

THE ORIGINAL COLOUR FINISH OF THE GOLDEN ROOM

Margriet van Eikema Hommes, Katrien Keune, Ruth Jongsma, Mariël Polman, Carol Pottasch

Pellegrini's paintings of 1718 have recently been stripped of old layers of varnish and overpaintings, so that the rich palette and skilful brushwork of the Venetian master is once again visible (figs. 133-141). Pellegrini received this commission as part of the reconstruction of the Mauritshuis in 1708-1718. In those years the monumental ground-floor salon was furnished with oak wall panelling that was designed to accommodate the paintings. Pellegrini's canvases are carefully attuned to the architectonic space. Full appreciation of the whole ensemble requires knowledge and a good impression of the original colours and finish of the architectural elements. The recent renovation of the Mauritshuis offered the perfect opportunity to investigate this matter.¹

The wooden ceiling is now painted pure white, so many visitors might take it for plasterwork. The wall panelling consists of stripped oak, of which the capitals, the majority of the mouldings surrounding the paintings and most of the decorative wood carving is gilded. The room's many gilded details are the source of its name: the Golden Room. It has looked like this only since 1951, however, the year the moss-green paint was removed that had been applied in 1927 to the wall panelling and nearly all the carving (p. 135, figs. 130-132).² Of the situation in previous years, we know that in 1890 the oak wall panelling had already been stripped and that the ceiling, which was evidently still rather dark, was painted white that year, to make the room look higher and lighter (p. 134, figs. 128-129).³ The only document informing us about the finish of the room before that time is a memorandum of 1713, which itemises a number of urgently needed works. It includes an entry of sixty guilders for 'paintwork in the downstairs salon' (see Appendix 6), which indicates that the woodwork was originally painted. During the architectural research carried out in conjunction with the 1984-1987 restoration, attempts were made to gain some insight into the nature and extent of this paintwork, but these efforts were hindered by the fact that the paint had been very thoroughly stripped in 1951. The researchers were forced to conclude with disappointment that it was 'unfortunately no longer possible to ascertain the colours with which the salon was originally decorated'.⁴

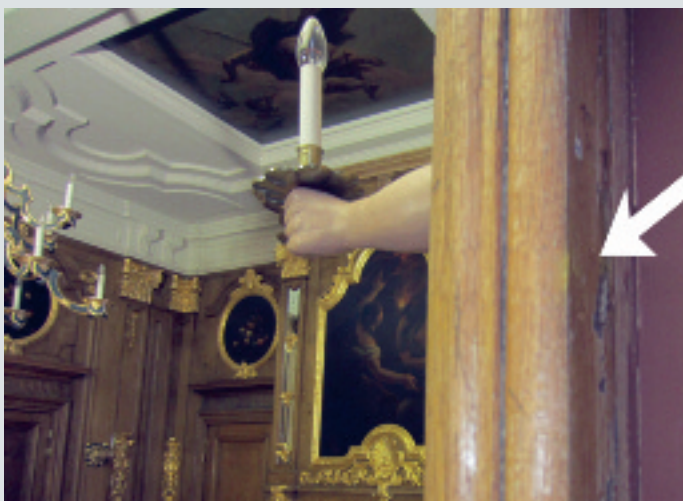
During the recent restoration, however, numerous small patches of old paint layers were discovered on the oak walls. Another piece of great good fortune was the fact that the inside of the shutter boxes had never been stripped of their paint. These now display modern imitation oak that is in keeping with the stripped walls, but they had been painted along with the wall panelling time and again since the rebuilding of the ground-floor salon, with the result that all those paint layers are preserved in these boxes (fig. 157). The gilded mouldings surrounding the

paintings and the gilded carvings were never stripped either, so they, too, contain the entire range of paint layers. This whole build-up of paint layers was also found in various places on the ceiling.

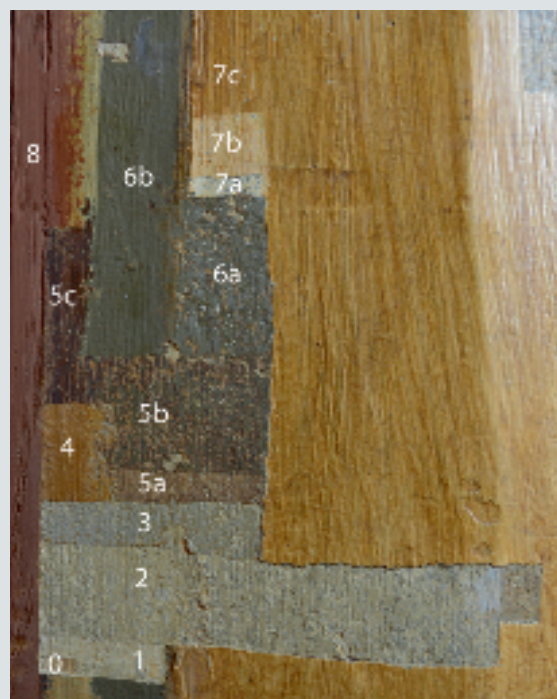
Small samples of paint were taken from these places to make paint cross-sections that would enable us to determine which pigments had been used and how the paint layers had been built up.⁵ Moreover, carefully scraping the paint, layer by layer – thereby producing a 'ladder' of successive colours – revealed the appearance of the various colour finishes (fig. 158). This information enabled us to determine rather precisely the chronology of the colours used to decorate the salon. This research into the room's colour history is still in progress, but the interim results already show that the original finish of the ground-floor salon presented an entirely different aspect than it does today.⁶

Architectural paint research has shown that the wall panelling was completely painted. Cross-sections reveal that the wood was first given a preparation layer of white chalk, to which was applied one or two layers of very light grey mixed with lead white, some chalk, a bit of fine black pigment and a little earth pigment (fig. 159). This grey is covered with a thin greyish layer, a kind of crust that mainly contains lead. This degradation layer has formed on the paint surface as a result of the exposure of the lead-containing paint to the air.⁷ Lead crusts of this kind only develop after a long time, so we may safely conclude that the light grey paint layer must have been visible for a good length of time and must therefore have been the earliest finish of the walls of the ground-floor salon. A 'colour ladder' on the inside of one of the shutter boxes shows this finish (fig. 158). This light grey was also applied to the cornice that is now painted white.⁸ The above-mentioned 'paintwork in the downstairs salon' must refer to the application of this finish. The considerable sum of sixty guilders reserved for this work indicates that it was an extensive job, given that in those days the daily wage for house-painting was just over a guilder and that the requisite materials could not have been very expensive.⁹

The light grey layer was presumably intended to imitate some kind of stone. We can deduce this from the four grisailles with trompe-l'oeil depictions of stone statues in niches. Such trompe-l'oeils were popular in the seventeenth and eighteenth centuries. In the seventeenth century, they were sometimes placed, unframed, in a shallow niche, so that they blended in seamlessly with the architecture, thus heightening the illusion of reality.¹⁰ The grisailles in the Mauritshuis are framed by mouldings, just like the grisailles intended for the large salon in Duivenvoorde Castle (1717), as emerges from a nearly contemporaneous sketch (p. 140, fig. 144). The grisailles in the Golden Room, which are executed in



157 The inside of the right-hand shutter box of the middle window. A narrow strip (see arrow) that was never stripped contains all the paint layers. This strip now displays an imitation oak finish, but earlier colour finishes are visible where the paint has flaked off. The rest of the shutter box was covered with sheet material during the 1984-1987 restoration of the Mauritshuis.



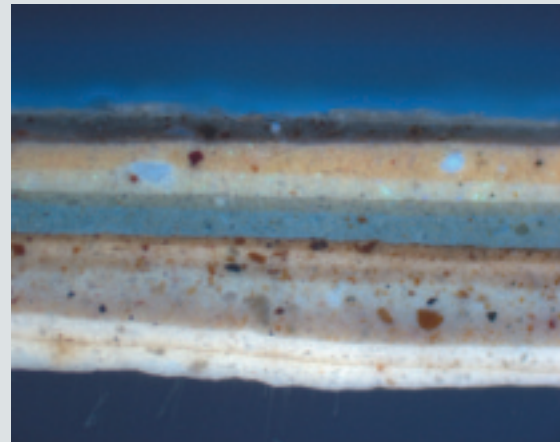
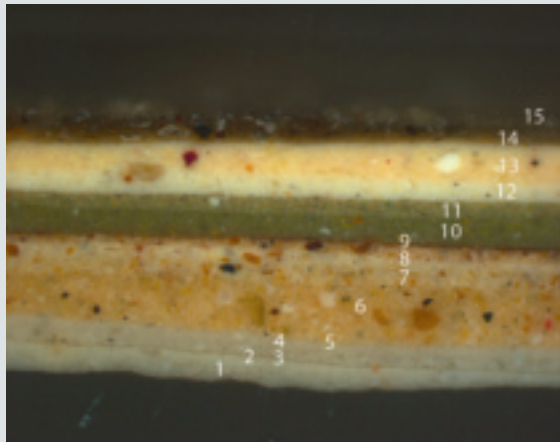
158 A 'colour ladder' of the inside of the right-hand shutter box of the window on the left shows the various stages of finish, which can be seen in the cross-section (figs. 159-160).

- 8: red-brown modern paint attuned to the colour of the sheet material used to cover the side of the shutter box
- 7c: present imitation oak finish (layer 14 in the cross-section)
- 7b: light-coloured base layer of the present imitation oak finish (layer 13)
- 7a: white preparation layer of the present imitation oak finish (layer 12)
- 6b: moss-green finish of 1927 (layer 10 or 11). A section where later paint layers have flaked off
- 6a: moss-green finish of 1927 (layer 10 or 11). A section exposed in the 'colour ladder'
- 5c: dark wood finish (layer 9). A section where later paint layers have flaked off. The imitation wood grain is clearly visible here.
- 5b: dark wood finish (layer 9). A section exposed in the 'colour ladder'
- 5a: light brown base layer of the dark wood finish (layer 8)
- 4: warm yellow finish, dating from the mid-nineteenth century at the earliest (layer 6)
- 3: cool grey finish, possibly dating from 1809-1810 (layers 3 and 4)
- 2: light grey finish of 1713 (layer 1)
- 1: chalk ground layer of the light grey finish of 1713 (missing in the cross-section)
- 0: wood

Photo: Ruth Jongsma, Bureau voor Kleuronderzoek & Restauratie.

brown-grey shades, have a light-grey base colour that Pellegrini must have attuned to the colour of the walls. Together with the walls, the grisailles thus formed a continuous illusionistic whole, whereas today they stand out against the stripped woodwork as isolated elements.

Cross-sections show, on top of the earliest colour finish of the walls, a thick build-up of later paint layers (figs. 159-160). To begin with, there are two layers of grey paint that consist of exactly the same pigments: lead white, chalk, fine black pigment and a bit of brown earth pigment. These two layers no doubt belong to the same finish. The 'colour ladder' in the shutter box shows the cool grey (tending slightly towards lilac) of the second finish, which is also somewhat more intense and darker than the first. There is no documentation to tell us when the cool grey layer was applied, but it perhaps dates from 1809 or 1810, when the Mauritshuis underwent far-reaching alterations in order to accommodate the National Library (see p. 148). On top of this cool grey are two yellowish layers containing zinc white, a pigment not produced on a large scale until 1844, indicating that these layers date from the mid-nineteenth century at the earliest. Together these layers formed a warm yellow finish. They were followed by two layers of brown – the lowest layer an opaque light brown and the top layer a transparent dark brown – which combine to form dark brown imitation wood, as can be seen in the shutter box. These layers must have been removed from the walls in or before 1890, since the records tell us that the oak panelling was waxed that year.¹¹ The next paint layer – this time a moss-green colour – was applied in 1927. The moss green was removed in 1951, but remained in the shutter box, where it was covered by the imitation oak finish that is now visible.



The very first, light grey paint layer was not confined to the wall panelling. Cross-sections show that this colour was also applied to the mouldings surrounding the paintings and all the wood carving on the walls.¹² Moreover, the wooden ceiling also received such a colour finish. The grey was found there on the large, carved leaf and floral decorations. Unfortunately, the large, flat fields in the ceiling no longer contain any traces of the original finish, because they were either thoroughly stripped or replaced by modern sheet materials. The light grey was found, however, on the relief-edged sides of some of these ceiling fields, which suggests that they were painted entirely a uniform light grey.

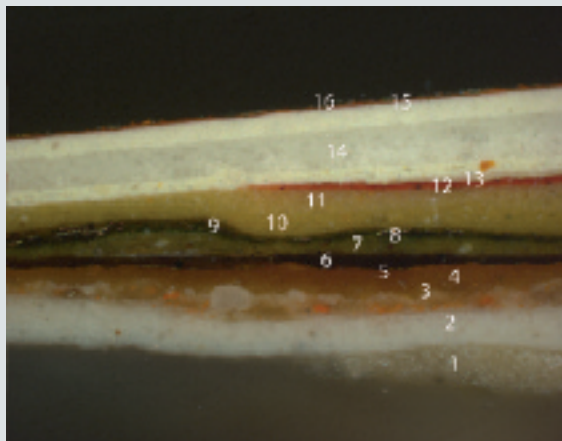
The mouldings around the paintings and some of the carvings on the walls were decorated with gold leaf on top of this light grey.¹³ Its application was probably not included in the above-mentioned sixty-guilder paint job of 1713, since gold leaf would have cost far more than that.¹⁴ Cross-sections show how the gold finish was achieved (fig. 161). On top of the light grey paint layer is a paint layer mixed with lead white, chalk and a bit of fine black pigment. The lead white in this layer was converted through a chemical reaction with the oil medium via lead soaps into red lead, which caused this layer to turn bright orange.¹⁵ On top of this is an oil-rich layer consisting mainly of yellow earth, a so-called mixtion that formed the base layer, over which the gold leaf was applied.¹⁶ The wafer-thin sheets of gold were cautiously affixed to the not-quite-dry mixtion. A mixtion gilding or oil gilding has a slightly dull appearance, which is why it was called 'matte gold'.¹⁷ The present gilding, which was applied to a base layer of red earth and alkyd resin, also has a matte appearance,¹⁸ although the original gilding must have been considerably more subtle. The present gold leaf was applied to a thick build-up of later paint layers, which greatly reduced the sharpness of the carving and also resulted in a very irregular ground layer that badly mars the present gilding (fig. 162).

Gold was found on the mouldings surrounding the *tondi* and the *grisailles*, the mouldings of the mantelpieces and their accompanying carvings, and the decorations on the pilasters.¹⁹ The capitals, on the other hand, appear originally to have been finished with pure copper and must therefore have had a red glow (fig. 163). The large carved decoration above the main entrance door, which has now been completely

159-160 Paint cross-section from the inside of the shutter box, microscopically enlarged 200x. To the left: normal light; to the right: UV light. Layers 1 and 2 belong to the earliest colour finish of 1713.

- 15: layer of wax
- 14: transparent brown paint layer: top layer of the present imitation oak finish
- 13: salmon-coloured paint layer: base colour layer of the present imitation oak finish
- 12: whitish layer: preparation layer of the present imitation oak finish
- 11: moss-green paint layer rich in binding medium, of 1927
- 10: warm moss-green paint layer, of 1927
- 9: dark brown, transparent paint layer: top layer of dark imitation wood
- 8: light brown paint layer: base colour layer of dark imitation wood
- 7: very light brown paint layer: base layer of dark imitation wood
- ♦ green-yellow paint layer containing zinc white, mid-nineteenth century at the earliest. This layer is missing in this cross-section
- 6: orange-yellow paint layer containing zinc white, mid-nineteenth century at the earliest
- 5: local, very thin lead crust
- 4: grey paint layer, possible dating from 1809-1810: lead white, chalk, fine black pigment, very little brown earth
- 3: grey paint layer, possibly dating from 1809-1810: lead white, chalk, fine black pigment, very little brown earth
- 2: lead crust
- 1: light grey paint layer of 1713: lead white, chalk, a bit of fine black pigment, a few fine particles of red and brown earth
- ♦ chalk layer of 1713, missing in this cross-section
- ♦ wood, missing in this cross-section

Photos: Margriet van Eikema Hommes.



161 Cross-section from the moulding surrounding the mantelpiece of the fireplace on the right when entering the salon, microscopically enlarged 200x, normal light. Layers 1 to 5 are part of the earliest gold-leaf finish.

- 16 gold leaf, from the 1984-1987 phase
- 15: orange-pink base layer for the gold leaf applied in the 1984-1987 phase: red earth in alkyd resin
- 14: several whitish preparation layers from the 1984-1987 phase
- 13: gold leaf, dating from 1951
- 12: red-earth base layer for the gold leaf applied in 1951
- 11: pale yellow-green layer, applied after 1942
- 10: pale yellow-green layer, applied after 1942
- 9: organic layer
- 8: layer rich in binding medium, with copper shavings
- 7: warm moss-green paint layer applied in 1927
- 6: transparent layer rich in binding medium, with strong fluorescence in UV light, containing a little bit of dark brown and red earth
- 5: gold leaf
- 4: yellowish layer, mixture for gold leaf: yellow earth and very little brown and red earth
- 3: orange but originally whitish layer: lead white (largely converted into red lead), chalk, very little black pigment
- 2: light grey paint layer of 1713: lead white, chalk, a bit of fine black pigment, a few fine particles of red and brown earth
- 1: chalk ground, dating from 1713
- ♦ wood missing in the cross-section

Photo: Margriet van Eikema Hommes.

stripped, was overlaid with copper, as was the projecting moulding just under the capitals. The consoles of the cornice – which are now painted white and, above the fireplaces, display stripped oak – and the mouldings surrounding the ceiling paintings also had a copper finish originally. The ceiling, too, was richly decorated with copper: the large, carved decorations were finished with this leaf metal on both the projecting areas and recessed parts. Even the relief-edged sides of some of the large ceiling fields had a copper finish.

It is not known why two types of metal were chosen. Copper is considerably less expensive than gold, and given that the money available for the renovation of the Mauritshuis was barely adequate, to put it mildly (see pp. 117-121), this might have been a consideration. This is supported by the fact that copper was used solely for decorations that were so high they could be seen only from a distance. Yet the choice could also have been made for aesthetic reasons. In the eighteenth century, gold and copper, like bronze, brass and silver, were often combined in decorations.²⁰ Differences in the way the metal leaf was polished resulted in varying degrees of shine. This, in combination with the use (or omission) of layers of varnish or glaze could produce numerous subtle gradations.²¹ In this large salon, which was illuminated in the evening by candlelight, the many copper and gold elements must have produced a spectacular effect (fig. 164).

Cross-sections of the carved decorations invariably show, above the gold or copper finish, a whole build-up of later paint layers, which can also be found on the wall panelling and the ceiling. This indicates that the parts finished with metal leaf were overpainted quite a few times along with the rest of the interior. For much of its existence, therefore, little gold was to be seen in the Golden Room. Only above the twentieth-century moss green do we again encounter gilding in the cross-sections, the first of which dates from 1951 and the second, which is now visible, from 1984-1987.²²

The use of gold or copper in the original decoration of the room appears to have had consequences for the colour finish chosen in later years. The cross-sections invariably show, above the copper leaf, the cool grey paint, possibly dating from around 1810, which was also found on the wall panelling.²³ This layer was preceded by a grey paint layer

containing exactly the same pigments, but more coarsely ground. This coarse-grained paint was probably necessary to cover the copper adequately, thus creating a suitable base for the finely pigmented coat on top. Both grey layers are also present on the gilded decorations of the pilasters, but not on the gold-leaf-covered mouldings of the mantelpieces and those surrounding the grisailles and the *tondi*. Nor are these two layers present on most of the carved decorations on the chimney breast.²⁴ In other words, while all the copper leaf was painted over with cool grey, most of the gold initially remained visible.

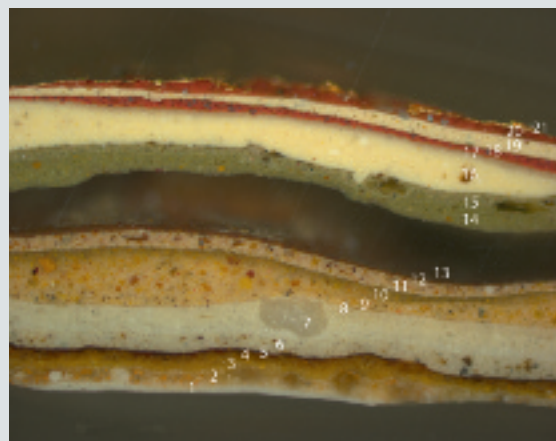
This choice seems to have been prompted by the different ageing processes of the two metals: gold always retains its shine, whereas copper oxidises and turns black after a while. That copper discolours quickly was well known early on, hence the recommendation to varnish this metal leaf immediately.²⁵ Cross-sections show that the copper leaf is covered by a thin organic layer, presumably just such a protective layer of varnish. Even so, the copper discoloured. Analysis has shown that the copper reacted with the organic layer, turning dark brown (fig. 163). The decision to overpaint the dark brown copper must have been made at the time the walls were being given a coat of cool grey paint. This caused a drastic change in the appearance of the salon, since the entire ceiling became grey, as did the capitals. Perhaps the need was felt to re-establish the balance between leaf metal and grey in the room by overpainting the gilded decorations on the pilasters as well.²⁶



162 This detail of a capital on the window wall shows the inferior quality of the present gilding, with a poorly prepared, bumpy surface and even a hair of the brush. A 'colour ladder' shows a few (but by no means all) previous stages of finish. These stages can be seen in the cross-section of the capital (fig. 163).

- 7: greyish preparation layer, and on top of it the red base layer of the present gilding (layers 19 and 20 in the cross-section)
- 6: dark brown finish (layer 12 in the cross-section). This is part of the dark imitation wood finish on the walls. This capital, however, bears no markings of wood grain, such as those seen in the shutter box (see fig. 158, marking 5c).
- 5: brown-yellow finish, which is part of the warm yellow, zinc-containing finish applied in the mid-nineteenth century at the earliest (layers 9 and 10 in the cross-section). The colour here is darker and cooler than the warm yellow in the shutter box (see fig. 158, marking 4). It was possibly intended as a colour accent.
- 4: grey paint layer possibly dating from 1809-1810 (layers 6 and 7 in the cross-section), with the copper (which has turned brown) and the brown layer of binding medium applied over the copper (layers 4 and 5 in the cross-section) shining through
- 3: orange but presumably originally whitish layer, over which the mixtion and the copper leaf were applied (layer 2 in the cross-section)
- 2: light grey paint layer, dating from 1713 (layer 1 in the cross-section)
- 1: chalk ground, dating from 1713 (not present in the cross-section)

Photo: Ruth Jongsma, Bureau voor Kleuronderzoek & Restauratie.



163 Cross-section taken from a capital on the window wall, next to the 'colour ladder', microscopically enlarged 100x, normal light. Layers 1 to 5 are part of the earliest colour finish with copper.

- 21: gold leaf, dating from the 1984-1987 phase
- 20: orange-pink base layer for the gold leaf applied in the 1984-1987 phase: red earth in alkyd resin
- 19: whitish preparation layer, dating from the 1984-1987 phase
- 18: gold leaf applied in 1951
- 17: red-earth base layer for the gold leaf applied in 1951
- 16: whitish layer, dating from 1951
- 15: cool moss-green paint rich in binding medium, dating from 1927
- 14: warm moss-green paint layer, dating from 1927
- 13: organic layer: wax? The paint sample is split above this layer.
- 12: transparent dark brown paint layer: top layer of dark brown imitation wood
- 11: light brown paint layer: base colour layer for dark brown imitation wood
- 10: green-yellow paint layer containing zinc white, mid-nineteenth century at the earliest
- 9: orange-yellow layer containing zinc white, mid-nineteenth century at the earliest
- 8: lead crust
- 7: grey paint layer, possibly dating from 1809-1810: lead white, chalk, fine black pigment, very little brown earth
- 6: grey layer with coarser pigments, possibly dating from 1809-1810: lead white, chalk, fine black, very little brown earth
- 5: dark copper-containing organic layer
- 4: copper leaf: present only locally, partly obliterated by chemical reaction
- 3: yellowish layer, mixtion used as a base for the copper leaf: yellow earth and very little brown and red earth
- 2: orange but presumably originally whitish layer: lead white (largely converted to red lead), chalk, very little fine black
- 1: light grey layer: lead white, chalk, a bit of fine black pigment, a few fine particles of red and yellow earth
- ♦ chalk ground, missing in the cross-section
- ♦ wood, missing in the cross-section

Photo: Margriet van Eikema Hommes.

The original gilding on the grisaille,²⁷ *tondo* and mantelpiece mouldings, as well as on part of the carving on the chimney breast remained visible for a long time (fig. 161). At some point it was decided, however, to tone down the remaining gold leaf, since it was covered with a paint/substance – very rich in binding medium and probably semi-transparent for that reason – which was coloured with brown earth. In 1927, the gold leaf was covered with moss-green paint.²⁸ A thin layer of copper or copper paint was applied to the mouldings, on top of the moss green.²⁹ A watercolour of 1942 therefore shows these elements in yellow (p. 135,



164 Digital impression of the original colour finish of the Golden Room. For the present situation, see fig. 126. Photo: Margareta Svensson. Digital manipulation: Lara de Moor, 2014.

fig. 132). The copper effect must have been judged unsatisfactory, since it was soon overpainted with a layer of yellow-green. This last paint layer finally caused all the remaining metal leaf in the room to disappear from view, a situation that seems to be documented in a black-and-white photograph of one of the fireplaces (p. 135, fig. 131). Metal leaf returned, however, in 1951 in the form of modern gilding on the mouldings, the pilaster decorations and the capitals. However, the rest of the carving on the walls was stripped, whereas the carving on the ceiling and the cornice was painted white.

Thus we see the Golden Room changing in appearance many times over the centuries before taking on its present look in 1951. Even though metal leaf was part of nearly all the finishes, its application was different every time. By now it must be clear that the original salon looked very different than it does today: the light grey walls reminiscent of natural stone and the grisailles formed a continuous illusionistic whole. Gilding could be seen on the mouldings around the grisailles, *tondi* and mantel-pieces, as well as on the carving on the chimney breast and the decora-

tions on the pilasters, but otherwise it was mainly copper that shone in the ground-floor salon (fig. 164) – even in many places that are now stripped or painted white.

It is known that the early-eighteenth-century reconstruction of the downstairs salon followed, on the whole, the seventeenth-century situation (see p. 131), paying tribute to the architectural concept of Jacob van Campen and Pieter Post. The results of the architectural paint research suggest that their concept also guided the colour finish. Post described the finish of ‘The Large Downstairs Salon’ in 1652 as follows: ‘the marble skilfully imitated in wood and everything decorated with gold’ (see Appendix 2). The early-eighteenth-century decoration, which also featured a stone colour on the wooden walls and carving richly decorated with metal leaf, strongly recalls this earlier description. Post explicitly states that everything in the room was ‘decorated with gold’ in the seventeenth century. In the eighteenth century, however, copper was used too – even predominantly. If Post’s original finish did serve as the guiding principle, this could mean that the choice of inferior copper was indeed based on financial considerations.