of almost 100 painters who worked in the Indian Ocean between 1580 and 1710. Floor, 'Dutch Painters in Iran during the First Half of the Seventeenth Century'.

Batavia (Jakarta), the hub of the Company. Once there, they were interviewed and tested by Company representatives who determined their talents and the best way to put them to use. Subsequently, the designated painters were sent to the courts, depending on demand and skills. The engravings and oil paintings presented at the court or sold in the bazaars were first selected by the sellers, but this was also the case of the painters who presented a version of European art filtered through the prism of a nascent market economy. On the other hand, the shāh's decision to commission paintings from European artists, especially for the decoration of palaces such as that of Ashrāf entrusted to Jan van Hasselt reflected a deliberate and direct choice to engage with European art. In the same way, the Flemish painter Giovanni Fiammingo was sent back to Europe by Shāh 'Abbās to acquire more oil paintings. The painter initially left Venice at the same time as Pietro Della Valle. Both travellers met again in Constantinople where Della Valle decided to hire him to depict Persian curiosities. Between March and July 1615, they split up and Della Valle wrote: " J'ai été obligé de me défaire, à cause de leur peu de civilité & des insultes qu'ils m'ont faites".[32] It seems that the painter quickly found employment at court.

It is therefore necessary not to view the importation of European engravings in India and Persia as a linear phenomenon, but rather, and particularly in the 17th century, as a continuous exchange between several heterogeneous poles, in which intermediaries were likely to intervene. Ottoman Turkey, but also Armenian diasporas and communities of merchants such as Arabs and Indians, contributed one way or the other in the uninterrupted flux of goods and ideas. The reception of engravings in Persian and Indian workshops also reflects the complexity of the European impact on Mughal and Safavid arts.

c. Reception

During the reign of Jahāngīr, an intense trade in engravings was organized, in which the ambassadors were the intermediaries. Competition among vendors was fierce, and the emperor's demands were high. In particular, he seemed to have drafted lists transmitted to

[32] Pietro Della Valle, *Voyages de Pietro Della Valle, Gentilhomme Romain. Nouvelle Édition Revue, Corrigée & Augmentée* (Rouen: Robert Machuel, 1745), vol. 3, 110.

the English by Muḥammad Khān, containing, among other things, images of clothing.[33] Thomas Roe, British ambassador in India between 1615 and 1619, complained about the quality of the engravings sent to him in a letter sent to the East India Company's headquarter in London:

> "Your Pictures not all woorth one Penny […]. Here are nothing esteemed ut of the best sorts: good cloth and fine and riche Pictures, they comming out of Italy overland and from Ormus ; soe that they laugh at us for such as wee bring."[34]

The circulation of European engravings in Mughal India and Safavid Persia and the introduction of new models in the workshops provoked different reactions with local painters and led to rapid changes in pictorial practices and iconography. Christian imagery was inserted in imperial portraits, and countless engravings were used as model in the workshops. In 1616, Jahāngīr requested copies to be made of engravings brought by Thomas Roe, then showed some to him for comparison. Roe wrote:

> At night hee sent for mee, being hastie to triumph in his workman, and shewed me 6 Pictures, 5 made by his man, all pasted on one table, so like that I was by candle-light troubled to discerne which was which; I confesse beyond all expectation; yet I shewed yne owne and the differences, which were in arte apparent, but not to be judged by a Common eye But for that at first sight I knew it not, hee was very merry and joyfull and craked like a Northern man."[35]

This amusing anecdote is particularly interesting when confronted to preserved Mughal copies of European prints. An engraving of *the birth of the Virgin Mary* and its Mughal copy were published by M. Beach in 1978, the original by Cornelis Cort after Taddeo Zuccaro, side by side with its copy by an anonymous painter.[36] While the composition of both is indeed similar, noticeable modifications were made by the Indian maker: background elements were added behind the figures, decorative patterns were added to textiles, and the basin in which Mary bathed was changed as well. This type of modifications are systemic of Indian and Persian 17th century works after European prints and can be more or less significant. In *The*

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[33] Ahsan Jan Qaisar, *The Indian Response to European Technology and Culture, (A.D. 1498-1707)* (Delhi ; New York: Oxford University Press, 1982), 87.
[34] Thomas Roe, *The Embassy of Sir Thomas Roe to the Court of the Great Mogul, 1615-1619*, ed. W. Foster (London: Hakluyt Scy, 1899), vol. 1, 97.
[35] Roe, vol. 1, 225.
[36] Milo Cleveland Beach, Stuart Cary Welch, and Glenn D. Lowry, *The Grand Mogul: Imperial Painting in India, 1600-1660* (Williamstown, Mass: Sterling and Francine Clark Art Institute, 1978), 156–57, fig. 54-54A. One of the original engravings is in the Metropolitan Museum, New York (51.101.3285), the copy in the Free Library, Philadelphia (M.93).

birth of Virgin Mary, only a few elements were changed, the interest of the painter being directed to the originality of the composition and its iconography. In other instances, chosen elements were extracted and modified or inserted in new compositions. The example of *Cleopatra* by Marcantonio Raimondi is particularly eloquent.[37] The engraving arrived in Isfahan at the end of the 16th century where it was used by the court painter Riẓā 'Abbāsī to produce a drawing.[38] The figure of Cleopatra was originally depicted lying on a bed, leaning on cushions, her legs crossed, her arms resting above her head. She wore a single drapery covering the lower part of her body, revealing her feet, stomach and chest. Her arms were adorned with two large snake-like ornaments and her loose hair framed her face. Riẓā 'Abbāsī transposed the figure in a very different setting, keeping her posture the same but changing the orientation of the figure, her clothes, her hair, her face and her environment. In short, it would be impossible to associate the Persian drawing to the Egyptian queen, nor to a European engraving without prior knowledge of the model. The engraving occupies here the function of inspiration source, the composition that results from it having nothing to do with the original. The intend was not to reproduce an exogeneous form in any capacity of curiosity, emulation or even training, but to simply use that form, deemed suitable, to produce a composition that fit given aesthetic purposes. Regarding Mughal paintings made after European models, Yael Rice rightly noted that engravings could have been perceived as *ṭarḥ*, exercise to be copied by makers, according to the Persianate emulative paradigm, a principle developed by David Roxburgh.[39] The example of Riẓā''s *Cleopeatra* shows that another, simpler explanation lies behind the large number of copies of European engravings: transposing a shape deeming aesthetically pleasing to painters.

The copy of European engravings, apart from the novelty of religious or mythological iconographies, could also be considered a mean to an end. From the 1580s, large-scale, finely detailed landscapes appeared in Mughal paintings, the origin of which can be traced back to Flemish productions. Atmospheric perspective, a great invention of the Quattrocento, led the

[37] A version of the engraving is in the British Museum, London (H,2.12).
[38] Harvard Museum, Harvard (2011.536). Published in Sheila R. Canby, *The Rebellious Reformer, the Drawings and Paintings of Riza-Yi Abbasi of Isfahan* (London: Azimuth, 1996), 49, fig. 4.
[39] Yael Rice, 'Lines of Perception, European Prints and the Mughal Kitābkhāna', in *Prints in Translation, 1450-1750: Image, Materiality, Space*, ed. Suzanne Kathleen Karr Schmidt and Edward H. Wouk, Visual Culture in Early Modernity 51 (London: Routledge, Taylor & Francis Group, 2017), 202–23; David J Roxburgh, 'Kamal Al-Din Bihzad and Authorship in Persianate Painting', *Muqarnas* 17 (2000): 119–46.

gaze to the back of the painting, well beyond the scenes in the foreground. Ebba Koch noted that these landscapes often consisted of the same elements and combined natural formations with traces of human activity.[40] The mountains were often depicted as large and accentuated massifs breaking the horizon line. The architectures that punctuate the plains and border the rivers are difficult to identify and most often generic. All these elements were transposed into Mughal painting and came to animate illustrative cycles. The use of this European technique offered a depth to outdoor scenes that were otherwise confined to the frame defined by the canon of Persian painting, often delimited by rocky horizon lines or dense vegetation. The transposition of exogeneous architectural forms could also signify that the scene took place in a distant of mystical setting, or bring a touch of exotism to the scene that invited the viewer to look and think further.

The introduction of European figurative engravings in Indian and Persian workshops induced a rapid change in pictorial practice, in some case giving rise to new styles of paintings. The example of *farāngī sāzi* paintings in Safavid Persia is compelling. The term designates a pictorial mode carried by a few painters in the second half of the 17th century, namely Muḥammad Zamān, of which I talk in more details in chapter 2, 'Ali Qūli Jabbadār, who was the topic of a recent monograph[41], Muḥammad Bāqir, whose career is mentioned in chapter 3 in relation to the St Petersburg album, and Jāni, son of Bahram-e Sofrekesh, who signed his work for Engelbert Kaempfer with the epithet.[42] *Farāngī* and *farāngī sāzi*, which can be translated by "in the manner of the Francs [*i.e.* the Europeans]" was one of the seven principles of painting described by the painter chronicler Ṣadeqi.[43] The term also appeared in the preface to the album of Bahrām Mirzā by the historian Dust Muḥammad.[44] The meaning and the pictorial translation of the term are difficult to grasp. It is generally associated with

[40] Ebba Koch, 'Netherlandish Naturalism in Imperial Mughal Painting', *Apollo* 62, no. 465 (November 2000): 29–37.
[41] Negar Habibi, *'Ali Qoli Jebādār et l'occidentalisme safavide: une étude sur les peintures dites farangi sāzi, leurs milieux et commanditaires sous Shāh Soleimān (1666-94)*, Studies in Persian cultural history, Volume 13 (Leiden Boston: Brill, 2018).
[42] Sheila R. Canby, *The Golden Age of Persian Art, 1501 - 1722* (London: British Museum Press, 1999), 82.
[43] Yves Porter, 'From the "Theory of the Two Qalams" to the "Seven Principles of Painting": Theory, Terminology, and Practice in Persian Classical Painting', *Muqarnas* 17 (2000): 109–18.
[44] Wheeler M Thackston, *Album Prefaces and Other Documents on the History of Calligraphers and Painters* (Leiden: Brill, 2001), 12.

paintings inspired by European techniques and/or iconography following the introduction of European figuration in the royal workshop, either through prints or other painted objects. The role of the Armenian community in the development of this style has also been highlighted, though it remains to be precisely defined[45]. The production is circumscribed in time, limited to the reign of Shāh 'Abbās II (r.1642-1666) and Shāh Suleimān (r. 1666-94) and to the royal court. There is indeed no evidence than the paintings by makers aforementioned ever reached a wider audience. *Farāngī sāzi* paintings freely mixed Christian and mythologic iconographies in compositions illustrating the fluid use of European printed material, even more so than in Mughal India. The paintings are also characterised by the volumes given to forms through shading and ingenious colouring, and depart quite strongly from the pictorial style *en vogue* in the first half of the 17th century, carried by painters such as Riẓā 'Abbāsi, followed by Mu'īn Musavvir and Muḥammad Qasim, and which remained the norm during the golden years of the *farangī sazī*.[46]

The impact of European figuration and pictorial modes had a strong impact on Indian and Persian painting, though it is not homogeneous. Atmospheric perspective and complex landscapes integrated the artistic vocabulary early in 17th century Mughal India and remained a permanent feature until the development of the Company School in 19th century colonial centres. On the other hand, the *farāngī sāzi* paintings of Muḥammad Zamān and 'Alī Qulī Jabbādār, heavily dependent on the careful study of European creations, never became the norm of Persian painting. In the same way, the use of European imagery in Indian and Persian seemed to slow down in the 18th century, Christian and mythologic iconographies being only

[45] Landau, 'European Religious Iconography in Safavid Iran: Decoration and Patrongage of Meydani Betghehem (Bethlehem of the Maydan)', 431.

[46] On 17th century Safavid painting, see Abolala Soudavar and Milo Cleveland Beach, *Art of the Persian Courts: Selections from the Art and History Trust Collection* (New York: Rizzoli, 1992); Canby, *The Golden Age of Persian Art, 1501 - 1722*; Sussan Babaie, 'The Sound of the Image / The Image of the Sound : Narrativity in Persian Art of the 17th Century', in *Islamic Art and Architecture 650-1250*, ed. Richard Ettinghausen, Oleg Grabar, and Marilyn Jenkins, 2nd ed, Yale University Press Pelican History of Art (New Haven, CT: Yale University Press, 2001), 143–62; Eleanor Sims, B. I. Marshak, and Ernst J. Grube, *Peerless Images: Persian Painting and Its Sources* (New Haven: Yale University Press, 2002); Assadullah Souren Melikian-Chirvani, *Le Chant Du Monde: L'art de l'Iran Safavide: 1501-1736*, ed. Musée du Louvre (Paris: Somogy ; Musée du Louvre, 2007); A. T. Adamova, *Mediaeval Persian Painting: The Evolution of an Artistic Vision*, Biennial Ehsan Yarshater Lecture Series, no. 3 (New York: Bibliotheca Persica, 2008).

temporally integrated to figurative repertoires in the formative period of the 17th century, before being more or less dropped by makers and patrons in the following century.[47]

Flower paintings constitute a fair illustration of these phenomena throughout the 17th and 18th centuries, especially regarding the copies and adaptations of European prints and botanical imagery in general, but also a sort of exception. As we will see, the impact of European pictorial norms for the representation of flowers and plants got diluted rapidly in the mass of a corpus that developed its own rules, giving birth to a brand new genre of painting.

2. The formation of Mughal floral painting: Collaert and Manṣūr

One of the oldest Indian flower paintings adapted from a European print is a small page depicting several varieties of lilies [G, 104r]. It is signed by Manṣūr *Jahāngīr shāhi* in a small inscription reading: عمل منصور جهانگیر شاهی, a formulation found on another painting.[48] In a recent paper, Ebba Koch dated the production of this painting around 1610.[49] She also linked each individual flowers with an engraved model, not realising that the whole composition was copied from Collaert and Galle *Florilegium*, who themselves copied each flower from different sources widely available at the end of the 16th century.[50] Asok K. Das dated the page even earlier, circa 1605-10.[51] Both authors justified their dating by referring to a signature on the painting of a *turkey*, on which the painter used the title *nādir al-aṣr*, "wonder of the age", a title given by the emperor. The painting itself is not dated but the was introduced to the Mughal court and subsequently described in Jahangīr's memoirs in 1612. According to the two authors, the *lilies* must have been produced before that year since the painter didn't used his title. It is entirely possible, however, the year Manṣūr was awarded with the title is

[47] The example of Mughal imperial iconography is telling. While the official portraits of Jahāngīr and Shāh Jahān overflow with Christian imagery, it entirely disappears from the reign of Aurangzeb, never to be seen again.
[48] "A Goldfinch", National Museum, Delhi (50.14/27). Som Prakash Verma, *Mughal Painter of Floral and Fauna Ustad Mansur* (New Delhi: Abhinav Publ, 1999), 121, pl. XVI.
[49] Koch, 'Jahangir as Francis Bacon's Ideal of the King as an Observer and Investigator of Nature', 306.
[50] Koch, 307.
[51] Asok Kumar Das and Rivka Israel, *Wonders of Nature: Ustad Mansur at the Mughal Court* (Mumbai: Marg Foundation, 2012), 142.

unknown, and none of his paintings in album format are dated, so I will remain cautious regarding the exact date of the *lilies.*

The other argument for an early dating is that Manṣūr must have used the European print to train himself in a new technique before moving on to larger depictions such as the *Tulip*, which is discussed in Chapter 2. This deserves particular attention. The process of reproducing works of older masters was an integral part in the training of professional painters in the Persianate sphere. David Roxburgh, who first developed this theory, also noted that young makers were expected to bring their own spin on the exemplar, hence creating a new piece that was familiar to the audience but inherently new.[52] In the case of European figurative engravings, the models were closely studied by makers who sometimes added colours onto the original, for instance the Mughal painter Abū'l Hasan who added a layer of colours to Raphael Sadler's *Timiditas*, from his series *The Four Vices*.[53]

Without going too far into a game of "spot the difference", there are two main disparities in Manṣūr's painting: the colour and the signature.

Painted flower books were rare in Europe at the time the Collaert's *Florilegium* was published, mainly because it involved manual coloured over the print, both time consuming and pricey. Coloured copies were usually luxury items, reserved for particularly wealthy collectors who wished to magnify and preserve their collection of acclimatized exotic flowers and plants in their garden.[54] The distribution of these painted copies can be considered non-existent, the books only leaving from their home library to be sold to another library. The herbaria and florilegia intended for a wider readership were not painted, as this would have enormously increased their selling price. It is therefore improbable that the copy of Collaert's *Florilegium* used by Manṣūr was coloured, and the choice of shades on the page is most likely the painters. The comparison of the painting with the real flowers shows that Manṣūr made mistakes in colouring, perhaps deliberately, perhaps not. The common white lily (*Lilium candidum*), shown twice on the print should be pure white, but it is light yellow and purple

[52] Roxburgh, 'Kamal Al-Din Bihzad and Authorship in Persianate Painting'.
[53] The painting is now bound in the St Petersburg album, folio 44r. For reproductions and analysis of the painting, see Rice, 'Lines of Perception, European Prints and the Mughal Kitābkhāna', 212, fig. 21.
[54] The British Library notably holds a copy of Basil Besler's Hortus Eystettensis (10.Tab.29) commissioned by the Prince-Bishop of Eichstätt in 1611. The flowers in his garden were first drawn and coloured from nature, then printed and finally painted by hand by Georg Mack in 1614-15, after the death of the patron.

on the page (middle top row, middle right column). Similarly, the flower on the top right resembles a purple Persian lily (*Fritillaria persica*), it should be light purple and not yellow, the orange lily (*Lilium bulbiferum,* sometimes known as *Lilium curentum*), normally shows a beautiful orange and not a bright pink (middle bottom row), and the wild lychnis is usually bright pink, not white and orange.[55] It is possible that Manṣūr was not aware of the natural colour of these flowers, none of the species mentioned being native of India. However, the painting shows a subtle balance of colours: the top line is mostly yellow, the two flowers in the lower corners show a dominance of white, and the four largest flowers, placed in the centre and on each side, are of four different colours, the symmetry of the coloured areas thus bringing out the central flowers.

The addition of Manṣūr's signature in the bottom left corner of the composition puts further distance between the page and the original print, which most likely didn't include any writing at all. The presence of the painter's mark reflects the finished status of the composition, as well as the recognition of its quality. To my knowledge, signed drawings copied from European sources are relatively rare within the 17th century Mughal production, maybe because these drawings were seen as training exercise or as underdrawings destined to be completed. These general compositions, called *ṭarḥ*[56]*,* were normally done by a master before being painted by a less experience maker, a position Manṣūr fulfilled earlier in his career. He contributed to the illustration of a *Bāburnāma* circa 1589-90. An inscription on a depiction of "Two wild Buffs and Two Hog Deer" reads:"طرح كانها عمل منصور"; underdrawing by Kānhā, colour by Manṣūr.[57] Collaert – a name probably unknown in India – could be considered the author of the *ṭarḥ*, Manṣūr reprising his earlier role by adding colour to the composition. The main difference here is that Manṣūr also produced the lines.

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[55] To be noted that the identification of the species depicted was supported by anonymous marginal notes made on a copy of the Florilegium kept in Bibliotheque intrauniversitaire de médecine de Paris and available online. These identifications might not be completely accurate.
https://www.biusante.parisdescartes.fr/histoire/medica/resultats/index.php?do=livre&cote=07663x01

[56] On the terminology and process of painting, see Yves Porter, *Peinture et arts du livre: essai sur la littérature technique indo-persane*, Bibliothèque iranienne 35 (Paris : Louvain, Belgique: Institut français de recherche en Iran ; Diffusion Peters, 1992), 68–72; Yves Porter, 'Models, Sketches, and Pounced Drawings in the Diez Albums: First Steps in the Making of Illustrated Manuscripts', in *The Diez Albums: Contexts and Contents*, ed. Julia Gonnella, Friederike Weis, and Christoph Rauch, Islamic Manuscripts and Books (Leiden Boston: Brill, 2017), 353–79.

[57] Smithsonian Institution, Washington D.C. (F.1954.29). Published in Beach, Welch, and Lowry, *The Grand Mogul*, 139.

How did Manṣūr reproduced Collaert's lilies? In the arts of the book of the Persianate sphere, the most common method to duplicate designs is pouncing.[58] In the case of the *Florilegium* page, a sheet of semi-transparent paper would have been placed on the print and pricked along the contour of each flower. The pounce would then have been placed on the page to be painted by Manṣūr, and ground charcoal would have been lightly tapped against the pounce to reveal dots left on the page. This outline would have guided the painter. Alternatively, the original print might have been pricked directly, without the use of an intermediary sheet. European prints imported in Mughal India were treated with a certain deference, being objects of curiosity as well as commodities. Makers in the *ketābkhāne* trimmed and prepared engravings to be bound in albums and presented to the emperor, it would therefore be improbable that holes had been made in such material. A last alternative would have been to use a stylus made of metal or bone to overline the printed design over the receiving page, on which hollow lines would appear. The engraving being now lost, this is impossible to verify.

3. Adriaen Collaert in Isfahan: Safavid reaction to European botanical prints

To my knowledge, Manṣūr's *lilies* is the only Mughal copy of Adriaen Collaert *Florilegium.* We know, however, that the book also travelled to Safavid Persia at some point in the 17th century, where one lily was cut and pasted on an album page. Another design from the same book appears on an anonymous drawing of a *gol o morgh,* most likely produced in the 1640s [BM, 15v]. The composition comprises three elements: a bird, placed on the vertical axis and in the lower half of the page; a branch, on which it is perched, ending with a closed rose bud on the right; a vertical stem ending with an open velvet rose and a secondary bud. This velvet rose can be linked to Adrian Collaert *Florilegium* from 1587, but also to Mathias de L'Obel *Icones Stirpium* from 1591 and to Gerard John *Herball of Gerard John* published in London in

[58] The bibliography on reproduction methods is not particularly extensive. Among the most recent studies, see David J. Roxburgh, 'Persian Drawings, ca. 1400-1450: Materials and Creative Procedures', *Muqarnas*, no. 19 (2002): 44–77; Porter, 'The Diez Albums'; Eloïse Brac de la Perrière, 'Les Tribulations d'un Manuscrit à Peintures, Ou Comment Fabriquer Une Illustration à Partir de Plusieurs Modèles', in *Les Périples de Kalila et Dimna: Quand Les Fables Voyagent Dans La Littérature et Les Arts Du Monde Islamique* (Leiden: Brill, 2022), 233–67.

1636.[59] De L'Obel and John's designs are inverted from Collaert's and the British Museum's designs, but this doesn't mean much in this context, sine the orientation of the pattern can depend on the mode of reproduction used. The Persian design is simplified, the shapes are only outlined and far less precise than their European counterparts, which might result from a series of consecutive reproductions, or from the painter's own choice to only outline the figure. The plant is here inserted in a larger composition and associated with the copy of a rose bud copied from Joris Hoefnagel *Archetypa studiaque* published in 1592.[60] This bud appears as a secondary design on the original print, located in the fourth part of the book, while more elaborated rose buds are depicted on other plates, raising the questions of choice and availability. The four parts making up the *Archetypa studiaque* were published as a whole in 1592, but there is no guarantee that the entire volume arrived in Persia.

This drawing is not the only one in the album to mix iconographic sources. [BM, 3v] contains two flowery plants, a lynx and several insects. On the left, a corncockle flower is a copy of plate 8 of the fourth part of Joris Hoefnagel *Archetypa studiaque*. The central flowery plant, which remains to be identified, is oriented in the opposite direction of the first flower. The hare at its right appears in the *Thirde Booke of Flowers Fruicts Beasters Birds and Flies exactly drawne,* published by John Dunstall around 1661.[61] The insects don't seem to come from a particular source, but the overall composition is very reminiscent of Hoefnagel's plates, conceived to convey an impression of abundance as much as to save space. The maker of these drawings clearly tried to achieve maximum occupancy on the surface by alternating the orientation of the figures and filling the remaining gaps with insects. [BM, 1v] includes a plant, two birds and an inscription from plate 14 of Dunstall *Thirde Booke*, the plant being copied from Crispijn Van de Passe *Altera Pars.* The Persian maker rearranged the elements in a tripartite composition, the birds flanking the central plant, but he also kept the identification

[59] Collaert, *Florilegium Ab Hadriano Collaert Caelatum et a Philipi Gallo Editum. Illustriss. Eccelentissimoque Dno D. Ioanni Medici. Omnis Generis Elegantiarum Admiratori et Patrono, Philip. Gallaeus DD.*., pl. 4; de l'Obel, *Icones Stirpium, Seu, Plantarum Tam Exoticarum, Quam Indigenarum : In Gratiam Rei Herbariae Studiosorum in Duas Partes Digestae : Cum Septem Linguarum Indicibus, Ad Diuersarum Nationum Vsum*, 207; Dunstall, *A Booke of Flowers, Fruicts Beastes Birds and Flies Exactly Drawne. The Third Book with Additions by John Dunstall*, 1266.

[60] Joris Hoefnagel and Jacob Hoefnagel, *Archetypa Stvdiaqve Patris Georgii Hoefnagelii* (Frankfurt: Francofurti ad Mœnum : [Jacob Hoefnagel], Ann. sal. XCII. Ætat. XVII., 1592), 4–4. I am particularly grateful to Pr. Yves Porter for pointing out this reference to me.

[61] Dunstall, *A Booke of Flowers, Fruicts Beastes Birds and Flies Exactly Drawne. The Third Book with Additions by John Dunstall*, 14.

written in English on the right side of the plant, which is surprising given they most likely couldn't read the language.

[BM, 27r] follows a similar mode of production but uses another iconographic source, the *Florae Deae Inter patrios et exoticos flores sedentis artificiosa delineation,* a small volume of 13 plates (including the title page) published by Jean Messager in Paris between 1599 and 1637.[62] The entire right half of the page is an exact copy of plate 8, including the isolated spider that was originally hanging from a rose. The lizard was copied from plate 7, the central flower with long stamens from plate 5. Only the open rose bud on the far left side doesn't come from Messager's volume. It was maybe inspired by plate 4-4 of Hoefnagel *Archetypa* or a source that remains to be identified. Jean Messager and Joris Hoefnagel books were conceived as ornament books, destined to be adapted to various media, or to be used as training by aspiring craftsmen. This is how the plates were used on folios 3v and 27r, some of the designs being reproduced with exactitude to train their maker in a new pictorial style. [BM, 13v] shows a similar exercise. It bears a primrose (*Primula auricula*) copied from Johann Theodor de Bry *Florilegium Renovatum et Auctum* published in Frankfort in 1641.[63] The Persian version is reversed and far less detailed than its European counterpart, but a second leaf and a rocky based were added to the copy, similarly outlined and giving the composition a symmetry absent from the original. The reorganisation of elements and their integration into larger compositions, as seen with [BM, 1v] and [BM, 15v], are reminiscent of the concept of *ṭarḥ* already seen with Manṣūr's copy of Collaert *lilies,* but it is here translated differently, the original composition being deemed incomplete. A last example of this phenomenon is found on [BM, 16v], one of the two Indian inclusions in the British Museum album. The page bears the seal of Ja'far Khān with mention of Shāh Jahān. The plant is composed of a base of six linear leaves of different sizes growing on either side of a single stem, finished by five open buds of six acuminate petals and yellow pistil. The bloom is a copy from *Le livre de fleurs* of

[62] According to Vanessa Selbach, 'L'activité de l'éditeur d'estampes Parisien Jean Messager (Vers 1572-1649) : L'affirmation de La Gravure Française Du Premier Quart Du XVIIe Siècle, Au Carrefour Des Influences Flamandes et Italiennes', *In Monte Artium* 3 (2010): 35–51.

[63] Johann Theodor de Bry, *Florilegium Renovatum et Auctum: Variorum Maximeque Rariorum Germinum, Forum Ac Plantarum.* (Frankfurt: Mattheo Merian, 1641), 137.

François L'Anglois, published in Paris in 1620.[64] The original composition is focused on the bloom, the stem being cut by the frame below the bract. Two other narcissus are depicted on the print, five flying insects, and small scrolls with the name of each plant attached to their stem. The Indian maker chose to remove all the elements deemed unnecessary but prolonged the stem and added a leafy base, as well as colours.

Copying a European botanical engraving was not only the best way to train, but it also placed the maker of the copy within a pictorial tradition, by emulating the model and adding a creative spin to it. David Roxburgh has developed the concept of "aesthetic of familiarity", in which viewership expected painters to imitate older works, hence contributing to an intervisual culture in which maker performance would be measured against previous ones.[65] This theory needs to be nuanced for 17th century copies of European botanical engravings. Herbaria and florilegia coming to India and Persia were only a small sample of a long and complex tradition of representation in the Christian west, pushed forward by the rapid rate of new discoveries brought by the first modernity. Only a handful of botanical works have been identified as models for Mughal and Safavid flower works, and these are only fragmentary, known by motifs on individual pages. There is no evidence so far to suggest that painters had access to full books, nor that there was a trade for these volumes exclusively composed of floral designs and sometimes extensive text. Because painters were only aware of a small portion of the European production, there was little connection to that culture, which was inherently unfamiliar.

4. Longevity of models and successive reproductions

The general appetite for full-page flower paintings accelerated quickly from the middle of the 17th century, with reproductions of European botanical forms being copied from

[64] François L'Anglois, *Livre de Fleurs, Ou Sont Representés Touttes Sortes de Tulippes, Narcisses, Iris, et Plusieurs Autres Fleurs Avec Diversités d'Oiseaux, Mouches, et Papillons, Le Tout Fait Apres Le Naturel* (Paris: Joan le Clerc, 1620), 26.
[65] Roxburgh, 'Kamal Al-Din Bihzad and Authorship in Persianate Painting'.

maker to maker, the designs losing their direct connection with the source material. Several examples illustrate this phenomenon.

In 1062/ 1652-3, Shafī' 'Abbāsī used the same pattern on two paintings but with different results [72-73]. Both depict a hazelnut branch ending with two groups of fruits in their involucre supported by large leaves. This exact design is a reversed copy from a plate of Jean Messager *Florae Deae*.[66] How Shafī' gained access to the engraving is not known but the transmission between the model and the copy was certainly direct given the level of detail of the reproductions. Despite the use of a similar model, the two paintings have a very different rendering due to different framing and size, and of course the different birds sitting on the branch; what could be a shrike on the Cleveland page and what appears to be a peregrine falcon on the other, giving a very distinctive feel to both compositions. The use of the engraved model is completely diluted in the compositions, only visible to the trained eye of the art historian actively searching for copies of botanical prints. This means that the aim was not to emulate the model, nor to place oneself within an aesthetic tradition by making a clear reference, but we can argue that it was a mean to an end, Shafī' 'Abbāsī being able to save time by reusing the same shape twice. As we will see in Chapter 2, this was a common stratagem for the painter.

The second example touches on questions of authenticity and attribution, as well as lost model. Three versions of a same *narcissus* exist, produced in 17th and 18th century India and Persia. One bears an attribution to Manṣūr and no date [NADS, 79r], the second is signed Muḥammad Zamān, dated 1105/ 1693-4 [SP, 83r], the third is signed Muḥammad Masīḥ, undated but that can be attributed to the first quarter of the 18th century [89]. Of this last painter, almost nothing is known. Karimzāde Tabrīzī stated that he was an Indian painter who chose to work in the style of Muḥammad Zamān and specialized in flowers and landscapes. According to the same author, an album dated 1122H./ 1710-11 is kept in the Golestān Palace in Tehran, containing several of his works, while other paintings dated between 1125H./

[66] Jean Messager, *Florae Deae / Inter Patrios et Exoticos Flores Sedentis Artificiosa Delineatio ; Jan Messager Excu / Variorum Florum Subseauente Effigie* (Paris, n.d.), pl. 5.

1713-14 and 1133H./ 1720-22 are held in various public collections and private.[67] Only one other flower painting has been published, a drawing in coloured ink of a fantasist red flower dated 1123 H./ 1711-12 [88b]. The design of that plant is indeed reminiscent of Indian productions, with its leafy base supported by two small opposite leaves and slightly disproportionated flowers; however, the calligraphic lines and hatched shadows can be compared to Shafī' 'Abbāsī's late productions.

The three blooms of the *narcissus* are almost identical. Differ only the length and orientation of the stem between the painting attributed to Manṣūr, almost vertical, and the other two, leaning toward the upper right. The form was probably copied from a 17th century European florilegium, the composition and details being reminiscent of Theodor de Bry or François L'Anglois, but so far, the exact model remains unidentified. It seems that Muḥammad Masih used Muḥammad Zamān's painting for model but chose a different colour palette based on ochres. The existence of Muḥammad Zamān version puts into question the attribution of Manṣūr's *narcissus*. The treatment of the flowers is extremely close between the two, so much so I am led to question whether they are not from the same painter.[68] It is generally admitted that the NADS album was brought from India to Persia following the sack of Delhi by the armies of Naṣir al-Dīn Shāh Afshār in 1739, however Muḥammad Zamān's painting predates the event of more than 50 years. Several explanations can be offered, though impossible to confirm at this stage. One would be that the two paintings – Zamān's and Manṣūr's – were produced around the same time. The NADS album initially included a painting by Manṣūr which was replaced by the Persian version for any reason. Another explanation is that the European model was available in India and in Persia during the most part of the 17th century and was copied by both painters. As seen with Collaert, Messager and De Bry, this is not impossible.

Published in Paris in 1620, François L'Anglois *Livre de fleurs* found its way to the Mughal court rather quickly, being used several times under the reign of Shāh Jahān. The bunch of

[67] Muhammad ʿAlī Karimzada Tabrīzī, *Aḥwāl wa āṯār-i naqqāšān-i qadīm-i Īrān wa barḫī az mašāhīr-i nigārgar-i Hind wa ʿUṯmānī.*, 1. ed (Landan: M. A. Karimzādeh Tabrizi, 1991), vol. 3, 1142.

[68] This can only be confirmed following de visu analysis. The St Petersburg page was studied in situ in 2015. Unfortunately, access to the NADS page was denied during my last visit to the Golestan palace in 2014. For discussions on attributions, Manṣūr's and Muhammad Zamān's works, see chapter 2.

narcissus in the British Museum album [BM, 16v], adapted from L'Anglois, bears the seal of the emperor's vizir Ja'far Khān with mention to the emperor. Another page of the same book was bound in the Dārā Shukōh album [DS, 65v], which has a *terminus ante quem* of 1051/ 1641-42 and is analysed in chapter 3. The anonymous Mughal painting includes four flowers: a white hibiscus on the far left identifiable by its leaves, next to a dark purple iris with two closed buds, opposite what could be a lily with four blue petals. The plant in the centre is a snowbell (*Leucojum*). It is composed of two sheathing stems ending with a nodding flower coloured in bright orange and embellished with touches of crimson and royal blue on the stamens. The plant is not native of India, which would explain why the painter chose this colour scheme instead of pure white with yellow stamens, the natural colours of this bloom. The top flower and leaves are a reversed copy of page 15 L'Anglois *Livre de fleurs*. The original shows a sheath of four strap-shaped leaves, one cut at its top, around a unique stem finished by a spathe from which grows a short stem supporting an open flower. The plant is placed next to two other genus of Leucojum and one of narcissus, as well as a bullfinch. The copy places the flower in a different setting, replacing the other flower species and adding rocks, clouds and flying insects to signify a natural environment. A number of modifications were also made to the model, which makes it difficult to identify, but also lead to think a stencil was not used to reproduce the engraving, but it was instead copied freehand, or adapted from a now lost intermediary composition. The main modification to the design is the addition of a second stem of the author's invention where one of the four leaves should be, which comes to fill in the composition and balance the blue lily on the right. Both flowers are identical in their details but the lower one is slightly smaller. The petals of the top bloom are exactly copied on L'Anglois, as well as the spathe it grows from, but the stem linking the two is longer, its curve resembling the narcissus depicted on the left of L'Anglois' page. The painter also added to the flower blue etamines coming from the flower centre. The three remaining leaves of the base were also copied but increased in size, especially the two at the back of the central stem. Other minor details were amended, overall changing the texture of the plant elements: the leaves look smoother, the calyxes are splined.

This page from *Le livre de fleurs* is the only used in the Dārā Shukōh album, and even if the link between the two pages is clear, we can question whether the painter had direct

access to the engraving or if they went through an intermediary. Two 18th century copies of L'Anglois show the filiation of the model, but also put into question their status of "copy". Both are bound in the Small Clive Album with a *terminus ante quem* of 1765, though without much precision, as no painting in the volume is dated. [SC, 31a] and [SC, 17a] depict a *Narcissus tertius mathioli* copied from page 16 of *Le livre de fleurs.* On the print, the flower is placed in the right half of the page, next to other species of narcissus, a large tit and several flying insects. The plant itself is composed of a straight stem cut in its lower part, ended with a large sheath from which grow nine to ten flowers, three in bloom showing an abundance of petals, sepals and stamens, the other closed. The plant is not easy to read due to the profusion of elements, which probably confused the painters of the Small Clive Album who did most likely not have the original in front of them, but a now lost intermediary version. [SC, 17a] shows a simplified version of the bloom with only two open flowers coloured in bright orange (the *narcissus tertius mathioli* is normally white), the right one having only five thin petals largely spaced to form a rosette, in between each grows a stamen. The flower next to it is replaced by a closed bud, identical to the other five. A rosetted base and four long linear leaves frame the thin central stem and complete the composition. The composition on [SC, 31a] is reversed from the original. The bloom is coloured in white, with volumes and shades depicted in blue grey. The overall flower is close to the model, but the elements are less detailed. Interestingly, the open flower on the right of the engraving and left of the copy was replaced by an indistinct shape, between petals and close buds. The painter did their best to translate a form they clearly did not understand. The plant is also completed with a base of four linear leaves, shorter and larger than the other folio. The formal differences between the two paintings lead to think that two intermediary versions were used as models, and that both painters did not have access to the original.

A similar scenario plays with five folios of the same album copied from Pierre Vallet, *Le Jardin du Roy tres Chrestien Henri IV*, published in Paris in 1608. Robert Skelton first identified one of the models in 1972, a martagon lily on the last page of the album [SC, 1a].[69] The painting is a faithful copy, only the additional butterfly was removed from the

[69] Skelton, 'A Decorative Motif in Mughal Art', fig. XC–XCI.

composition, the other elements were slightly simplified. The other copies are not as clear, which can explain why Skelton didn't identify the models. [SC, 54b] bears a white henbane (*Hyoscyamus albus*) mirrored from the last page of the 1623 edition of *Le Jardin du Roy.* The plant is isolated on the Indian page, while accompanied by two types of knapweed (*Centaurea* and *Stoebe spinosa*) on the original. The bloom on the painting is coloured in white with pink shadows (contrary to its name, the *Hyoscyamus albus* is light yellow). The flowers and the calyxes were simplified. The leaves were shrunk at the base of the plant and the stem elongated, giving an impression of starkness, while the top leaves were enlarged and some of the shapes were not understood by the painter who put two leaves together in a confused green mass. Similar observations can be made regarding [SC, 39a], copied on a honeysuckle (*Caprifoliaceae*). The painter struggled with the bottom leaf, replacing it by a flabellate one. The complex bloom was also simplified, most of the closed buds being absent. This type of heavy modifications is clearly visible on the type of mountain cowslip (*Auricula rubra*) on [SC, 36b], with a mirrored bloom and a completely different foliage: where the original had two long obovate and stalkless leaves, the Indian copy has three shorter, almost rhombic leaves with irregulate serrate edges. These leaves might have been taken from another model or invented by the painter.

Other flowers in the Small Clive Album might have been inspired by Pierre Vallet, but they were so heavily modified, it is hard to tell with certainty. A very colourful design on [SC, 26b] might be a mirrored version of Vallet's edible canna (*canna indica*) on p. 87, the purple flower on [SC, 45a] could be adapted from the crocus *mesiacus* on p. 84, and [SC, 29a] seems to be a combination of the two geranium *gratia dei* on page 80. Versions of Theodor de Bry's *Florilegium renovatum and auctum* was also among the available models, as demonstrated by the fritillaria (*Lilium persicum*) on [SC, 47a] which mixes two illustrations from the *Florilegium*: the top of the plant, with three closed buds and a leafy tuft was copied on page 2, the main bloom and the leafy stem were copied from page 1. In the same way, the two massive Aztec marigold (*Tagete erecta*) on [SC, 4b] and [SC, 5a] might have found their inspiration on page 108 of the *Florilegium,* on which are represented three large open flowers with intricate systems of petal.

Are these 18th century versions of European engravings copies? The changes made by the painters, rendering the model barely identifiable, also seem to indicate that the originals were not available at the moment of production. They might then be copies of European engravings after an intermediary models, however, two crucial elements are missing: said intermediary copies, and an understanding of the painter's intent. Maker's intent is always difficult to gauge, especially in the context of collective workshops in which anonymous painters collaborated on singular pieces. Did the painter intend to emulate a European model? Were they even aware the designs came from Europe? The paintings in the Clive album might be faithful copies to their models, which were themselves deeply transformed by their maker. The process of successive copies has only recently started to be studied, but so far everything remains to be done for 18th century Mughal painting. [70]

The last Indian example comes to contradict the idea of a dilution of European models in the decorative repertoire of Awadhi painters. A reversed copy of a buttercup flower published by Jean Messager in his *Florae Deae* is bound in one of the albums made for Jean-Baptiste Gentil during his stay in Faizabad between 1759 and 1777 [O51:17v]. This album includes a flower paintings on every page, most likely produced specifically for the occasion, and based on models mostly unique in the Indian corpus. The copy of Messager is striking by its precision but differences of proportion, especially in the length of the stems and the spacing of the flowers, indicate that it is either an indirect copy, or the painter didn't use a pounce. Gentil set up his own painting workshop in the Awadhi capital and probably had several painters on retainer. Did he himself provide the models for the flowers in the album, including Messager's print, or was a painter in possession of the print or its copy?

[70] Pr Brac de la Perriere and Dr Vernay-Nouri have recently concluded a research project dedicated to Arabic illustrated manuscripts of Kalila wa Dimna fables. The collective volume published as a conclusion contains insightful papers on this phenomenon.Éloïse Brac de la Perrière, Aïda El Khiari, and Annie Vernay-Nouri, eds., *Les périples de Kalila et Dimna: quand les fables voyagent dans la littérature et les arts du monde islamique = The journeys of Kalila and Dimna: fables in the literature and arts of the Islamic world*, Brill studies in Middle Eastern literatures, volume 42 (Leiden ; Boston: Brill, 2022).