

# No “painting by numbers” Khuwy’s polychrome wall decoration at Djedkare’s royal cemetery

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## ABSTRACT

The mastaba of Khuwy at the Djedkare’s royal cemetery at South Saqqara is one of the earliest attested decorated burial chambers. The very well-preserved wall paintings on low relief in the antechamber of the substructure bear testimony to the high standard of this particular form of art already in the Old Kingdom. In combination with the iconographic concept and composition of the chamber, Khuwy’s paintings offer a very rare opportunity for an in-depth study of the painting process and the art techniques of this period. A short preliminary study has already managed to record some specific painting practices used in the antechamber. It is evident that the painter(s) responsible for the decoration of the antechamber were particularly interested in rendering details. Their work is characterised by a specific use of different colours and their shades in combination with skilful execution of painted and drawn details particularly in the depictions of the textures of the represented objects and animals.

## KEYWORDS

Old Kingdom – South Saqqara – Djedkare – mastaba – Khuwy – decorated burial chamber – wall paintings

لا “رسم بالأرقام”

المناظر الجدارية الملونة لخوى بجبانة جدكارع الملكية

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## ملخص

تعتبر مصطبة خوى التي توجد بالجبانة الملكية لجدكارع في جنوب سقارة واحدة من أوائل حجرات الدفن المنقوشة. حيث تشهد مناظرها الملونة ذات التنفيذ عالي الجودة ودرجة الحفظ الجيدة، والتي نفذت عن طريق النحت البارز بالحجرة الأمامية من البناء السفلى من المصطبة، على المستوى الفني الرفيع لهذا المثال الخاص من المقابر والذي ظهر لأول مرة خلال عصر الدولة القديمة. وتوفر مناظر خوى عند دمج مفهومها التصويرى وتكوينها، فرصة نادرة جداً لإجراء دراسة متعمقة لمراحل الرسم والتقنيات الفنية المتبعة خلال تلك الفترة. وبالفعل نجحت دراسة أولية قصيرة في تسجيل بعض ممارسات الرسم المحددة المستخدمة في الحجرة الأمامية. ومن الواضح أن الرسام (أو الرسامين) المسؤولين عن زخرفة الحجرة الأمامية كانوا مهتمين بشكل خاص بإظهار التفاصيل. حيث يتميز عملهم باستخدام ألوان مختلفة محددة وظلالها جنباً إلى جنب مع التنفيذ الماهر للمناظر ورسم التفاصيل، لا سيما في تصوير الصفات المميزة للمناظر والحيوانات الممثلة.

## الكلمات الدالة

الدولة القديمة – جنوب سقارة – جدكارع – مصطبة – خوى – حجرة دفن منقوشة – مناظر جدارية

The tomb of Khuwy, only discovered in 2019, is located in the royal cemetery at South Saqqara in close proximity to the pyramid complex of Djedkare (Megahed – Vymazalová 2019). The wall paintings on raised relief that have survived in the antechamber of the sub-structure are among the earliest examples of decorated burial apartments of the Old Kingdom (Kanawati 2010; Megahed – Vymazalová 2019: 42–47). This small rectangular chamber and its wall decoration are in a remarkably good state of preservation, still showing the outstanding quality of the mural paintings (fig. 1).

Since the iconographic layout of the antechamber has already been described by the excavators in a preliminary report (Megahed – Vymazalová 2019: 42–45), it will not be repeated here in detail. Instead, the following remarks will provide a preliminary classification of the paintings themselves as well as some representative examples of painting practices and the skilful rendering of particular motifs. The observations below are based on thorough photo documentation. Because of the COVID-19 pandemic in 2020, an autopsy<sup>1</sup> of the wall paintings in the tomb was, unfortunately, not possible. Therefore, this analysis can only be considered as a preliminary note and starting point for further in-depth studies.

## INTRODUCTION

The wealth of the preserved wall paintings from the Old Kingdom has not yet stimulated any comprehensive research on the technique of mural decoration and related painting practices. Only the fragments from the tomb chapel of Atet depicting, among others, the renowned “Meidum geese” (Egyptian Museum, Cairo, CG 1742; Davies 1936: 4–5, Pl. I; Harpur 2001: 77–80) have been discussed in detail and even called the “pinnacle of technical achievement, which was never afterwards surpassed” (Davies 1936: XXII). Nevertheless, most of the other Old Kingdom mural paintings and paintings on relief – despite being numerous – are still insufficiently studied. Specifics such as painting supplies, the work processes applied, the use of pigments or specific painting practices in non-royal funerary chapels are much less explored than the evidence of New Kingdom wall paintings at Thebes (for an overview, see Davies 2001; Madden – Tavner 2018). Only very few publications on Old Kingdom tomb decoration discuss the topic of artistic production while also including wall paintings (Williams 1932; Smith 1949, 263–272; Harpur 2001: 159–177). Even with regard to the numerous decorated burial chambers of the late Fifth and early Sixth Dynasty, their wall decorations were mainly studied in terms of iconography and the related chronological implications (Bolshakov 1997: 112–120; Dawood 2005; Kanawati 2010; El-Tayeb 2014).<sup>2</sup> Against this background, the newly discovered tomb of Khuwy with its well-preserved and striking paintings in bright colours offers exceptional prospects for a better understanding of painting practices of the Old Kingdom.

Ancient Egyptian wall paintings on flat or textured ground are generally made using the *secco* technique; there are only very few known examples of *buono fresco*, such as certain floor paintings from Amarna (Franken 2015: 42–43). The well-documented Theban paintings were mostly created through the successive application of multiple layers of material, mainly

1 As named by Winckelmann, referring to an examination of the original artwork, not based on studying any photography or drawing (Kunze 1999: 12).

2 A rare “technical” study of the mural painting was executed in the burial chamber of Mereruka (Shoeib – Aboelala – Mansy 2017).



**Fig. 1** The painted antechamber of the tomb of Khuwy with a view of the south wall (photo Djedkare Project, S. Vannini)

several coats of plaster and a thin stucco primer (Madden – Tavier 2018: 120–124). Another traditional image carrier is the mud plaster made of the *mouna* chaff mix (Madden – Tavier 2018: 121), although it produces a much less smooth and sophisticated painting ground, hence leading to somewhat inferior quality in details. At Saqqara, the *mouna* plaster is well attested from the Old to the New Kingdom.<sup>3</sup> However, most decorated burial chambers and the Old Kingdom cult chapels document a different painting technique directly on bedrock or curtained blocks and not on plaster or *mouna* layers. In the tomb of Khuwy, the painting ground

<sup>3</sup> For the Old Kingdom, cf. e.g. the examples in Smith (1949: 245–246). A more recent discovery at Abusir South is the tomb of Hemshezemet (AS 82, Dulíková 2019). For the New Kingdom, see the overview by Martin (2001), complemented by the later discovered Eighteenth Dynasty vaulted chapels of Meryneith (Raven – Walsem 2014: 130–135, 139–149).

in the antechamber is constituted of fine limestone casing. These blocks were first decorated by the sculptors in low relief of striking quality in their carved details. Following this first work process, the reliefs were completely coated with polychrome paint layers, most likely by a different group of artists (Williams 1932: 20; Kanawati – Woods 2009: 27; Pieke 2011: 216). A section of the east wall has almost entirely lost its colour coating and consequently exposes all details of sculptural work (fig. 2).



**Fig. 2** A detail of the east wall with visible details of relief cut due to the loss of polychrome layers (photo Djedkare Project, S. Vannini)

It is worth mentioning all the tiny parts and miniatures defined by relief cut. The time-consuming stone carving was executed in full awareness that shortly afterwards, the brushed-on polychrome layers would conceal the better parts of the haptic outlines. Because of the subsequent painting process, the main emphasis of the carved motifs was put on their outer forms, with most parts of the engraved inner details being later invisible. Instead, the painter(s) defined new and often different interior contours by colours and brush strokes. This twofold work effort directly underlines the significance of these images at several levels – not only concerning their meaning (content) and intended purpose for the afterlife. Obviously, they were also important in terms of pure material quality and artistic value, even if both might be completely invisible for any beholder.

## GENERAL REMARKS ON THE PAINTING PROCESS

Based on current research findings, Khuwy's artisans and artists followed the established methods employed in Old Kingdom relief and painting (Smith 1949: 244–272; Bussmann 2000). Generally speaking, the techniques of the guidelines and preliminary drawings are well-known as the starting point of tomb decoration and well-attested in several Old Kingdom monuments (Williams 1932: 3–15; Wenzel 2007; Kanawati – Woods 2009: 34–36). They are mainly used for the overall definition of the themes and motifs as well as the number, position and size of the registers, figures, *etc.* The sketches in red and/or black ink primarily serve as the basis for the sculptor's work.<sup>4</sup> As far as Khuwy's antechamber is concerned, after the process of relief decoration on all four walls was completed, the painter(s)<sup>5</sup> took the work over and applied polychromy on the previously defined ground. Painting on a sculptured wall does not require the classical sketches in red or black ink because all motifs and their interior details are already marked in relief in the stone. Nevertheless, given the lighting conditions in Khuwy's underground chamber, the painter(s) would have needed good lamps clearly to distinguish the contours defined in the few-millimetre high relief. Based on photographic material alone, it is impossible to verify or disprove whether any kind of supporting preliminary drawing lines or outlines of the motifs were used for the painting process.<sup>6</sup> Although such a work procedure is known from other tombs (Smith 1949: 244, 253; Robins 2008: 23) and even from Khuwy's, only very few spots indicate some red preparatory drawing under the paint layers, such as some of the papyrus stems as part of the palace façade decoration on the west wall. On the other hand, in this particular case, the precise details were not defined in relief. Future studies will shed more light on the precise work process of the painters and their guiding systems. However, it should be noted that the shapes of the painted objects do not always correspond to the definition of the underlying relief. In several cases, the haptic forms are only overpainted by background colour or quite different iconography. These alterations of the original composition underline the skills of the painter(s) and – at least to some degree – their creative freedom in details. Indeed, the artist(s) were not obliged to “paint by numbers” (to apply colours to the forms already carved in relief), as attested on north, south and west walls. Some of these modifications in polychromy might be interpreted as the painter's sloppiness or laziness, particularly when lotus flowers on top of several vessels or vegetables under a table were not rendered in colours but only overpainted in background

4 Compare *e.g.* the contemporary Saqqara mastaba of Manofer (LS 17; Ägyptisches Museum und Papyrussammlung, Berlin ÄM 1108; Zorn – Bisping-Isermann 2011: 111, Abb. 80) and the rock-cut chapel of Neferherenptah at the Unas causeway (Harpur – Scremin 2017: *e.g.* 25, 40, 47, 72, 108, 180–181, 198–199, 200–201, 204).

Concerning Khuwy's tomb, red and black preliminary drawings are still visible in some areas where the polychromy is lost or has not been applied at all, like *e.g.* on the east wall under the upper black and white frieze.

- 5 The “handwriting” of different artists can only be evaluated by the above-mentioned autopsy. It is necessary to take various factors into account, including techniques of painting, the rendering of details, the colour scheme, the beholder's perspective, the right- or left-handedness of the painter, personal tricks, and general variations.
- 6 This seems to be indicated by the base of the offering table at the north wall, but it still needs verification.

grey (fig. 3). On the south wall, the individual items in two offering stands have been widely altered, and the painted sailing boats in the registers underneath do not entirely follow the outlines of the underlying haptic forms either.



**Fig. 3** A detail of the south wall with partly overpainted motifs in grey background colour (photo Djedkare Project, S. Vannini)

Furthermore, cases of added hieroglyphic signs or short texts missing in relief may indicate the literacy of the painter(s).<sup>7</sup> Concerning the painting practice, in the current state of knowledge, it is very likely that a primer was used before the application of polychrome paint layers to prevent the valuable paint from being absorbed by the stone, but this can only be clarified by future *in-situ* investigations. Some edges of the motifs, for example the three vessels on the left in the bottom register in the northern part of west wall, seem to indicate a white

<sup>7</sup> On south and north walls, at the lower end of the first column of Khuwy's titles, a short stroke (Grimal - Hallof - van der Plas 2000: Z 1) was added to complete the title *hntyw-š*. Apparently, these corrections were made in a later stage of the decoration process, as indicated by the missing principal outline for the small sign at least on the south wall. On the east wall, the tomb owner's titles and/or names have been added only in paint in front of the two first offering bearers at the southern edge.

underlayer. It is well documented that for much later Theban wall paintings, a “pictorial coat” on plaster (Laboury – Tavier 2010: 97; Madden – Tavier 2018: 123–124) was normally applied as a starting ground for the painters. Nevertheless, it should be noted that this technique is likewise attested in several Old Kingdom tombs, such as the almost contemporary cult chapel of Per-Neb (Metropolitan Museum of Art, New York, 13.183.3). In this tomb, a fine stucco layer, the so-called white wash of calcined gypsum, was used as the painting ground on limestone relief (Smith 1949: 244, 252–253; Robins 2008: 23). According to Caroline R. Williams (1932: 21), this procedure is typical of tombs of the late Fifth Dynasty. Also Hermann Junker noted this very technique for a chapel at Giza; he also reports another mastaba, where the colour coating was applied directly to the stone (Junker 1913: 170; Williams 1932: 21). The investigation of the mural paintings in the burial chamber the Vizier Mereruka revealed the use of a light pink wash to cover up the red preliminary drawings (Mereruka: Shoeib – Aboelala – Mansy 2017: 3–4).

Regarding the brushed-on paint, previous studies mention that red pigments can be laid on the bare stone, while green can be painted on a layer of gypsum of considerable thickness (Williams 1932: 21). However, these different techniques of colour application, specifically the use of a bottom layer for certain colours, are different from the widely used priming. The use of a prime coat should be better understood as a painting technique for specific pigments utilized either to increase their adhesion or to highlight them by an undertone. In Khuwy’s tomb, it is evident that a white underlayer is used for yellow items, such as the “golden” vessels as part of the offering stocks on the north and south walls. This special treatment of certain colours might be some personal procedures of different painters.

The paint was generally applied with a number of different brushes and tools. Hardly any of them have survived from the Old Kingdom.<sup>8</sup> More information is available only from later periods, most of all the various finds from New Kingdom tombs at Thebes (Robins 2008: 25–26; Andreu-Lanoë [ed.] 2013: 144–147, cat. no. 16–21; Madden – Tavier 2018: 133–134, figs. 5 and 6). In any case, the paintings in Khuwy’s antechamber clearly testify to the use of a number of different tools from rather thick brushes for large-area application to small reeds used for delicate miniatures or tiny outlines. This is very well visible in the offering stocks in the upper eastern parts of the north and south wall and above the doorways in the west wall. These areas have the lines drawn in different widths and the paint applied to a larger area, like the background grey or yellow, black or reddish-brown vessels; compare the upper eastern parts of the north and south wall and above the doorways in the west wall.

## THE USE OF COLOURS AND LINES

In all forms of painting, colour plays a central role. The ancient Egyptians used polychromy not only for aesthetic reasons but also for the specific meaning of individual colours and their connotations.<sup>9</sup> In addition, pigments also have an economic value because of some of

8 Possibly only the so-called brush from Sedment at the Petrie Museum, London (UC31373) but its precise use is not clear.

9 Still relevant: Brunner-Traut (1977: 117–128); for a general and more recent discussion: Thavapalan – Warburton (eds.) (2019); including an update on ancient Egyptians terms: Schenkel (2019).

their costly components (Warburton 2019; Blom-Böer 2019). Polychrome wall decoration thus showed the high social status of the patron who ordered the decoration of the tomb.

The pigments in Khuwy's antechamber seem to follow the traditional conventions of Egyptian paintings (Jaksch 1985; Lee – Quirke 2000; Zatorska 2010: 213–215; Madden – Tavier 2018: 125–132). They comprise all common basic and pure pigments such as black, white, the natural earth colours red and yellow, as well as the special pigments green and blue. In addition to the primary colours, also mixed variants were employed, leading to a wide range of beautiful nuances, which can be found on all four walls. A good example of the shades and various tints are the earth colours, which oscillate from red to brown, and from orange to yellow or ochre. Variations of colours are very well visible also for green, where the different ratios of mixing make it possible to vary the tone from very bright to a rich, darker one. The use of various colour intensities even for the same motif might be explained by a different pot at hand for the artist(s), who were painting one area of the wall at a time. This is well reflected in the different tones of green for the main titles of the tomb owner on the north and south walls (Megahed – Vymazalová 2019: pl. 1). In the latter area, these hieroglyphs have a lighter tone of green in comparison with the darker colour directly to the left of the inscription for some of the vegetables in the offering stock. There are also different tints of blue attested, just like the green pigment, which can appear rather coarse. Some of the colours used are very thick, while others are rather liquid in certain spots, which is partly directly associated with the pigments. Particularly Egyptian green and blue are regularly rather grainy and have a different texture from the other pigments. This documents the process of painting in work zones. There are even small areas where colours dropped from the brush as can be seen on several spots on the west wall (fig. 4). For instance in the north part of the west wall, a long drop of green paint is running over the beige-brown loaves of bread under the first offering stand in the middle of this upper register with offering stocks. Furthermore, rather liquid colours can be observed at the top strip of the palace façades, where the upper layer of light green is running down and produces various drips.

The application and layering of colours are generally rather flexible processes, adapted for each situation within a monument and prevailing working conditions (Smith 1949: 254–255). Also in Khuwy's chamber, diverse chronological order for colour application is attested, seemingly adapted to the respective conditions and needs in that specific area of the wall. As far as the current state of knowledge makes it possible to understand the evidence, the techniques and chronology of the paintings were flexible, with the principal contours and inner details being the last steps, as also attested in many other monuments.

Following the overall principles of decoration, the dado of the chamber is painted with monochrome colour stripes in black, yellow, and dark red, which is typical in non-royal tombs of the period. This colour scheme for the bottom parts is even applied to the west wall and the lower part of two large palace-façade false doors (Wiebach 1981: 16; Jánosi 2000: 460–461), which are only divided from each other by a long vertical text column. The elaborated colourful pattern of the palace façades starts only above this black band. In addition, all picture surfaces are framed to the left and right by the so-called *Farbleiter* in combination with a chain-like pattern in the corners (Vandier 1964: 44 fig. 12). In the areas above both doorways to the burial chamber as part of the west wall, this traditional colour band delimits the picture plane at the bottom. The upper edges on all four walls are defined by a special black and white zigzag





**Fig. 4** The northern part of the west wall among others with liquid green paint running down over two loaves of bread (in the centre of the upper register) (photo Djedkare Project, S. Vannini)

pattern (Vandier 1964: 41–42, fig. 9),<sup>10</sup> which is also known from other monuments and might represent a very stylised blossom motif. As it is common in the Old Kingdom, the background of the image is formed by a grey surface (Davies 1936: XXIII; Smith 1949: 255). This particular layer demonstrates an uneven colour application and renders information about the paint process and several work zones of the painter. For example on the north wall there are different shades of grey visible behind and under Khuwy's figure, in contrast with the area in front of him. In addition, there is a discrepancy of the darker grey colours in the two lower registers and the area around the offering table at that wall (Megahed – Vymazalová 2019: pl. 1). Apparently, an uppermost layer of grey was painted following the iconographic concept and the composition of the walls, which is indicated by clearly visible brush strokes, following the respective forms (fig. 5). This practice is supported by the tomb owner's figures on the north and south walls, where one last layer of grey was brushed on after the red body colour had already been applied.<sup>11</sup>

The general colour scheme for all motifs follows common artistic conventions of the Old Kingdom, although Khuwy's artist(s) had the skills to play beautifully with the means of polychromy and to make the most possible use of small part design. The painting is characterised by the targeted use of colour shades and masterful execution of painted and drawn details.

<sup>10</sup> For one of the many examples from Saqqara, see the mastaba of Manofer (LS 17, Ägyptisches Museum und Papyrussammlung, Berlin, ÄM 1108; Zorn – Bisping-Isermann 2011: 115 Abb. 82).

<sup>11</sup> It is also the established technique for the background colours in New Kingdom tombs at Thebes.

Through these deliberate choices made by the artist(s), the medium of painting achieves some striking compositions. Among other things, the specific use of colours and detailed drawings enhances the effects of symmetrical groups or nearly equal groups, especially for the different offerings displayed on the north, south and west walls. A particularly striking and very rare case of shading is represented by the loaves of bread on the two offering tables on the north and south walls. The colours merge harmoniously from very dark ochre or orange-brown at the top to strong yellow at the bottom.

All human figures (male without exception), including the two large-scale representations of the tomb owner, follow the general artistic conventions of the time, using dark red, black and white. As is common, Khuwy's figure is visually distinguished by specific and more colourful iconography. In his case, the otherwise reduced colour scheme is complemented by green, blue and yellow for Khuwy's jewellery (figs. 1 and 5) and garment. The elite costume includes a prominent kilt with yellow areas and polychrome broad *wsh*-collars. It is worth noticing the diverse shades of red for the skin colours of both large-scale figures. Actually, most of the colours on the north wall have a darker and richer tones, clearly indicating some different mixtures of pigments.



**Fig. 5** A detail of the north wall attesting several layers of grey, which outline the tomb owner's figure (photo Djedkare Project, S. Vannini)

In general, it can be stated that in comparison with other walls, the paint work on the north wall seems somewhat less accomplished and reveals the application of stronger colours with slightly thicker brushes. Some details – like the yellow of the gala-kilt or the low yellow table with three vessels on it – appear to have been made more quickly than on the opposite, iconographically directly mirroring wall. The rendering of details such as the texture of two grey stone vessels and the offering table indicates less time-consuming execution than on the south wall, which clearly attests to the extensive use of several different brushes and various tints of blue. Indeed, if one compares the four walls or parts of them, there are certain differences in the execution of details. Evidently, the north wall demonstrates some less careful paint application and fewer detailed drawings than the other three walls. This may be a result of a certain chronology of the paintings or the work of different artists. Likewise, on the west wall, there are some less detailed areas – mainly on the top of the wall and on the right side above the doorway. For example, the hieroglyphic signs of owls (Grimal – Hallof – van der Plas 2000: G 17) in the first section of the horizontal inscription lack the otherwise characteristic feather patterns with black dots on the white body (figs. 4 and 6). Furthermore, none of the three horn vipers (Grimal – Hallof – van der Plas 2000: I 19) in this upper line has the short, slightly oblique strokes on its belly (fig. 4). This less detailed execution might be explained by ergonomic problems or a less careful approach due to the high position of this area (compare Pieke 2011: 225; Pieke 2015: 1794). In contrast to this evidence, particularly the central text column of the very same wall shows a remarkably fine rendering of details and especially fine line drawing of all hieroglyphs, for instance the *h*-basket and the *j*-reed or the *hr*-face (Grimal – Hallof – van der Plas 2000: M 17, Aa 1 and D 2), which are the only cases of tiny black interior drawings and a moustache in the entire chamber.

In contour drawings, black was used for many motifs, including the framing of very dark objects, such as the *t*-bread (Grimal – Hallof – van der Plas 2000: X 1) painted in a darker shade of blue. In addition, red lines are employed for the main outlines and for interior contours. Both colours are occasionally attested even for the very same image. This evidence is consistent with the painting practices in other tomb paintings of high quality, where the artists alter the principal outline colour from red to black. In most cases, this may be understood as a way to adjust the lines to the object's details (Smith 1949: 159). Also the colour of the inner contour lines has been selected for distinction from the background colour (Smith 1949: 265), which concerns many minor motifs. An example is one of the fish on the west wall, whose upper outline is black, while the lower part of the body is marked by a red line. The colours red and black are utilised for the final outlines of the several “newborn bubalis” (Grimal – Hallof – van der Plas 2000: E 78) on the east wall. The use of contours thus varies and demonstrates – just like the use of shades of colour – a certain flexibility for the same motif. Some of them do not have any outlines, while for others, the painter used red or black (cf. Nefermaat; Harpur 2001: 174). These attestations further indicate that the painters worked with only very few colours at once, not all of which might have been available at the same moment.<sup>12</sup> In general, the line drawing in the antechamber is characterised by rather delicate

12 Compare the evidence in the burial chamber of Sennefer (TT 96B) in Thebes, where the outlines for the tomb owner's figure are in several cases in black instead of red ink. The author thanks Hugues Tavier for also pointing out that the mixing of colours requires good lighting conditions. Most probably it was even necessary to do it in daylight in order to distinguish between certain colours.

outlines and precise inline execution. We can detect multiple forms of brushwork, which enrich the painting's features and enable the plain application of colour, both underlining the quality and skills of the painter(s).

## THE RENDERING OF DETAILS

Motifs in figurative paintings are transformations of real items, their interpretations or "translations", as called by Jakob Steinbrenner (2011: 57). This has an immediate impact not only on the general form but also on the choice of colours, the rendered patterns, and even the use of specific tools. What makes Khuwy's mural paintings exceptional among many other Old Kingdom polychrome wall decorations is certainly their fine execution of details and sophisticated play with the painted surface structures of the represented motifs. With recognisable technical skills, the talented artist(s) achieved a remarkably high quality of execution. Particularly the piled-up offerings on the north, south and west walls and the animal representations – or the relevant hieroglyphs – demonstrate the painting capacity of the artist(s) responsible. Indeed, the various animals are still captivating because of their marvellous rendering of skin or feather tints; above all, the colours of the birds and the fish are clearly inspired by nature. The painter(s) clearly intended to provide a rather lively expression of their feathers and skin.

The falcon, owl (fig. 6a), vulture (fig. 6b), pintail (fig. 6c), quail (fig. 6d), heron snapping fish (fig. 6g), swallow (fig. 6i) (Grimal – Hallof – van der Plas 2000: G1, 17, 43, 14, 39, 40, 51, 36) and other birds (fig. 6e, f, h) are easily distinguishable by their characteristic colours and feather patterns, exhibiting many essential details. It should be noted that many of these interior specifics are executed in paint alone. Only the well-preserved polychromy makes it still possible to find these elaborate designs, because the relief itself shows fewer details for the various motifs. For instance, vivid colours and dashes were deliberately employed to express lighter and darker shades of the plumage, particularly for the beige-brown plumage of pintails (fig. 6c) and orange-red skin of rabbits (fig. 7d), both on the east wall (Grimal – Hallof – van der Plas 2000: G 39 and E 34). In addition, certain tones of the feathers are augmented by fine lines. Black stippling on white ground indicates the flickered plumage of the *m*-owls (fig. 6a),<sup>13</sup> whereas their faces with prominent eyes are marked in bold strokes in orange and black. The upper part of the head of these birds is defined by a yellow area with brownish-red dots at the upper contour, at least in the cases on the east and west walls. The heads of the two owls in the vertical text on the west wall are further highlighted by short strokes on the yellow crown. The painter's dexterity is also showcased by the  $\beta$ -vultures (fig. 6b) on the east and west walls. Five different colours are used: various tints of blue are used on the wing; the beak and legs are in red, the face in yellow and large parts of the body in white. However, particularly the line drawing reveals the artist's talent. Short irregular strokes in red on white around the bird's neck define the characteristic ruffle. The face and beak show details in black, made using different brushes, and also the claws and the tip of the rectrix are defined by bold brush strokes in this colour. Several rows of black spots, which become larger from top to bottom,

<sup>13</sup> This feather design is also attested in other tombs, see e.g. the Sixth Dynasty tomb of Nyankhnefer-tem: (Myśliwiec – Kuraszewicz [eds.] 2010: pl. CXXXVI c, d).



**Fig. 6** An elaborate rendering of details of the painted birds: a) owl (west wall), b) vulture (east wall), c) pintail (east wall), d) quail (west wall), e) helmeted guinea fowl (east wall), f) flying pintail (east wall), g) heron catching fish, h) chick, i) swallow (all east wall) (photo Djedkare Project, S. Vannini)

indicate the characteristic feather pattern on the scapulars. Longer, bold strokes outline the lower part of the blue wings. Also the painted pintails / ducks (fig. 6c) exhibit a masterly handling of different tints, colour gradations and brush techniques. The distinct feather dress of the birds is defined by blobs and stippling of light brown. Indeed, some motifs are enhanced by the use of different painting techniques and a repertoire of brush strokes.

The attention to detail is further visible in the painting of mullets (Grimal - Hallof - van der Plas 2000: K 3) (fig. 7a); the skilful use of different painting techniques for this motif is particularly noticeable in the two images on the west wall that form part of the tomb owner's titles in the horizontal and vertical texts. Various tints of blue in combination with different widths of strokes and dabs render the iridescent fish scales in stripes. Fine, tightly set lines suggest the special textures of fins, while short strokes in beige indicate the distinct



**Fig. 7** A skilful rendering of details of diverse animals: a) mullet (west wall), b) front part of a lion (east wall), c) red hartebeest, d) hare (both east wall) (photo Djedkare Project, S. Vannini)

colour of the fish's head. It seems that this painter wished to be true to nature, most probably based on his knowledge of the fish's appearance. The very accurate painting includes not only line arrangement for the fish scales, but also the typical body shape and the orange colour of the pectoral fins. For this and other animal motifs (fig. 7b-d), diverse shades of colour and different brushes are thus masterly employed to specify the textures or suggest a particular surface structure, whereas subtler shades define the animal's patterns.

Apart from the representation of the animals, the skilful use of various brush techniques and handling of colours are further demonstrated by the stacked offerings on the north, south and west walls. By using shades and the diverse tools the painter(s) beautifully managed to imply certain textures of items (see figs. 1, 3, 4, 8, 9). The spotting technique used on the bird hieroglyphs is now used on the plucked chicken depicted on the south wall on top of the basket with offerings in the centre of the bottom register (fig. 3, second register), whose maltreated skin is defined by brown dots on dull yellow. The various shades of the yellowish beige bread on the north, south and west walls are highlighted by thick, prominent brush strokes in brown running from top to bottom. The bread also attests to the use of several superimposed layers of paint in slightly different shades. On other loaves of bread, the crust is represented by line of different colours and random blotches in beige and light brown on white ground. On the north and west walls, some offering tables include provisions in the shape of a double trapezoid, whose surface is illustrated by horizontal strokes in grey, yellow, beige and brown. These strokes, which are drawn from left to right, indicate a right-handed painter. Yet again, the execution on the north wall (fig. 9) is less sophisticated than on the west wall (figs. 4, 8) and appears rather coarse and hasty. The different vegetables and fruits are also evidence of



**Fig. 8** The southern part of the west wall with the motifs painted in great detail (photo Djedkare Project, S. Vannini)



**Fig. 9** A detail of the north wall with the motifs painted in less detail (photo Djedkare Project, S. Vannini)

the targeted use of different painting techniques. Small random blobs and contrasting colour spots, stippling or streaky lines are employed to define different surfaces and consistencies. With regard to the bunch of grapes, it is again only the southern part of the west wall (fig. 8) that displays highly sophisticated structures. Here regularly set dots in dark blue on a lighter background even represent the individual grapes.

Even the offering stands illustrate more meticulous work on the two picture planes above the doorways in the west wall. They are characterised by careful, fine brushwork; a very detail pattern is particularly evident on one offering stand in the upper register of the southern part (fig. 8). In comparison, the northern section of the west wall (fig. 4) seems slightly less detailed and confirms the observation already mentioned above. In all of these cases, it is evident that the chosen painting practice was meant to show specific textures of items and thereby directly emphasise them. On the offering tables and certain slim vessels represented on the north, south and west walls, black mottling on light grey suggests a particular type of stone with dark inclusions, such as grey granite or even anorthosite gneiss (figs. 1, 3, 4, 8, 9).

The slaughtering scenes and offering bearers in the bottom register of the east wall likewise reflect the exceptional skills of the painter(s). Random blobs and sprayed red ink indicate the blood splashing during the cutting off of the animal's front leg (compare also the examples given by Smith 1949: 270–272, figs. 98–101) and some particles falling during the sharpening of a knife (figs. 10, 11), while arbitrary blotches and casual daubs suggest the dorsal hair and bovine skin (figs. 12, 13).



**Figs. 10 and 11** Details of the slaughtering scenes on the east wall (photo Djedkare Project, S. Vannini)

For compositional reasons, the cattle with white and grey skin colour are positioned alternately with the dark-coloured cows, which are displayed with an already opened flank, whereas the white ones are not yet fully cut. The liveliness of the image is further enhanced by different colours of the skin spots, which are alternately red and black for the white bovinds. In addition, the body position of the grey cattle is different. The first animal on the right has its back oriented towards the viewer and has its flank open, while the other has its hind legs tied. Yet again, also in the case of these representations, the very detailed execution of the different figures and the specific use of various techniques of painting and drawing testify to the masterly skills of the artist(s).





**Fig. 12** The southern part of the slaughtering scenes on the east wall (photo Djedkare Project, S. Vannini)



**Fig. 13** The northern part of the slaughtering scenes on the east wall (photo Djedkare Project, S. Vannini)

## A BRIEF SUMMARY

The paintings in the antechamber of Khuwy's burial apartment demonstrate extremely sophisticated execution. Only very few paintings of comparable quality have been preserved from the Old Kingdom. Indeed, the artists responsible, the sculptors and painter(s), used their various skills with the greatest effect to highlight the individual motifs represented on the four walls. The painter(s) elaborated and enlivened the composition by means of painting and drawing, the use of colours and tints, as well as the employment of different brushes in order to render various forms of strokes. The painting on raised relief is thus characterised by a specific use of colours and their shades in combination with skilful execution of painted and drawn details particularly in the depictions of textures, for instance of vessel materials, various offerings and different animal skins. This produced some striking compositions and motifs directly enhanced by the deliberate use of these different painting techniques and a repertoire of brush strokes.

All four walls show fine execution of details and a sophisticated play with the painted surface structures of the motifs represented, even though the slightly different colour scheme

and diverse quality of details on the north wall render information on the painting process itself and indicate a certain chronology or time pressure. It is theoretically possible that the walls were executed by different painters, which is a hypothesis that certainly needs further in-depth research. Nevertheless, it can be assumed that a narrow room of this size could have been decorated by one painter alone.<sup>14</sup> He would have only needed some assistance in holding the lamp(s) and helping with painting materials or with the scaffolding. Further investigation should focus on the recurrent details of the paintings, which may lead to the identification of the precise number of the painters employed in Khuwy's tomb. The literacy of Khuwy's painter(s) is indicated by the correct addition of hieroglyphic signs or short texts missing in relief.<sup>15</sup>

On a more general basis, the quality and care of the work in Khuwy's antechamber show that painting on relief was not regarded as a secondary medium or only as a cheap and quick enhancement of careful relief-cut decoration. Yvonne Harpur (2001: 168) has raised the question of how come that a "secondary form of art" reached such remarkable standards. Yet this seems to be only our modern projection or a kind of misunderstanding of such complex works of art as non-royal funerary monuments. It is probably because of the large loss of paint layers in better parts of relief-decorated tombs and house decorations and non-funerary art not being preserved in their entirety that such an evaluation has even been discussed. Against this background, the tomb of Khuwy offers an almost unique chance to obtain a much better understanding of paintings on relief and their significance in the Old Kingdom as an independent form of art.

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14 So far only the numbers of painters in several New Kingdom tombs at Thebes were thoroughly studied. Our current understanding is mainly based upon evidences at this necropolis and from this very period. It is, however, questionable whether these findings about work organization and painting techniques can be directly transferred to tomb decoration of the Old Kingdom, particularly when dealing with paintings on relief and not on flat stucco ground. For Theban paintings of the New Kingdom *e.g.*: Beinlich-Seeber – Shedid (1987: 139–146); Shedid (1988: 95–102); Bryan (2001); Keller (2001); Laboury – Tavier (2010); Hartwig (ed.) (2013: 133–161).

15 This finding is in accordance with evidence from the New Kingdom, which attest the literacy of painters; see: Laboury (2020: 87–91); Laboury (2016).

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