3 Mural Production

Daoist liturgy provides a conceptual framework or a set of guiding principles along which painters would, theoretically speaking, fill in a representation of a Heavenly Court. Besides a conceptual framework, there were other principles that governed the decisions of painters designing a Heavenly Court painting. These principles are of an artistic nature and are moreover largely dictated by the practices of Chinese painting culture.

I will limit my discussion here to issues of the production of Heavenly Court wall paintings with special reference to the processes and materials involved that would determine or direct the choices made by painters for representing a Heavenly Court in a certain way, in particular with regard to the four surviving paintings that form the core of this study.

This chapter will discuss three topics: the organisation of a workshop and the production process from beginning to end; the use of drawings by painters in the process of executing a Heavenly Court painting; and finally an investigation in the design of a wall painting of a Heavenly Court on the basis of surviving examples. The three topics should provide a phasing from general to concrete and an approximate historical chronology from beginning to end. Since no first-hand information is available written by the painters themselves – such as painters’ manuals similar to the manuals that existed for carpenters in the Ming period, the Lu Ban jing 魯班經 (Classic of Lu Ban)\(^1\) - or detailed accounts left by scholars on the production process of a wall painting, the discussion presented here is a reconstruction, as in the previous chapter on Daoist liturgy, based on information culled from a wide variety of sources and largely based on the material left by the painters themselves: their wall paintings, scroll paintings and drawings.

3.1 Painting workshop

Painters of a Heavenly Court work in a set organisation and follow set procedures. No complete written account survives describing the organisation or working procedures of a painting workshop in pre-modern China. Yet, based on inscriptions left by painting workshops on temple murals and references in textual sources it is possible to reconstruct the organisation and procedures of a workshop in general lines. I will discuss first some important aspects of the workshop organisation and then provide a chronological survey of the mural production process from beginning to end.

**Organisation**

The decoration of a temple with wall paintings in imperial China was the concerted effort of a team of painters. Hardly ever do textual sources credit one painter with the production of all the murals in one temple – the Heavenly Court painting by Zhang Suqing 張素卿 (fl. 845-927) in the Zhangren guan 丈人觀 on Mt. Qingcheng 青城山 is such an exceptional case – but even then we could justifiably assume that this one painter could impossibly be involved in the whole production process from preparing the walls with plaster, grinding and mixing (mineral) pigments, and painting the walls, to applying the various decorative techniques such as gold-inlay. Painters of temple paintings – both wall paintings and scroll paintings – would organise themselves in a team which I will call here a workshop. I would like to differentiate this workshop organisation from another type of organisation of painters, the Painting Academy, which represents a much larger social institution and which has been dealt with elsewhere.²

Song textual sources combined with the mural inscriptions left by painters on murals provide invaluable information on the organisation and operation of a painting workshop. I have collected these data in a table (see table Appendix 2.3). An analysis of these data, will provide seven characteristics for mural workshop organisation in the Song-Yuan period.

One, a first general survey of the numbers of workshop members in the Shanxi area shows an increase after 1300, indicating an increase in social status and commercial identity of workshop painters. This increase is exemplified by the Zhu Haogu 朱好古 workshop. Only Zhu Haogu and his disciple Zhang Boyuan 張伯淵 are mentioned in a mural inscription as having painted the murals of the Xinghua si 興化寺 in 1320 while his workshop consisting of eight members decorated the walls of the Chunyang hall of the Yongle gong sixty years later.

in 1358. Zhu Haogu would have been dead by this time. The first reference seems incomplete, leaving out the names of assisting painters, because both projects are of comparable size. An exception on the general development is the Wuyue miao 五嶽廟 (Temple to the Five Sacred Peaks) in Fenyang 汾陽 County, painted in 1326 by only two painters. A possible explanation for the small size of the workshop of the Wuyue miao is the local character of the temple as well as the fact that the murals are relatively small (only 40.91 m2) which had only taken three months in summer to finish, as the inscription relates.

Undoubtedly, the increase would not reflect an actual increase in the number of workshop members but rather a difference in attitude towards recording the names of wall painters. It appears that in the period before 1300 only the names of the masters were recorded while the disciples and assisting painters remained anonymous – also a characteristic of textual references. After 1300, the assisting painters were suddenly deemed worthy enough to be recorded in mural inscriptions as members of a workshop. This not only suggests a change in social status where individuals were granted a place in (local) history, but also a difference in conception of the organisation of a painting workshop: after 1300, the painting workshop displayed itself as a socially and economically independent entity. Although the history of guilds with relationship to painting still has to be researched, a possible overlap can be witnessed in the formalisation of guilds that in the late Yuan or early Ming organised themselves in guild halls, thus similarly manifesting themselves as independent social and economical entities.

Two, all Song and Yuan sources (with some minor exceptions) divide the workshop or painting workforce in a left group and a right group. The left group takes responsibility for the murals of the east wall, and the right group paints the west wall. Since the leading painter of the workshop always participates in the left or east group, we can further deduce that the east wall is the more prestigious wall, in conformity with the traditional Chinese notion that

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4 Zhu Haogu and Zhang Boyuan painted a very similar subject matter in the Xinghua si in 1298 as his workshop in the Chunyang hall in 1358: both have hagiographic scenes on the side walls and in the case of the Xinghua si, Zhu Haogu also painted the Seven Buddhas on the north wall. Considering the size of the Seven Buddhas mural on the north wall, the hall must have been similar in size to the Chunyang hall, if not bigger. On the contrary, the inscriptions for the two temples list only two names for the Xinghua si murals but eight names for the Chunyang hall murals. We may therefore assume that the Xinghua si inscription omits the names of assisting painters and artisans. For the reconstruction of the Xinghua si murals, see Chai, Shanxi siguan bihua, p. 67.

5 Chai, Shanxi siguan bihua, p. 75.


7 See also Chai, Shanxi siguan bihua, p. 76.
east presides over west, male over female, and wen 文 (culture) over wu 武 (martial). Most interestingly, one would feel hard-pressed to find any significant stylistic differences between the east and west walls of for example the Yongle gong or Mingying wang dian 明應王殿 murals. One surmises that such uniformity can only be the result of a drawing or design made in advance of the mural, presumably by the master painter, which all the painters then followed, each painter executing a part in his designated area. The division between a left and right group of course recalls the chao-audience and the practice of court ritual.

Three, mural inscriptions only reveal a master-disciple relationship but provide no information on functions, a hierarchical order, or a division of tasks among the painters of a workshop. The painters in the Song mural inscriptions were called huajiang 畫匠 or “painting artisans” designating their low status. From the Yuan period onward, this title is substituted by a more honourable one, daizhao 待詔 or Painter-in-Attendance, further reinforcing our idea of an increase in social status and commercial identity. Painter-in-Attendance was in Song times the highest title for a painter enrolled at the Imperial Painting Academy, but this position became obsolete in Yuan times and simply denoted the title of a self-acclaimed professional painter without any authorization by the imperial court or enrolment in a painting academy. Other, lower-ranking titles of the Song Imperial Painting Academy such as Painter-Apprentice (yixue 藝學), Painter-in-Waiting (zhihou 禘候), or Painter-Student (xuesheng 學生), are absent in mural inscriptions.

Disciple-painters in workshops are indicated by the term menren 門人, but often they also carry the title of daizhao. From this we can infer that menren is a hierarchical title and daizhao not; daizhao is rather a honorary title. Interestingly, the use of the term menren has a strong religious connotation and formally designates a person who has been ordained through the transmission of texts or by receiving a set of precepts (jie 戒). Similar circumstances may have applied to painting workshops as well, in which design albums, such as the Junkunc Album (see below 3.2), could perhaps have functioned as tools for transmission and initiation, but this remains a hypothesis for the time being. The term menren nevertheless denotes a

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The master-disciple relationship that forms the organisational basis of the workshop, without much further hierarchical differentiation.\textsuperscript{10}

The titles listed in mural inscription do not give clues on a specific division of tasks. Since mural production involved many stages from plastering walls, mixing pigments, painting designs, writing colophons, and applying decorative motifs with gold-leaf, it appears that all workshop members, perhaps with the exception of the master painter, were involved in several tasks. An anecdote of the Northern Song painter Zhang Fang mentions that he left without applying the colours, thus indicating that painters both made the design of and coloured their painters, and that this was not necessarily the task of specifically trained artisans in a workshop.\textsuperscript{11}

My observation stands in stark contrast with how modern studies thus far have regarded wall painting, especially with regard to the application of colours.\textsuperscript{12} Perhaps under the influence of later literati painting that emphasised ink-play rather than colour-play, an uneven amount of attention is paid to the brushwork of painters in many art-critical works, which we should not forget were written by literati themselves. Although these texts suggest a division of tasks between painter and artisan, it however remains uncertain if this should be considered a standard practice in mural production in general.

Five, mural inscriptions point to an increasing organisation of painting workshops based on family or lineage ties. The inscriptions show that in several cases one or more sons or relatives were involved in the painting workshop, suggesting that by the late Yuan period guilds increasingly became family businesses, a shift which also ties in with growing market competition and the promotion of a lineage or certain tradition. At least, keeping a trade and its specific techniques in the family ensured the family with a certain guarantee of income over several generations. The reliance on family relatives is for example seen in the Ma Junxiang workshop in which four sons of Ma Junxiang (Ma ‘Seven’ 马七, Ma ‘Eleven’ 马十一, Ma ‘Twelve’ 马十二, and Ma ‘Thirteen’ 马十三) work, as well as a father and son Wang

\textsuperscript{10} The Ma Junxiang workshop for example lists Ma Junxiang and his son Ma Qi first after which follow the Disciples (menren) among whom figure a few Painters-in-Attendance (daizhao), the same title as Ma and his son. The Zhu Haogu workshop in the Chunyang Hall of the Yongle gong seem to differentiate more clearly between each one Painter-in-Attendance followed by one or more Disciples, rather than one master painter followed by all Disciples. See Chai, Shanxi siguan bihua, pp. 49, 53.
\textsuperscript{11} The anecdote is recorded in Songchao minghua ping p. 29 and is translated in full below.
\textsuperscript{12} Sarah Fraser seems to particularly divide between tasks of wall and banner painters, and between monks and painters. Fraser, Performing the Visual, pp. 15-42, 131-158.
Six, mural inscriptions provide in several instances the native places of the painters revealing that painting workshops were largely a local affair. This is most clearly witnessed in the painting workshop, or rather two workshops, of the Mingying wang dian murals. The temple was dedicated to a local water deity enfeoffed as Prince of Bright Response who controlled the spring on the site of which the temple was built. From this spring originated two man-made canals, one heading north and one south irrigating the irrespective areas and sustaining the local communities in their livelihood. The west group painters were closely affiliated, as were the donors, with the area irrigated by the south canal, and the east group of painters hailed from the area of the north canal.\textsuperscript{14} The Ma Junxiang workshop painters came from Luoyang, the Wuyue miao painters came from Fenzhou, and the Guangsheng shangsi 廣勝上寺 (Upper Monastery of Broad Victory) painters both hailed from Hongtong County.\textsuperscript{15} The inscriptions thus show that the workshops obtained and trained their painters from the local workforce, and that in most cases the workshops operated in their local area.

An interesting exception to the rule is the Zhu Haogu workshop which had painters from Ruicheng芮城 (Li Hongyi 李弘宜), which lies close to Yongle (the village where the Yongle gong was originally was located) but far from the Pingyang area where the Zhu Haogu workshop was based, and from Longmen龍門 (Wang Shiyan 王士彥) which lies even farther away near Luoyang.\textsuperscript{16} One would feel inclined to think that they were not standard members of the workshop but were hired especially for the project at the Yongle gong. This would suggest that workshops operated on different levels (local, provincial, national) and that higher level workshops would be able to contract more distant but better painters.

Seven, since the inscriptions mention the native places of the painters, which are often located at quite some distance from the mural projects they were working on, we can infer that painters lived and worked for certain periods at the project site. If the small murals of the Wuyue miao in Fenyang, presently covering a surface of 40.91 m\textsuperscript{2}, took three months to


\textsuperscript{14} Native places of the painters of the west group are the same as for some of the donors of the west mural. The native places for the east group are lacking, but we can infer that they should be from the area of the north canal. Anning Jing, The Water God’s Temple of the Guangsheng Monastery: Cosmic Function of Art, Ritual, & Theater. Leiden: Brill, 2002, pp. 43, 46. Chai, Shanxi siguan bihua, p. 72.


\textsuperscript{16} The native places of the Zhu Haogu workshop painters are identified in Tsang, “Further Observations,” pp. 96-97.
complete for three painters, much larger murals such as those of the Three Purities Hall at the Yongle gong, measuring 429.56 m² or more then ten times as much, and keeping in mind that many more painters were involved, would probably take more than half a year to finish.\(^{17}\) During all this time, the painters would be resident at the site and, arguably, receive food and lodging. In the case of the Yongle gong murals at their original location in Yongle in southern Shanxi, the Ma Junxiang workshop came from Luoyang in northern Henan province, and the Zhu Haogu workshop hailed from present Linfen in central Shanxi province, both located several hundreds of kilometres from Yongle and intersected by the Yellow River or by a gruelling mountain range. The painting workshop would therefore mostly resemble a travelling company, which would reside at different places for different lengths of time.

**Painting procedures**

After a painting workshop was hired for a project, the production process consisted of many steps before the murals were completed. I will here present a general chronology of mural production procedures with special reference to the imperially sponsored Yuqing zhaoying gong murals of the early Northern Song which are fairly well documented and provide ample opportunity to discover some general trends in working procedures. I have supplemented these findings with evidence from other temple paintings from the Song-Yuan period, thus establishing the general working procedures for painting a mural in this period. After the chronology, I will shortly discuss each procedure. In the next section of this chapter I will examine in detail the various types of drawings.

The chronology of working procedures for a Heavenly Court painting, notably the murals in the Yuqing zhaoying gong, would have been as follows.

1. Appoint a project manager.
2. Assign a painting supervisor.
3. Draft and select painters or a painting workshop.
4. Divide painters into an east and a west group and assign their respective leaders.
5. Prepare designs (xiaoyang小樣).\(^{18}\)
6. Make sketches (fenben粉本).
7. Prepare the wall surface with white plaster.

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\(^{17}\) Ka Bo Tsang calculates on the basis of the time a team of painters spent on copying the Chunyang hall that the original murals would have taken a “period of 100 days or more” to complete. Tsang, “Further Observations,” p. 113. The murals of the Chunyang Hall presently cover a surface of 212.62 m². Chai, *Shanxi siguan bihua*, p. 50.

\(^{18}\) In the next section below I will explain my choice for translating *xiaoyang* as “design” and *fenben* as “sketch.”
8. Apply charcoal designs (xiuhua 衞畫) to the walls.
9. Provide underdrawing in light black ink.
10. Apply colours.
11. Provide overdrawing in dark black ink.
12. Apply decorative techniques such as gold dust, gold relief, and papier-mâché.
13. Perform a consecration ritual by Daoist priests on an auspicious day.
14. Make a small-scale copy (fuben xiaoyang 副本小樣) of the murals for renovation purposes.

The entire project of a temple painting begins with appointing a project manager. The project manager would be responsible for the entire project of building and decorating a temple, not just the wall paintings alone. The patrons of a temple, who may be an emperor, a religious order or leader, a local patron, or a local community, do not take charge of the temple project themselves but assign a project manager. Probably the most notorious project manager in Chinese history is Ding Wei 丁威 who was in charge of the construction and decoration of the Yuqing zhaoying gong from 1008 to 1013 where he is said to have made the labourers work around the clock and had them start anew if only the slightest mistake was found. We further know for example that the Quanzhen patriarch Zhang Zhijing 張志敬 (Veritable Chengming 誠明真人, 1220-1270) was placed in charge of the renovation of the various temples to the Sacred Peaks and Marshes by the Mongol Khan, after which he selected Daoist priests to manage the several projects. The specific project manager of the Beiyue miao murals is however not known.

The next step in the process was assigning a painting supervisor. Most commonly, the painting supervisor would be the master-painter of a painting workshop and was responsible for the overall designs of the murals. We may assume that the patrons, project manager, and painting supervisor would negotiate on the theme of the murals, e.g. Heavenly Court painting or narrative scenes, the selection of the deities or scenes to be depicted in the murals, their number, the decoration types, and of course the price of the murals. If the wall painting was however to be executed in a large-scale state-sponsored temple with many different halls, the painting supervisor would more likely be a famous painter, such as Gao Wenjin 高文進 in the case of the Yuqing zhaoying gong. The Songchao minghua ping states for example that “at

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the beginning of the Dazhong xiangfu reign-period, he (Gao Wenjin) supervised the workforce who were laying out (jidu 計度) the murals of the Yuqing zhaoying gong.”

Although no mention is made of any designs made by Gao Wenjin, we may assume that as a general supervisor he should have decided on the subject matter for each mural and perhaps even made some designs for them.

If the painting supervisor was a master-painter of a workshop, he would bring his own team of painters. Otherwise, the assistant-painters were drafted and then assigned to their particular tasks and mural sections. In large-scale projects, the painters could hail from anywhere in China, but we may assume that for more modest temples, a local workshop was drafted, e.g. the Zhu Haogu workshop. The Mingying wang dian inscriptions do not mention a specific workshop but rather record the names of painters from two districts allied to the two canals originating in the spring next to the temple, suggesting that individual painters were drafted for this particular project.

It should be mentioned that no any textual evidence has surfaced to date that would substantiate a common assumption that designs were painted in order to obtain a patron’s approval. This practice seems however very plausible, and we may therefore presume that the painting supervisor or master-painter would provide this design.

As already mentioned above, the painters of a workshop would be divided into a left group responsible for the east wall and a right group responsible for the west wall. This needs no further explanation. Textual records on the painting of the Yuqing zhaoying gong further suggests that each group was headed by a group-leader At the Yuqing zhaoying gong, Wu Zongyuan 武宗元 and Wang Zhuo 王拙 were heading the left and right groups respectively. Because the Songchao minghua ping mentions that Wang Zhuo painted a mural with “Five Hundred Numinous Officials and an Assembly of Heavenly Maidens on Audience with the Origin” on the west wall, which is one single theme for an entire hall and Wu Zongyuan thus painted the other half on the east wall, we may further infer that the group leaders would be responsible for the design of their respective walls. Probably due to the large scale of the project, the role of Gao Wenjin in this case may have been limited to only selecting the

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20 Songchao minghua ping p. 35. Translation adapted from Lachman, Evaluations, p. 41. The sentence could also be read differently, meaning that Gao Wenjin supervised and planned (jidu 計度) the murals, but I have followed Lachman’s translation.
21 Fraser, Performing the visual, p. 117. This interpretation recalls the use of designs in the studio of Rubens (1577-1640) in seventeenth-century Netherlands, where such designs were first made (by Rubens) to obtain a patron’s approval, then used to make several sketches of different figures and motifs of the design (sometimes by Rubens’ assistants), and finally transferred to a full-scale painting. Cf. Julius S. Held, The Oil-Sketches of Peter Paul Rubens: A Critical Catalogue. Princeton: Princeton University Press, 1980.
22 Songchao minghua ping, p. 49, and Lachman, Evaluations, p. 51.
themes and subject-matter for each mural while the actual design of the murals was left to the group leaders.

Even though the group leader made the designs, the actual painting of the mural – the transferring of the design to the mural – was the task of painters of the team, workshop or group. I will now translate an anecdote from the Songchao minghua ping on the painter Zhang Fang 張昉, because it contains several important elements to which we will return in the next procedures:

“During the Dazhong xiangfu reign-period (1008-1017), when the construction of the Yuqing zhaoying gong was completed, Fang was summoned to paint the images of “Heavenly Maidens Playing Music” in the Three Purities Hall. Fang did not avail himself of charcoal designs (xiuhua) [on the walls] but wielded his brush with force rapidly completing the images which were all over three meters high.

His fellow painters [who were also working on the murals in the Yuqing zhaoying gong] all turned their heads in amazement, but in the end they stealthily complaint with the supervisor that Fang was too careless and intentionally wanted to show off his speed. Fearing that anybody would try to imitate this unusual behaviour, [the supervisor] visited him and lectured him on his duties. Fang then left without adding colours to his painting, an action the critics much regretted.”

This anecdote demonstrates Zhang Fang painted only a fragment of a Heavenly Court painting, namely the “Heavenly Maidens Playing Music.” Because the name of the hall is mentioned, Three Purities Hall, we know that the murals in this hall should depict a Heavenly Court painting. In fact, the so-called Wu Zongyuan scroll also contains a group of female attendants playing music instruments (Plate 12 ). From this anecdote we can conclude that Zhang Fang was an assistant-painter under either Wu Zongyuan or Wang Zhuo. It may therefore have been Wu Zongyuan, Wang Zhuo or perhaps Gao Wenjin who was the supervisor admonishing Zhang Fang for his reckless behaviour.

The same anecdote also provides important information on the use of designs and sketches in the working process. The fact that Zhang Fang did not first laid out his painting on the wall with a charcoal design, but applied the underdrawing directly to the wall presupposes that assistant-painters of a workshop or group worked (in fact had to work because the text

23 Songchao minghua ping p. 29. Translation adapted from Lachman, Evaluations, pp. 36-37.
says “summoned”) from a fixed design. As I will demonstrate in the next section on drawings below, this design was on scale and represents literally a “small-scale model” (xiaoyang 小樣). The painting supervisor, group leader or master-painter would provide the design and assistant-painters would be assigned to transfer a section of the design to the wall. As the anecdote demonstrates, the usual way was first by applying a charcoal design in free-hand on the wall, after which the assistant-painter would then draw the image in light ink.

However, a preparatory stage before the application of the charcoal design and underdrawing in light ink would have been the making of sketches (fenben 粉本). These sketches depict certain fragments, sections, or motifs of the design which the assistant-painters worked out before they started on the wall. Although no such sketches have survived for Song and Yuan temple paintings, a great many have survived at Dunhuang from the eighth and ninth centuries, where they were found sealed in a cave in 1900. One major characteristic of these sketches is that not one of them depicts a complete design for a mural; rather, they all depict fragments. We may therefore infer that assistant-painters first made sketches of sections of the design, to which they were assigned, before they would start painting on the walls.

Before any painting on the wall could be done, the surface of unfired brick walls should first be prepared and plastered white. The lower part of the mural consisted of fired bricks and was not plastered. The plaster usually consisted of several layers of clay mixed with coarse or fine sand strengthened with wheat stalks, hemp fibres, and chopped straw. The quality of the plaster (the number of layers, thickness, its constituents etc.) not only determined the durability of the murals, but is also a good indication of the price of the murals. For example, the plaster of the Heavenly Court paintings in the Three Purities Hall of the Yongle gong consists of three different layers of clay, in total measuring 2-3 centimetres, and additionally has on top of the second layer a grid of iron or bamboo pegs with tied hemp strings to enhance bonding. The small scale Nan’an murals are much thinner, 1-2 centimeters, and have consequently withstood the test of time less successfully.

After the preparation of the wall, the several stages of applying charcoal designs, underdrawing in light black ink, colouring, and overdrawing in dark black ink were executed, constituting the actual painting process. This entire process is explicitly mentioned by the

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24 These sketches formed the basis of the study in Fraser, Performing the Visual. My interpretation is also influenced by Rubens’ studio practices as described in Held, Oil-Sketches. The Dunhuang sketches would corroborate this view.

25 The most complete western language publication to date on the Chinese techniques of preparing wall paintings is Tsang, “Further Observations,” pp. 110-114.
Yuan painter and art-critic, Rao Ziran 饒自然 (ca. 1340) in his *Huizong shi’er ji* 綘宗十二忌 (The Twelve Faults in the Painting Tradition), including the charcoal design on the wall. Although mainly intended for painting landscapes on scrolls or on walls, the proceedings outlined here by Rao Ziran equally apply to figure paintings. Rao Ziran writes:

“If the painting silk exceeds that of several scrolls [in length], or if the wall exceeds several tens of meters [in width], it is necessary to use a bamboo pole to which one affixes charcoal (*tanxiu* 炭朽) to distribute the mountains and valleys, trees and stones, and towers and pavilions. Big or small, high or low, each has its proper position. Then, step away from it several tens of paces and observe it carefully. If you see that it is acceptable, then use light ink to lay down the approximate composition. This is called the ‘small beginning of the brush.’ After that, wield your brush and sprinkle ink to your heart’s content; anything is suitable.”²⁶

Rao Ziran’s exegesis on painting composition contains exactly the three stages of our painting process: 1) a charcoal design, 2) underdrawing, and 3) overdrawing. The absence of a direct reference to colouring is probably due to the fact that landscape painting by the Yuan had become strongly associated with literati-painting (*wenren hua* 文人畫), preferring brushwork in ink alone. In figure painting, the colouring would take place after the underdrawing. Overdrawing would eventually define the outlines of each figure and motif. Murals in which the colouring transgresses the outlines can often be taken as a sign of an inferior workshop. Murals in which this does not occur of course of superior quality. Furthermore, as the Zhang Fang anecdote above attests, the assistant-painters would normally apply the colours to the paintings themselves. Chinese colour pigments used in wall painting are mineral pigments and have to be ground and mixed with a cohesive before use. Each mineral pigments was imported from a specific region in China or even abroad, and each one therefore differed in quality and price. It should further be noted that overdrawing was not always applied, as seen for example in several Tang Tomb murals,²⁷ but overdrawing remains the most common form, and all extant Yuan temple paintings have overdrawing.


²⁷ No overdrawing was applied in the tombs of Li Xian 李賢 (Crown Prince Zhang Huai 章懷) and Li Chongrun 李重潤 (Prince Yide 章德) of the Tang located in Shaanxi province. Fraser, *Performing the Visual*, p. 270, n. 73. See also ibid. p. 276, n. 17. Underdrawing is revealed on places where the murals are damaged or where colours have flaked off.
Depending on the wealth of the patrons, the murals could be further embellished with applied gold leaf, gold dust, and papier-mâché. Inlays of gold relief are mostly applied to crowns and jewellery of imperial figures and to the armouries and weapons of warriors. Although the gold relief in many murals is nowadays scraped off, in their original state the murals must have radiated with light, and together with the colourful gowns and sashes, the murals could equal a real imperial audience or procession. Gold dust is used on robes, faces, and bodies and adds to the overall brilliance of the spectacle. In the case of the Beiyue miao murals, gold dust was applied to two dragons and a demon figure (the so-called Quyang Demon) which are depicted on the higher and darker reaches of the wall painting, thus ensuring a better visual presence for viewers on the ground. Papier-mâché is less common but can for example be seen in the Heavenly Court painting of the Yongle gong, where it is used to add relief to a ‘treasure’ at the foot of the King Father of the East (III) on the east wall. These decorative techniques are very important instruments in Chinese wall painting to add lustre to the visual drama depicted on the wall. Because of their high costs, the extent of their application can be understood as markers of the quality and price of the murals, and by extension that of the workshop. In this respect, the Yongle gong murals are without comparison. The decorative techniques in Chinese temple painting still remain largely unstudied.

Although not the domain of the painting workshop but certainly of importance for marking its completion, the completion of a temple painting would be celebrated with a consecration ritual to be held on an auspicious day. The construction and decoration of a temple complex was in traditional China on every important stage accompanied by rituals: before the beginning of construction, with the installation of a title board marking the completion of a hall, after the completion of the murals, and probably during other occasions as well. Painters, like carpenters of the Ming, may be involved in small rituals during the process.28 Official histories or art-critical texts never make mention of such rituals, but references to such celebrations are found among the writings of Daoist priests and Buddhist monks. For example, Du Guangting wrote a long prayer (ci 詞) - basically a memorial - for a jiao-offering celebrating the completion of the Heavenly Court murals painted by Zhang Suqing (fl. 845-927) in the Zhangren guan.29

28 The Lu Ban jing, the carpenter’s manual of the Ming, abounds with instructions for all kinds of smaller rituals. See Ruitenbeek, Carpentry and Building.
Importantly, we should note that the consecration ritual is not the so-called ritual of “opening the light” (kaiguang 開光) but a jiao-offering. The Ritual of Opening the Light entails the dotting of the eyes of a deity image with a brush from which moment on the image is inhabited by a “numinous power” (ling 靈). Although this ritual is very popular in modern religious practices of both Buddhism and Daoism, it seems only to have been introduced in Daoism very late.  

Jiao-offerings consecrating the murals were held on auspicious days, and mural inscriptions left by the workshop painters are rather uniform in this regard. Murals of both halls of the Yongle gong, and those of the Mingying wang dian were all completed on the first day of the lunar month, i.e. new moon; only those of the Wuyue miao were completed on the fifteenth day of the lunar month, i.e. at the full moon. Both days are considered auspicious and accord with ancient Chinese practices of ancestor worship. Sometimes, other dates occur such as in the case of the Qinglong si 青龍寺 murals which were completed on the nineteenth day of lunar month X (lost). These other dates may be connected to specific festival days of the temple deity, such as his or her birthday, but this information is in this case difficult to retrieve. Birthdays of deities and other religious holidays are also considered auspicious days. In sum, the completion of a Daoist mural is a feat celebrated by the painters, the local community and its gods with a jiao-offering, which in practice meant a lavish banquet in which everybody participated.

One final stage in the process of mural production would be making a small-scale copy (fuben xiaoyang 副本小樣) of the murals for renovation purposes. The copy was stored in the temple or in the imperial library if it concerned a state-sponsored temple project. In a seminal article published in 1956, the Chinese scholar Xu Bangda 徐邦達 was first to draw attention to two textual references of this practice in Guo Ruoxu’s (ca. 1080) Tuhua jianwen zhi. In the entry on the painter Gao Yi 高益, who was responsible for the murals in the state-sponsored Xiangguo si 相國寺 (Monastery of the Realm of Xiang), Guo Ruoxu remarks that:

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31 The inscription of the Three Purities Hall murals of the Yongle gong read liu yue ri 六月日, “the day of the sixth month” which I assume to refer to the first day of the month. See Wang, “Yongle gong,” p. 68.

32 Chai, Shanxi siguan bihua, p. 61.

33 Xu, “Cong bihua fuben xiaoyang.”
“Later he received an imperial order to paint a Transformation Table of King Asoka in the surrounding corridors of the Xiangguo si, as well as Tejaprabha Buddha and the Nine Luminaries. A small-scale painting (xiaoben 小本) of the composition is preserved in the Imperial Storehouse (neifu 内府). Eventually, the two temple corridor [paintings] fell into dilapidation, and famous hands of later generations where ordered to [restore the paintings] for which they copied in freehand (linfang 临仿) from the small-scale painting.”

In an entry in the same work on the Xiangguo si we further find information on the name of the painter responsible for the restorations:

“Its four corridor walls were all restored, after which famous hands of the present period such as Li Yuanji 李元濟 were called together to copy in freehand anew from the small-scale copy (fuben xiaoyang 副本小樣) stored in the Imperial Storehouse. But each of them put new ideas in their application of [the small-scale copy].”

In the last reference, the term fuben clearly denotes a copy, and it must have been this term that led Xu Bangda to hypothesise that after the completion of a mural, a small-scale copy was made especially for renovation purposes. We must note that the first reference omits this term, leaving open the possibility that a design (a “small-scale model” or xiaoyang) was used made before the painting of the mural.

Xu Bangda further linked this term to two other examples, one being an alleged small-scale representation of the Yongle gong mural and stored inside the temple until the Japanese occupation when it was lost, and the other the Wu Zongyuan scroll, suggesting that both were used for renovation purposes. Because the Yongle gong specimen is lost, it is difficult to verify if it was a design or a copy, even though we can rightly assume that it was used for

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35 Tuhua jianwen zhi p. 242. Translation adapted from Soper, Kuo Jo-Hsü, p. 98. Strangely, Liu Daochun’s Songchao minghua ping has a different story of the matter, involving amongst other Gao Wenjin in the restoration: “With the passage of time, the murals that Gao Yi had painted for the Xiangguo si had become dilapidated. The emperor missed their delicate brushwork, and thus decided to have them restored. He summoned Gao Wenjin and asked, “When it comes to the reds and blues, who is the equal of Yi?” Wenjin replied, “Although I cannot equal him, if I would be permitted to copy the brushstrokes by means of a wax stencil (lazhi 蠟紙), when transferred to another wall they would not differ in the slightest from Yi’s originals.” Accordingly, together with Li Yongji 李用及 and Li Xiangkun 李象坤, he copied the old works and transferred them to a new wall, capturing both the character and life-force of Yi’s works.” Songchao minghua ping pp. 34-35. Translation adapted from Lachman, Evaluations, p. 41.
renovation purposes. The Wu Zongyuan is a less sure case, because the unfinished state of the scroll, as indicated by the undefined ink washes used to depict hairs, the missing parts of the balustrade in the background, and some carelessly rendered lotus leaves, already pointed out by Xu Bangda.\textsuperscript{36} Such characteristics rather point to a design made in advance of a mural, and Sarah Fraser linked them to the unfinished state of preparatory sketches found at Dunhuang, for which reason she identifies the Wu Zongyuan scroll as a \textit{fenben}.\textsuperscript{37} However, these objections however still would not deny the possibility that the Wu Zongyuan scroll was used for renovation purposes. It was probably also kept in the imperial library. It has a seal of the Xuanhe-period. If authentic it would mean that it was in the collection of Emperor Huizong, and the \textit{Xuanhe huapu}, recording Huizong’s collection, indeed lists a Heavenly Court painting by Wu Zongyuan.\textsuperscript{38}

Actually, an example of a small-scale copy has survived from the Ming dynasty. The Chongshan si 崇善寺 (Monastery of Venerating Benevolence) murals in Taiyuan (Shanxi), now destroyed, were painted in small-scale on album leaves, each leaf representing a scene from Buddha Shakyamuni’s life as depicted in the murals.\textsuperscript{39} Curiously, the album, dating to 1483, was commissioned a hundred years after the murals were completed, apparently during a renovation to the temple. It is not known if it substituted another album, but since it was kept at the temple, and for example not in a painting workshop, we can assume that the album was commissioned specifically for renovation purposes. Interestingly, the paintings were done on silk and, importantly, in colour, as one might expect of copies used for renovation purposes. The format of an album is also uncommon, but is probably facilitated by the fact that the paintings depict narrative scenes of equal size.

\subsection*{3.2 Drawings}

In order to understand how a Heavenly Court painting is built up and structurally organised by wall painters, it is necessary to examine more closely some important pictorial tools the painter used in the preparation of a mural. An essential part of the painting process is the preparation of various kinds of drawings that serve as models on which painters would base

\begin{itemize}
\item \textsuperscript{36} Ibid. p. 57.
\item \textsuperscript{37} Fraser, \textit{Performing the Visual}, p. 117.
\item \textsuperscript{38} \textit{Xuanhe huapu} p. 99.
\item \textsuperscript{39} For the album, see Chai, \textit{Shanxi siguan bihua}, pp. 99-100, 235.
\end{itemize}
the final wall painting. The drawings are representations of this praxis of transferring images from a model to a wall painting and, consequently, various types of drawings each represent an intermediary stage between a model and a final painting. An investigation of the types of drawings will explain how sketches were involved in the production process of a Heavenly Court painting.

In my discussion I will rely on the classification on drawings introduced by Giorgio Vasari (1511-1574). Vasari divided drawings into three types: schizzo, disegno, and cartone, or sketches (small-scale, unfinished and fragmentary drawings after a model), designs (relatively finished compositions often on approximate scale after a model), and cartoons (full-scale outline drawings on full-scale pricked with holes which leave a trace of the outline on a painting surface when brushed with pigment powder). Vasari’s classification is particularly useful for our purpose because, amongst other reasons, the three types are classified according to praxis. The three types of drawings are each a representation of a different praxis concerning drawing. I will use these three different terms in this study because, in western language and art history, they already have defined meanings. Because no such classification of Chinese drawings exists, I will therefore use the western classification as a starting-point to investigate the Chinese drawings and their terms.

As I will demonstrate in this chapter, the same classification can, by a large, be applied to extant Chinese drawings, and the type “sketch” should, I argue, correlate to the Chinese term fenben 粉本, and the type “design” should correlate to the term xiaoyang 小樣. This identification of xiaoyang does not interfere with the idea proposed by Xu Bangda that it should denote a small-scale model of a mural after its completion, as I already noted previously. The identification of the type “cartoon” with a specific Chinese term is less evident. Modern scholarship in China and the West have always explained fenben as originally designating a cartoon (in these studies often translated as a “pounce” or a “stencil”), primarily because a literal translation of the term fenben, “powder version,” would suggest that it refers to the powder brushed in the holes of the cartoon, and secondly because the modern Chinese term for a cartoon is cikong 刺孔.
examples of such cartoons were found among the scriptures and paintings that survived at Dunhuang from the ninth and tenth centuries. Yet, not one textual reference to fenben in traditional sources on Chinese painting would indicate that a cartoon is intended or that in any way powder was used in their application. Because the use of cartoons has still to be attested in Heavenly Court paintings – in the Mogao cave paintings the cartoon was mostly used to create repetitive images such as those of the Thousand Buddhas on difficult to reach places, in particular ceilings – we will postpone this topic for future research.

In this chapter, I will investigate the two main types of drawing used in the production of Heavenly Court painting, sketches and designs. Information on the praxis of drawing can be obtained from three different but complementary sources: textual references, extant examples of sketches and designs, and wall paintings that reveal the use of such pictorial tools. The period under discussion is from the seventh to the fifteenth centuries. From these three different sources it will be possible to discern some recurring patterns in the practical application of drawings as a preparatory stage to composing and visually organise a Heavenly Court painting.

Sketches
Sketches are drawings of fragmentary sections of a composition and are used as studies for transferring an image of a model to a painting. The traditional Chinese term for such sketches is fenben 粉本, and the cache of scriptures and paintings retrieved from Mogao Cave 17 at 1900 include many examples, if not all, of this type of drawing. Except from a few designs for mandalas and banners, all drawings related to the Dunhuang wall paintings are sketches of fragmentary aspects, some of them also found in the wall paintings. Sarah Fraser has made an elaborate study of the extant sixty-five scrolls with these drawings, but since my classification, methodology, and aims are different from hers, the results presented here should be seen as a contribution to the research on Chinese drawings and their relationship to wall painting.

An analysis of the Dunhuang sketches reveals that sketches transmitted three types of compositional elements: details, single figures, and groups of figures. Dunhuang sketch P.

44 Fraser, *Performing the Visual*.  

156
2002 V°, sections four and five, consists of the compositional elements details and single figures. Noteworthy, when a single figure is drawn, the face is often left blank; faces and crowns on the other hand are studied in separate sketches.⁴⁵ An example of a group design in the Dunhuang sketches is the preparatory sketch with Raudrāksha seated on a throne from which heretics are tumbling down, blown away by a fierce wind.⁴⁶ This particular compositional element appears in fifteen cave paintings in the Dunhuang area depicting the theme of the Magic Competition, all datable to ca. 862-980. The story of the Magic Competition deals with a duel in supernatural powers between Śāriputra and Raudrāksha, representing the Buddhists and non-Buddhists, or heretics, respectively. The heretics are of course beaten and forced to undergo tonsure, i.e. to become Buddhists. The popularity of the story in late ninth and tenth-century Dunhuang cave paintings has strong ethnic undertones, and is often explained as a victory of the “Han-Chinese” (i.e. the minorities posing as such) over the foreign Tibetans who had occupied the area in the ninth century.⁴⁷

The same structural division in compositional elements can be noticed in existing wall paintings, scroll paintings, and even relief sculptures, because sketches were not limited to painting alone but were applicable to all kinds of pictorial media. In the following examples, the existence of sketches can be inferred precisely by the similarities of the compositional elements. It is the praxis of transmitting compositions, as a copy or as a model itself, that allows us to presuppose the existence of many types of sketches circulating over long distances and periods. This praxis has of course its roots in copying (mo 載) which importance was already stressed in one of the earliest writings on Chinese painting by Gu Kaizhi顧愷之 (fl. 345-406).⁴⁸

One, details. Smaller compositional elements such as hand-held attributes and types of headdresses are obvious items to be transmitted through sketches. One example is the horizontally held court tablet in Heavenly Court paintings. It appears both in the Toronto murals (Fig. 46), and in the Yongle gong murals (Fig. 47) on the south part of the west wall. In both cases a Daoist deity seems to inspect the surface of his horizontally held court tablet, but the two figures are in fact depicted in slightly different poses, ruling out the possibility

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⁴⁶ Ibid. p. 60.
⁴⁷ Fraser, Performing the Visual, pp. 71-86, 169-174.
⁴⁸ Translated in Acker, Some T’ang, Vol. 2, pp. 68-69. Although mo 載 technically means “tracing” (in later texts), the context points to the more general meaning of copying.
that the entire figure constituted a compositional element transmitted through sketches; only
the court tablet apparently formed such a compositional element.

With regard to types of headdresses transmitted through sketches, the difference
between the crowns of the deities in the Toronto and Yongle gong murals is very marginal,
suggesting that the painters of two different workshops took their models from the same set of
preparatory sketches. The closer affinity with official dress codes of these two Heavenly
Court paintings further suggests that both painting workshops worked with preparatory
sketches transmitted from the cosmopolitan area. By contrast, the tongtian-crowns of the
Southern Dipper deities depicted on the east wall of the Nan'an murals (Plate 9) differ greatly
from other such examples and are less in conformity with standard representations of imperial
dress code, strongly suggesting the possibility that the Nan’an painters worked in a very local
tradition. They probably also relied on a limited set of preparatory sketches because the
crowns are nearly identical and without any variation. In this case, we can surmise that the
preparatory sketch the painters used was not a tool for transferring a design from model to
painting, but a model itself.

Two, single figures. Probably one of the most recognisable and enduring compositions
in Chinese figure painting is the emperor spreading his arms. It appears in several scenes of
the Mogao cave paintings and in the Longmen stone reliefs, and in scroll paintings of for
example the “Thirteen Emperors” attributed to Yan Liben (d. 673) and the Wu Zongyuan
scroll.\footnote{See Mogao Caves 220 and 61 dating to the Tang and Five Dynasties. Whitfield, Danhuang, Caves of the
Singing Sands, Vol. 2, p. 71. The Binyang Cave reliefs, dating to the Northern Wei, are on display in the
scroll is in the Boston Museum of Fine Arts, published in Wu Tung, Tales from the Land of Dragons: 1,000
Zongyuan scroll, see Zhongguo meishu quanji, huihua bian 3, Songdai huihua, p. 22.} It means that this particular design was used by painters from all over China over a
period of at least five hundred years.

Three, groups of figures. A final example of a certain composition transmitted over
time and place and even occurring in different religious contexts and in different
iconographies is found in the Yongle gong and Pilu si 毘盧寺 murals, the first representing a
Daoist Heavenly Court and the second a Buddhist Water-and-Land painting. The Yongle
gong lies about five hundred kilometres southwest of the Pilu si. A composition of five
figures appears in both layouts. In the Yongle gong murals (Fig. 48), they appear on the south
part of the east wall (192-195, 197) and in the Pilu si murals (Fig. 49) on a similar location on
the southeast wall, perhaps suggesting that this particular design was used to close off a
procession or an audience scene on the east side. The soldier holding his sword and depicted *en face* is particularly instrumental to achieve this effect. This type of soldier holding his sword and depicted *en face* is, interestingly, also witnessed in the Beiyue miao murals, but on the west wall where he closes off the audience on the north side (Drawing 3B). The remaining four figures however represent different iconographies, those of the Yongle gong representing warriors and generals, apparently of two different iconographic units, while the Pilu si murals represent them as one unit of five figures in Mongol dress and identify them as such in the accompanying cartouche. Even though their iconographic representations differ, the figures in both murals have the same postures and position and clearly are part of one fundamental composition. It seems implausible that the Pilu si painters copied the design from the Yongle gong; the size of the figures also differs. Rather, we can surmise that the painters used a design on a sketch circulating among different workshops.

A much larger survey of images would no doubt yield many more examples, but for our purpose here, I hope to have made clear that sketches served to transmit compositional elements and that wall paintings, and in particular Heavenly Court paintings, rely on a combination of these three basic compositional elements. In the transfer of the design from sketch to wall painting, the painters could alter the eventual representation of each element in almost infinite ways, depending on the wishes of the patrons and the requirements placed on the design by the architectural layout of the hall.

The next step in the process of composing a Heavenly Court painting was a combination of all the compositional, fragmentary elements in a design which represented a “small-scale model” (*xiaoyang*) of the entire mural.

**Designs**

Not many designs (*xiaoyang* 小樣) of wall paintings have come down to us. For example, no complete designs are known of the Mogao cave paintings. Of other examples, their exact status has yet to be determined. I will here discuss two examples of designs which are directly related to Heavenly Court painting. The first is the Wu Zongyuan scroll in the C.C. Wang Collection and the other is the so-called Junkunc Album with designs, now in the collection of the Cleveland Museum of Art. Both examples will give us important information on the working process of composing and transmitting designs to a wall painting.

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50 For reproductions, see Jin, *Yuandai daoguan*, p. 28; and Kang, *Pilu si qun hua*, p. 265.
51 On modularity of compositional elements in Chinese art, see Ledderose, *Ten Thousand Things*. 
The Wu Zongyuan scroll is a design for an east wall of a Heavenly Court painting, depicting a procession of deities drawn in black ink on silk. I will argue that the Wu Zongyuan scroll should be a design of, or intended for, an actual wall painting. The way to prove this assumption, I propose, is by comparing the measurements of the scroll to existing wall paintings. After all, if the Wu Zongyuan scroll represents a design of a real wall painting in a temple hall, the scale of the scroll should match the measurements of a wall painting.

I will first discuss the structure of a temple hall. Temple walls exist in different sizes and measurements, but all adhere to architectural principles that would limit the number of columns and bays (jian 間, i.e. the distance between two columns) for constructing a temple hall. According to the early Tang text Fengdao kejie 奉道科戒, the largest possible number of bays across the front of a Daoist monastery hall is thirteen. Since Chinese temple halls are traditionally wider than they are deep, a smaller number of bays would be found on the east and west walls of the hall. If we take a fairly standard architectural layout of a temple hall containing wall paintings, such as for example that found in the Three Purities Hall of the Yongle gong, which seems to closely follow building standards as described in the Fengdao kejie, it is possible to calculate the measurements of a Heavenly Court painting according to the size of a temple hall, i.e. its numbers of bays.

I will now calculate the measurements of Yongle gong murals per number of bays. The Three Purities Hall is seven bays wide and four bays deep. The front has a façade with folding wooden doors spanning five bays, and the rear wall has a back door of one bay. If we take the east mural as an example - matching the Wu Zongyuan scroll which also depicts an east wall judging from the direction of the procession - the mural starts on the east end part of front wall (2.37 m, one bay), continues on the east wall (14.32 m, four bays), and ends on a large segment of the east part of the rear wall (11.23 m, three bays), measuring in total 27.92 meters in length and 4.38 meters in height and running over a wall of in total eight bays. Even though bays are hardly ever constant in width, we can state that in general one bay would correspond to about 3.5 meters of wall and mural.

Let us now consider the measurements of the Wu Zongyuan scroll and transpose these to a wall of an imaginary temple hall. The Wu Zongyuan scroll measures in total 777.5 cm in length and 58 cm in height, but this includes the colophons and the mounting. The size of the original scroll with images is shorter, and measures 580 cm in length and 44.3 cm in

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52 Dongxuan lingbao sandong fengdao kejie yingshi DZ 1125, 1.14a
53 For the measurement of the Three Purities Hall, see Chai, Shanxi siguan bihua, pp. 44-45.
54 These measurements are found in Little, Taoism and the Arts of China, p. 240.
height, and we shall use these measurements for our calculations.\textsuperscript{55} If we wish to transpose the Wu Zongyuan scroll to a wall similar that of the Yongle gong, we have to magnify it by 10, which would give a fictive mural measuring 58 meters in length and 4.43 meters in height.

Would it be possible to construct to a temple hall which could fit such a long mural? Yes, this is certainly possible, and to be more precise, it would fit a hall of thirteen bays wide in front, the largest possible hall according to the reckoning of the \textit{Fengdao kejie}. If we consider that the Yongle gong murals measure 3.5 meters per bay, we can calculate that the fictive Wu Zongyuan mural would run across 16.5 bays, or sixteen or seventeen bays in reality. If we further would take the division of doors and walls of the Yongle gong as an example and transpose this same division to the fictive hall, it is possible to construct a hall of thirteen bays wide and eight or nine bays deep, which has a mural running over sixteen or seventeen bays. Very similar to the Three Purities Hall of the Yongle gong, the imaginary thirteen-bay hall would have folding wooden doors spanning nine bays in front, and a back door in the rear wall of one bay. This leaves sixteen or seventeen bays for the wall with the mural: two bays on the east end part of the front, eight or nine bays to the east, and six bays on the rear wall. It would be my guess that the east wall would have nine bays with shorter distance between the columns in order to give firmer support to the roof of such an enormous hall.

Ergo, the Wu Zongyuan scroll is a reduced-size version of or for a real mural. From the fact that the scroll would fit a thirteen-bay hall, we can further assume that the scroll depicts a mural composition for an imperially sponsored Daoist temple in the capital, of which numerous were built in the Northern Song. It is further of interest to note that the design is painted on scale 1:10, which is exactly the same scale used for drawing up plans for architectural layouts in traditional Chinese architecture. For instance, the Song building manual \textit{Yingzao fashi} (Building Standards), compiled by Li Jie \ 李诫 (ca. 1065-1110 or 1035-1108) and completed around 1100, stipulates that before building a roof first a cross section has to be drawn on a flat pane of a wall in which \textit{zhang} (3 m) are substituted for \textit{chi} (30 cm), \textit{chi} for \textit{fen} (3 cm) etc.\textsuperscript{56} This evidence from Chinese architecture not only corroborates our hypothesis that the Wu Zongyuan scroll is indeed a design for an actual

\textsuperscript{55} Measurements given in \textit{Zhongguo meishu quanji},\textit{huihua bian 3}, \textit{Songdai huihua}, p. 8.

mural but further suggests that such designs followed standard guidelines for scaling or modelling also common in architecture.

Importantly, the scale of the design wholly depends on the measurements of the handscroll and not on the drawings. This observation reveals some important details on the procedures involved in transferring the design of the wall paintings to the miniaturised format of the scroll. First, the murals were measured. Second, the measurements were divided by ten which provided the measurements of the handscroll needed. Third, the height and width of the design could then be measured (presumably by means of a grid) and also divided by ten. Fourth, these measurements could then easily be measured out or compared with the design on the handscroll, in which for example inches (fen) stand for feet (chi).

If my assumptions are correct, it would mean that the measurements of a presumed design are the main clue to its identification, rather than the characteristics of the images represented on it. If the measurements can in any way be related to an imaginary but architecturally feasible temple wall, the painting stands a very reasonable chance to be identified as a design. It is of course imaginable that also other methods existed for preparing a design other than dividing through ten, but it remains a topic for future research to investigate if the measurements of other candidate-designs can be linked to possible temple walls. This goes beyond the scope of this study which wants first to investigate the practices involved in making a mural and how drawings are incorporated in this process. I believe the Wu Zongyuan scroll represents a very standard type of design used in wall painting projects in temples of the Northern Song court.57

The Wu Zongyuan scroll is not the only type of design, and variation exists, obviously geared to meet different practical ends. The designs contained in the so-called Junkune Album, and also known under the name of its pirated edition, the Daozi mobao (Wu Daozi’s Ink Treasures), can instruct us on several other important practical features of the design. Collected together, the designs are not only “small-scale models” of envisioned murals but, I would argue, represent also ‘master-models’ defining the repertoire and style of a workshop.

I define four characteristics of the praxis involving this design album as can be inferred from the designs themselves. These characteristics also set it apart from sketches. First, it represents a near-complete collection of deity figures that in their totality or in various combinations could constitute a Heavenly Court painting. In other words, it can be defined as

57 The fact that the Xu Beihong version of the Wu Zongyuan scroll is shorter (and on paper rather than on silk) also poses some interesting difficulties on the iconopraxis of that version.
an album rather than as a collection of independent sketches. In fact, the album consists of two parts. The first part of twenty-six sheets consists of deity figures for a Heavenly Court painting, beginning with two of the presumably originally three images of the Three Sovereigns (sanhuang 三皇) and followed by hosts of other deities, mostly represented as one particular group per album sheet. Only the numerous marshals (yuanshuai 元帅) or exorcist deities are depicted over several album sheets. The second part of ten sheets consists of narrative scenes belonging to the theme of Clearing out the Mountains (soushan tu 搜山圖) of the Water Deity, generally identified as Erlang 二郎, arresting with his goblin forces all kinds of wild animals living in the mountains, forests, and seas. The album therefore represents the repertoire on offer in a certain workshop.

Second, each album sheet, with the exception of the exorcist marshals, represents a finished product. They lack the incompleteness of sketches or studies and each sheet maintains a regular style and proportion of figures, which seems to suggest that the sketches were not intended as private tools or studies for constructing a painting, but rather as objects to be shown to others, be they painters or customers of the workshop.

Third, each sheet with a group of figures overlaps with the format and subject matter of a single hanging scroll, and the sketch album would therefore contain the master copies or models for both wall painting and hanging scroll paintings that could in equal capacity represent a Heavenly Court composition. The Junkunc Album itself provides no clues that it was only intended for wall paintings.

Fourth, most deity figures in the first part have characters written above them identifying their names, a feature absent for example in the Dunhuang sketches. Knowing the correct names with the correct representation is in fact unnecessary for preparatory sketches, from which I would argue that the Junkunc sketches served another purpose than just sketches. Rather, they demonstrate that the sketches are finished and fixed products that served as reference material – the master copy - for the painters of a workshop, and perhaps also as an album that could be shown to prospective costumers from which they could acquaint themselves with the house-style of the workshop and make a choice of the products on offer and calculate prices. An album with master copies could further easily be transmitted from master to disciple, which thus established a painting-lineage based on the repertoire of a famous local master.

The Junkunc Album neatly fits a commercialised working environment, in which designs of earlier times had evolved in an independent product for studying, transmitting, and
dealing in paintings. The Junkunc Album dates to the Ming – it contains a depiction of a Ming blue-and-white vase and several divine marshals depicted in the album are not known in sources before the Yuan – and although evidence is lacking that such design albums were in use before the Ming, the increased economic competition between workshops and the closer organisation of guilds from the Yuan-Ming period, as discussed in the section above on workshop organisation, would suggest that the use of design albums started in the Yuan period.

Having analysed the pictorial tools of wall painters by dividing a Heavenly Court painting in its compositional elements and linking these to the various practices involved in making sketches and designs – sketches representing the intermediate stage between model and final product and designs often the models themselves – it is now possible to apply this knowledge to the four Heavenly Court paintings of this study and investigate how the painters and designers conceived and built up their compositions.

### 3.3 Mural design

In this section I wish to discuss how painters conceived a design for a Heavenly Court painting and what models and pictorial devices they applied.

In the above, I have argued that painters worked out a mural design on the basis of compositional elements. I devised three basic compositional elements (detail, figure, group) constituting a preparatory drawing which are combined in order to achieve one complete design, and argued that the group composition formed the largest module in the mural design. Since we know that Heavenly Court paintings exist in two versions, one in wall paintings and the other in hanging scroll paintings, I further want to argue that the format of the hanging scroll painting functions similar to a group compositional element in drawings, and thereby forms the structural basis on which painters would design a Heavenly Court painting. In other words, in its most simple and basic format, a design of a Heavenly Court paintings is constructed by combining or ‘shifting around’ hanging scroll paintings. I will attest this in this section.

Importantly, the group composition or the hanging scroll format also overlaps with the iconographic unit of one or more deities in a Heavenly Court painting. Since a Heavenly Court paintings consists of a selection of deities represented as a fixed unit, painters would
arguably adapt their designing process to this modular structure of fixed iconographic units. It is further significant to note in this respect that painters and their workshops were versed in both wall paintings and scroll paintings. This is amply demonstrated by the biographies of wall painters and the collections of hanging scroll paintings listed for example in the *Xuanhe huapu* (see Appendix 2.2). The designs of the sketches prepared in the Junkunc Album could also equally be applied to either wall or scroll paintings.

The issue at stake in this chapter is however not to ascertain that mural designs of a Heavenly Court have a modular character, but to understand how painters would combine these elements in a visually attractive design. To use a simple metaphor, understanding that Chinese cuisine is a combination of a series of fixed ingredients and spices does not yet mean that one understands how the Chinese chef cooks a tasty dish.

With regard to the combination of elements in a mural design, it is possible to discern three different types: loose, joined, and integrated. Considering that the most basic format for a Heavenly Court design would, hypothetically speaking, consist of group compositions on independent hanging scrolls or preparatory sketches which are then transferred to a wall painting, the three types do not represent fixed formats but rather a gradual phasing from a loose to a fully integrated audience of figures. In order to understand how the structural elements are integrated – the secrets of the chef so to speak - we will pay much attention to the compositional devices employed by the painters to integrate independent groups into one pictorial space. Needless to say, the degree of integration is also a strong indication of the quality of the painters, not meaning of course that one painting is more valuable or of greater interest than the other. The two are mutually dependent.

On the basis of surviving examples of Heavenly Court wall paintings and designs, I will discuss now the three types of mural designs and the compositional devices used by the painters to connect the various elements. Sculptural or incomplete representations of a Heavenly Court are left out of the discussion. For the particular location of deities in a mural, painters relied on a conceptual framework based on liturgical practices. This framework has been discussed in the previous chapter.

**Loose design**

In a loose design, the groups of figures are unconnected and structured, almost literally it seems, by moving sketches or hanging scroll paintings around the wall.

An example of a loose design is the Heavenly Court painting at the Nan’an in Yaoxian (Shaanxi) (Plates 6 and 7). Each group of deities is depicted individually and is pictorially
unconnected, except for the clouds which seem to be the only pictorial device the painters used to “cement” the independent groups together. Although the Nan’an murals represent a very basic design, the painters were able to turn the loose design to their advantage by creating a three-dimensional effect: because only the upper bodies of the figures in the top register are depicted, it is as if the figures are approaching from a distance in the clouds. When the two rows of figures would be stacked up on each other such as in the Dadao guan murals in Dingzhou (Hebei) (Fig. 5), another example of a loose design, this sense of space would be lost.

**Joined design**

In a joined design, the structural elements are not depicted independently but are seemingly linked in one continuous row. Yet, the format of a group sketch or hanging scroll painting that served as its model remains directly recognisable and structurally distinct in the design.

The Toronto murals are a fine example of a joined design (Plates 4 and 5). The audience of deities forms two continuous processions moving in a northerly direction. However, the individual groups of deities, although not separated by clouds, are still arranged in distinct clusters of figures. In fact, the procession could be cut into four segments, each represented fictively by one hanging scroll: first one painting of two divine marshals, then a group of subordinate deities, followed by a group of central deities assisted by attending deities, and concluded again by one or two paintings of a group of subordinate deities. Each painting also corresponds to one iconographic unit. Quite interestingly, the groups are pictorially and structurally separated by the banners and fans on poles in front and behind the central deities, serving as pictorial lines of demarcation. The long white ribbons running from the top of the mian-crowns of the central deities (A12 and B13) to their feet, almost spanning the entire height of the mural, further act as a visual axis around which the two processions revolves the east and west walls mirror each other in this respect. These vertical lines remain important pictorial devices for structuring a mural composition in other Heavenly Court paintings as we will see.

The painters of the Toronto murals employed an interesting compositional device to connect two separate groups of figures. On both walls, one subordinate deity (A6, B5) seemingly takes the role of a Daoist priest and turns around to bow before the altar table carried by two young maidens in front of the three central deities. The reversed pose in contrast to their fellow subordinate deities and the action of bowing towards the central deities links the two groups in a very literal way.
The Toronto murals also seem to employ another compositional scheme beside that of hanging scroll paintings. The placing of the three central deities in the middle of the procession, or slightly before the middle in keeping with the architectural layout of the hall that presumably had a central altar niche occupying the rear part of the hall and blocking the north end of the mural from view, is conspicuous. The painters could as well have opted for arranging the six central deities over the entire wall such as in the Yongle gong murals, but they did not. Although this arrangement was perhaps dictated by the modular use of hanging scrolls, another formula seems to be in play in this case. This particular visual arrangement creates a triangular effect caused by the large central deities depicted in the centre flanked by groups of smaller sized subordinate deities, and is witnessed not in other depictions of procession scenes such the Wu Zongyuan scroll (Plate 12) or the Cui Fen tomb murals (Fig. 22). Rather, it is very reminiscent of Buddhist Paradise scenes. Buddhist Paradise scenes of the Yuan period always depict one central body flanked by two large bodhisattvas and various groups of subordinate deities on further distances. The composition of the Buddha Assembly or Paradise scene is also constructed in the form of a triangle, in which two compositions of a Paradise scene mirror each other on opposite walls of a temple hall. Perhaps the painters of the Toronto murals were better versed in depicting Buddha Assemblies and adopted this format, although still using the structure of joined hanging scroll paintings, and assimilated it with the classic procession scene?

The Heavenly Court painting in the Three Purities Hall of the Yongle gong is also illustrative of a joined design but with strong elements of an integrated design (Plate 3, Drawings 1A-C). The main structure of the design is dictated by the large images of the central deities distributed in even spaces over the walls and mirroring each other on the east and west walls. This kind of distribution of central figures is already found in the imperial donor scenes of the fifth and sixth centuries. The images of the central deities (I-VIII) in the Yongle gong murals occupy the entire height of a wall, and like the Toronto murals, are visually demarcated by the vertical lines of the banners and fans to their left and right as well as by those of their thrones. The only two central deities without thrones (I and II) depicted on the two outside walls of the central altar niche are visually reinforced by axially located white ribbons running from the top of their mian-crowns in a long line to the bottom of the mural.

58 Compare for example the murals of the Guangsheng si and Xinghua si, now on display in various North American museums.
59 Perhaps such central images are pictorial substitutes for statues since the paintings of the eight central deities belong ritually speaking to the three statues of the Three Purities in the central altar niche. Compare for example this layout with the layout of the sculptural representation of a Heavenly Court of the in Cave 4 on Nanshan (Sichuan) where all the central deities are placed in the central altar pillar-niche rather than on the side walls.
These two emperors are not flanked or demarcated by banners or fans. While the white ribbon of the South Pole Emperor (I) runs from top to bottom in a straight line, that of the Emperor of Eastern Efflorescence (II) spreads to the side but is complemented by the double white ribbons running down from his belt, thus varying on a compositional device that must have been a quite common technique not only to draw attention to a figure (the white colour is very effective in this respect) but also turning this figure in a visual axis around which the other figures revolve evoking a sense of height and majesty. The repeated vertical lines define the compositional structure of these joined designs, demarcating the segmented spaces of the group of figures.

The groups of subordinate deities in the Heavenly Court painting of the Yongle gong are however fully integrated inside their segmented spaces and thus demonstrate an example of a combination of a basically joined design with an integrated design. Packed in four or five rows on top of and behind each other, each iconographic unit is assimilated in the larger group, and it is hardly possible to see any hanging scroll formats in the arrangement and combination of these individual groups. The members of each group are positioned in constantly varying ways, and it is mainly iconographic distinctions in crown and gown, colour, or attributes that sets one group apart from the other. In this massive audience of figures crowding all four temple walls from back to front, the problem faced by the painters is not how to link separate groups but how to differentiate them. Although to the modern eye these differences may be minimal, mostly because of our lack of iconographic reference material, the painters have succeeded in their task most remarkably.

Interestingly, the Yongle gong murals contain the same compositional device of employing a subordinate deity bowing in front of a central deity (101, 206) as in the Toronto murals to create a link between a group of subordinate deities and a central deity. However, in the case of the Yongle gong Heavenly Court painting, the subordinate deities have no obvious divine identity and clearly re-enact the roles of the Daoist priest paying homage to the Heavenly Sovereign (IV) and Jade Emperor (VII) respectively. The bowing figures are only found on the west side instead of on both sides as in the Toronto murals, which seems more in key with ritual practice. During the ritual, the Heavenly Sovereign on the northwest wall symbolises the Gate of Heaven in the traditional altar layout and the priest would actually bow in that direction. The figure depicted (101) is also dressed as a priest. The Jade Emperor is considered the head of the divine pantheon from the Song dynasty onward, ruling in heaven as the Chinese emperor rules his bureaucracy on earth, and would be worshipped as such in
Daoist liturgy. The bowing figure (206) is however an official and not a priest, perhaps because of this bureaucratic connection.

**Integrated design**

In an integrated design, the groups of figures are assimilated in one composition spanning the entire width of the wall, and apart from their iconographic markers the deities are no longer directly recognisable as a distinct group.

The Wu Zongyuan scroll is a design for of a Heavenly Court painting with an integrated design, certainly an aspect bespeaking the high quality of its original designer. It lacks the groups of subordinate deities found in so many other wall paintings, but the presence of warriors, a music ensemble and groups of court ladies and male attendants would similarly suggest a structure in groups, and the Zhang Fang anecdote mentioned above who was responsible for a music ensemble in the Yuqing zhaoying gong would corroborate such a view. The integrated character of the Wu Zongyuan scroll is reflected in several elements. In contrast to the Toronto murals which equally depict a moving procession, the two main central deities (a third one, identified in the C.C. Wang Collection scroll as the Mulberry Emperor, fusang dadi 扶桑大帝, is much smaller), in the Wu Zongyuan scroll are not vertically delineated or pictorially separated from their accompanying figures. All the figures in the procession take ever-changing positions and poses, directions that are further reinforced by the changing directions of swords, fans, banners, canopies, the tree branches in the background, and the emphatic billowing sashes and sleeves. The overall forward tilting position of many of the figures and attributes, together with the dancing movement of the drapery folds result in a progressive forward movement of the design, which further contributes to the cohesion and assimilation of the figures in the general design. This motion in one direction acts as a unifying principle for the entire composition.

The Beiyue miao murals represent another example of an integrated design (Drawings 3A and 3B). Despite the fact that the groups of figures are separated by clouds, as in a loose design, and distributed in small uneven clusters over the surface of the walls, the painters were able to interconnect the figures of the separate groups through the applications of a great variety of compositional devices. Allow me to attempt to indicate the major compositional devices.

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60 The status of the Jade Emperor was elevated in the eleventh century during the ritual reforms introduced by the Song statesman Yang Jie changing an important ritual closing formula. *Wushang huanglu dazhai licheng yi* DZ 508, 16.3b-5a.
One, vertical lines. Vertically held spears and halberds not only demarcate the boundaries of the assembly depicted on the lower register – the rear guards on the west wall are, by way of variation, found in the donor group in the top register - they also link the bottom and top register by pointing to focal deities placed below or above them. In addition, the spears and halberds of the front guards demarcate the axial line of the composition which is divided into a landscape in the first half and an audience scene in the second half.

Two, diagonal lines. Diagonal lines further connect the upper and lower registers. Sometimes these diagonal lines are represented literally such as the flag of the demon above the Official of Earth on the top-right east wall, or the branch of the lady descending from the donor group on the west wall, but in other cases they are represented by movement. Diagonal lines are for example represented pictorially in the streams rushing down through the mountain cracks, or the dragon on the east wall descending through the clouds. The direction suggested by the movement of the Official of Earth group visually enhanced by the streaming flag above him and his trailing sashes, or the Official of Heaven group which diagonal movement is reflected in the direction of the spear of the final guard, also represent figurative diagonal lines in the mural design.

Three, eye contact. Eye contact is another major compositional device used by the painters creating various diagonal lines linking figures and groups of figures. A central position in these scheme of eye contact is taken by the so-called Quyang Demon, depicted on the top centre of the west wall; with one hand held over his eyes he looks down sideways. A bearded immortal in the donor group responds to his gaze. The three figures descending from the donor group are met by the eyes of the deity of the Sacred Peak of the South who just turns his head. On the opposite wall, it is the Official of Water who looks down and who finds his gaze answered by a banner guard below him. The Official of Earth seems to have eye contact with a figure interspersed in the clouds in the centre of the composition. Almost all other figures also seem to fixate on some other person – rather than just simply standing in obedience and watching north in three-quarter view as in standard Heavenly Court paintings - and although unanswered, these figures create new lines or reinforce existing diagonal lines.

Four, wind. The strong wind blowing from the north in the mural design, and evinced by the floating robes, sashes, flags, beards, and banners, is the source of all movement and direction in the mural design, and therefore its connective principle.

Rather then relying on one compositional device, the painters adopted them as parts of one unified programme. If all the directional lines are followed, the whole composition seems to be in a spiralling motion. This spiral starts at the north end of the wall, moves across the
upper register of the mural, and reaching the south end of the mural it is countered and directed downward to the lower register, where it then continues to the centre again being sent up, moving further in an infinite circling motion. If imagined in the three-dimensional space of the temple hall, the murals become one whirlwind of motion that gravitates to the centre of the hall, the exact location where the Daoist priest performs his ritual and fuses the cosmic powers of the outer universe and his inner body, which is exactly imagined as a whirlwind.\(^\text{61}\)

The Beiyue miao murals also reveal another important aspect of mural design not readily encountered in the previous paintings, namely architectural layout. Undoubtedly prompted by the huge size of the temple walls, the painters of the Beiyue miao murals succeeded quite effectively in adapting their design to the architectural limitations of the hall. The hall is very high, the light is obscure, and the view is partly blocked by the walls of the huge central altar niche spanning almost the entire width of the rear part of the hall. The mural design was adapted to this layout. The division in a north and south part of the mural, as demarcated by the axial centre lines of the spears and halberds of the front guards, is matched by the division of architectural space of the temple hall: the south part with the audience of deities parallels the ritual area, and the landscape scenery of the north part parallels the central altar niche occupying the rear part of the hall. These north parts are evidently darker and blocked from clear view; although painters could have designed an audience of figures crossing the entire width of the wall, they instead adapted their design and made it fit to the best possible extent to the architectural layout of the hall.

In addition, the painters used specific colouring techniques to remedy the problems of the dark corners. Although the generally darker landscape occupies the obscure rear end of the wall, the painters depicted the flowing water stream in bright white colours, visually suggesting the breaking out of a vital life source from the dark regions of nature. Furthermore, the height of the murals (over seven meters) causes the upper areas, especially towards the north part, to be difficult to see with the naked eye. In order to attract the attention of the viewer to these high areas, the painters sprayed the bodies of the two dragons and that of the Quyang Demon with gold dust, thus making them twinkle like stars in a nightly sky. The whirling draperies of the Quyang Demon are painted in white, further allowing the figure to break out from the gloomy reaches of the hall.

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\(^{61}\) This exercise remains entirely imaginative since viewing the murals in this way is impossible. The hall is too wide and the murals are partly blocked from view for a person standing in the centre of the hall to see the entire mural design. Perhaps a priest could when he first memorised and then visualised these murals, but I doubt if this ever happened this way, or if it was even intended as such. Rather, I surmise that the murals were designed with such visualisations in mind, suggesting that the visualisations were the source of the paintings instead of the paintings the source of the visualisations in Daoist liturgy.
The whole design of the mural breathes the air of an extremely talented painter, or group of painters, who in addition should have had an intimate knowledge of Daoist ritual. On the basic structure of a, principally, ritual design containing the Five Sacred Peak deities in the lower register and the Three Officials accompanied by two groups of subordinate deities in the upper register, the painter was able to integrate a sub-structure of continuous movement and varying directional lines, resulting in the highly accomplished feat that all the figures in the design are connected and participate in one visual spectacle taking place before the viewer’s eyes. Despite these eminent features in design, the Beiyue miao murals show a very basic colouring and a sober application of decoration techniques – for instance, blue pigments are the most expensive and these are almost entirely absent in the murals, with the exception of the dark blue of the Northern Peak deity’s robe – which rather suggests that even though an excellent workshop was selected, the painters had only mediocre means at their disposal.62

This chapter has mainly discussed practical issues of how Heavenly Court paintings are designed, the working procedures of painters and their artistic choices and restrictions. Although the painter’s practice can explain many issues surrounding the design and composition of a Heavenly Court painting, the selection of its subject matter, i.e. the choice of the deities and their representation, lay in the hands of the patrons commissioning the painting. How Heavenly Court paintings were personalised according to the wishes of the patrons is discussed in the following chapter.

62 A possible explanation for this contradiction may be that the painters depicted an older design – as suggested by the ritual layout – relying on designs that were preserved at the temple or at court. In addition, the absence or sober application of expensive blue pigments indicate that the murals were painted in a period that such pigments were not easily available, mainly because blue pigments were imported from Afghanistan. The reconstruction of the Beiyue miao in 1270 in northern China falls into such a period of great Mongol warfare and social and economic distress.