

# Reconstruction of the Cuypers Floor in the Entrance Hall

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In 2011 the lost terrazzo floor in the Entrance Hall was reconstructed as part of the integral renovation of the Rijksmuseum (2003-13). This floor, with its marble mosaic designs, is an important element in restoring the original character of the galleries in the main axis of the museum. The Entrance Hall is the only area where the wall and ceiling decorations and the original floor finish were completely reconstructed and renovated. This article examines the questions of why and how the floor was reconstructed from the researcher's perspective. The author of this article, an architectural historian at the Bureau voor Architectuurhistorie Kariatiden, the research department of Van Hoogevest Architecten (the firm responsible for the restoration of the Rijksmuseum), was involved in the research into historic structures and finishes, including research into the Entrance Hall floor, throughout the reconstruction process.

## **The Motto *Forward with Cuypers***

The ideas underpinning the reconstruction of the nineteenth-century decoration by architect Pierre Cuypers (1827-1921) were formed in the run-up to the recent rebuilding project. In 2001 a call for tenders by architects was put out under the motto *Forward with Cuypers*.<sup>1</sup> The client was signalling that the renovation of the museum had to

*Detail of fig. 7*

be accompanied by revitalization of the original Cuypers concept. After more than a hundred years of piecemeal interventions in the fabric of the Rijksmuseum, little of this concept remained in the interior. Museum galleries had been changed beyond recognition with false ceilings, new partition walls and box-in-box structures. The growing shortage of museum space was solved in the 1960s by constructing extra floor levels in the open courtyards. New rooms were made there and connected to the old parts of the museum by breaking through the historic walls of the inner courtyards. This concentration of the floor plan caused disorientation and visitors found it all too easy to get lost.

The initial thinking in terms of revitalizing the original concept was to reinstate the original 1885 floor plan and recover the spatial quality of the museum galleries. The resultant and most radical intervention of the recent rebuilding was the removal of all the later additions. The inner courtyards were dismantled and the galleries built in the 1960s were demolished. The false ceilings and later partition walls in the historic galleries were taken out. The new policy vision also prompted thoughts about reinstating the original colours and fabric finishes, provided they would not conflict with the exhibits.<sup>2</sup> In the past this argument



*Fig. 1*

The Entrance Hall as it was before the recent restoration, with the original decoration under a layer of white paint and the terrazzo floor replaced by a wooden floor, c. 1990.

had meant that the colourful Cuypers decorations in all the galleries had been whitewashed over to create a neutral environment for the collection (fig. 1). The reassessment of the nineteenth-century heritage consequently resulted in major changes to the space in the Rijksmuseum and to the colours in the interior. The nineteenth-century painted decorations were restored on the walls and ceilings of the main staircases, the Entrance Hall, the Gallery of Honour and the Night Watch Gallery. In terms of the colour scheme, the original decorations support and reinforce Cuypers' architectural concept, which can now be seen and appreciated in the main axis of the museum.

The contract for the new build was won by the Spanish architects Cruz y Ortiz – appointed as the lead architect for the project – and the commission for the restoration went to the

Amersfoort-based firm of Van Hoogevest Architecten. Gijsbert van Hoogevest was also commissioned to integrate research into the building's history into the project, to think about how to incorporate technical systems, and to keep the reinstatement of the original quality of Cuypers's concept at the forefront of the renovation plans – which also included the restoration of the original decorations. The client was thinking in terms of partial restoration of the lost decoration. However, the restoration architect suggested the complete reconstruction of the decoration in the large Entrance Hall on the ground floor.<sup>3</sup> Cuypers had designed a densely layered iconographic programme for this important museum space, originally intended as somewhere for visitors to sit and think, which only has significance in the context he designed. The many symbolic and historical images on the

walls, in the windows and on the floor together form a *Gesamtkunstwerk*; if they were only partially reconstructed, the overall concept of the iconography would be lost and they would be solely decorative.

### Iconographic Programme in the Entrance Hall

The iconographic programme in the Entrance Hall is expressed in the large canvases on the wall painted under the direction of the Austrian artist George Sturm (see also the article by J.J. Heij and R. Delvigne in this issue). Together with painted frames they cover the entire wall surface. Here we see depictions of important events and figures from Dutch history and above them symbolic scenes representing the arts and the virtues. The three windows in the front elevation have retained their original stained glass with symbolic representations of Architecture in the centre, flanked by Painting in the left window and Sculpture in the right (fig. 2). In the lost terrazzo floor there were figures, animals and floral motifs in mosaic, which formed a whole with the wall decoration and the windows. Cuypers himself described the meaning of the iconographic programme as 'human life and strife', in which the 'physical' aspect was depicted in various cycles in the floor mosaics. The 'social' aspect was shown in historical scenes on the walls and the windows, and the 'spiritual' was expressed in the top zone of the walls with the arts and virtues.<sup>4</sup> The Entrance Hall was, in fact, a microcosm of the world seen through the eyes of Cuypers and his brother-in-law Joseph Alberdingk Thijm (1820-1889), professor of art history and aesthetics at the Rijksacademie voor Beeldende Kunsten in Amsterdam.

Alberdingk Thijm had a great influence on the Rijksmuseum's iconographic programme. In 1885 he published a brochure with a detailed description of the Decoration of the

Entrance Hall and the Night Watch Gallery of the Rijksmuseum.<sup>5</sup> It described the cycles on the floor in detail. In the centre of the middle zone are the Greek letters alpha and omega, as symbols of eternity and perfection. Around them are the twelve signs of the Zodiac. Water and its inhabitants are depicted in the next, wider ring, and around them is the Earth with its plants. The square border contains the twelve months (signs of the Zodiac) and the four Rivers of Paradise: the Euphrates, Tigris, Gihon and Physon. In the corners of the square are the Sun, the Moon and Jupiter and Venus in a field of stars. Time is depicted as the cycle of the day in a quatrefoil in the centre of the east side zone, with a cockerel for morning, bees for day, an owl for evening and a bat for night. The cycle of life with the four stages of life – child, youth, man and greybeard – is incorporated in square frames in the outermost border. The central quatrefoil in the western side zone contains the four elements – air, earth, water and fire – represented by a bird, a rabbit,<sup>6</sup> fishes and a salamander. In the border of this panel the cycle of the year is depicted by means of the four seasons – a daisy for spring, corn for summer, grapes for autumn and an evergreen for winter. Perhaps not unnecessarily, Cuypers had labels in small mosaic stones placed next to the symbols of the four seasons. Three banderols in the floor refer successively to the States General's resolution on 4 December 1874 to establish a museum, to the appointment of Cuypers as architect of the Rijksmuseum buildings on 12 July 1876, and to 13 January 1877, the day the first pile of the foundations went into the ground.<sup>7</sup>

### Research and Reconstruction

The *New Rijksmuseum* project encountered many delays for all sorts of reasons. The hold-ups were advantageous, though, in that they



*Fig. 2*  
Stained glass  
windows in the  
Entrance Hall.  
Photo: Pedro  
Pegenaute.

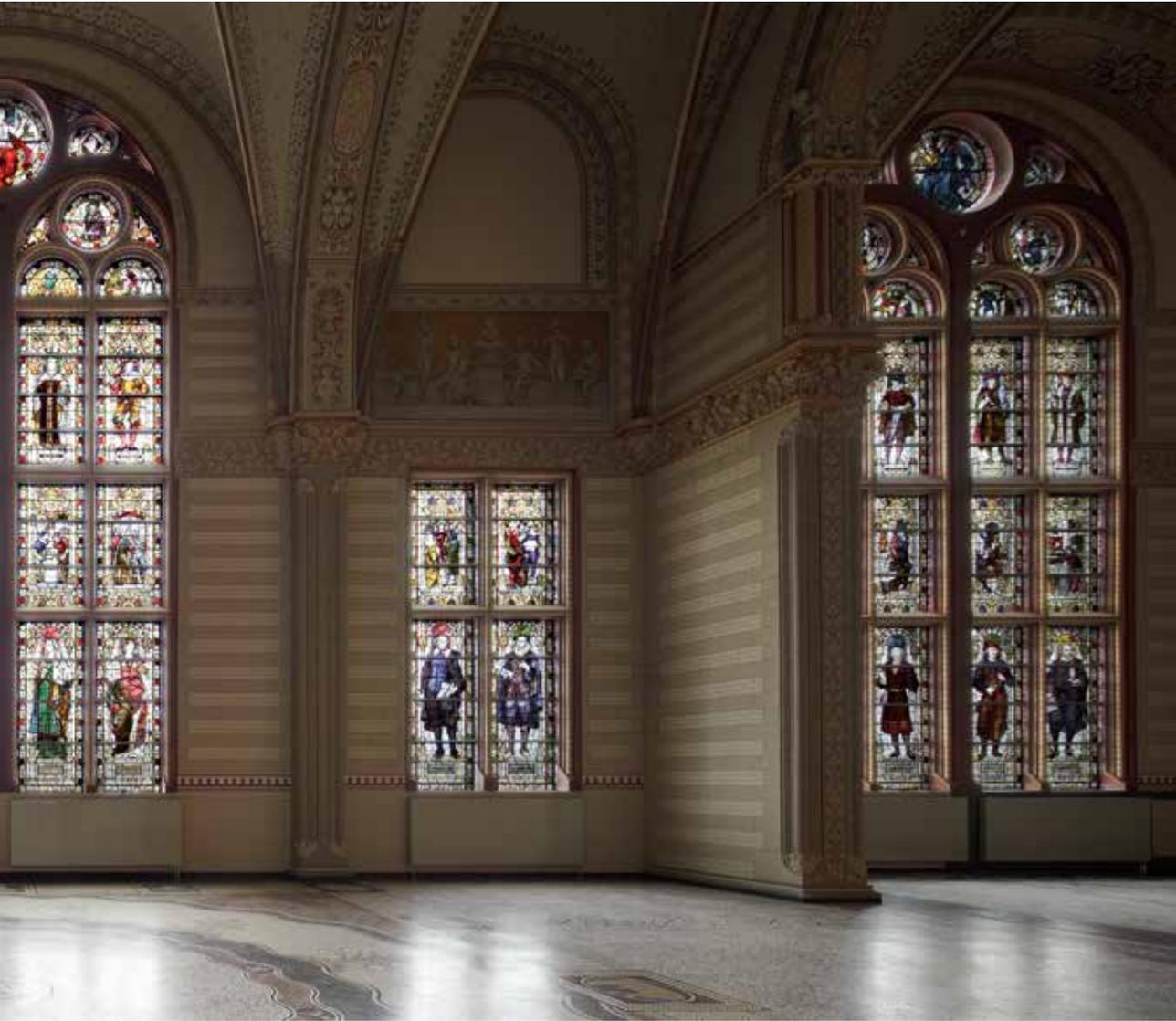




Fig. 3  
Cuyper's design for  
Leo and Aquarius.  
Rotterdam, NAI,  
RYKS, inv. no. t2246.

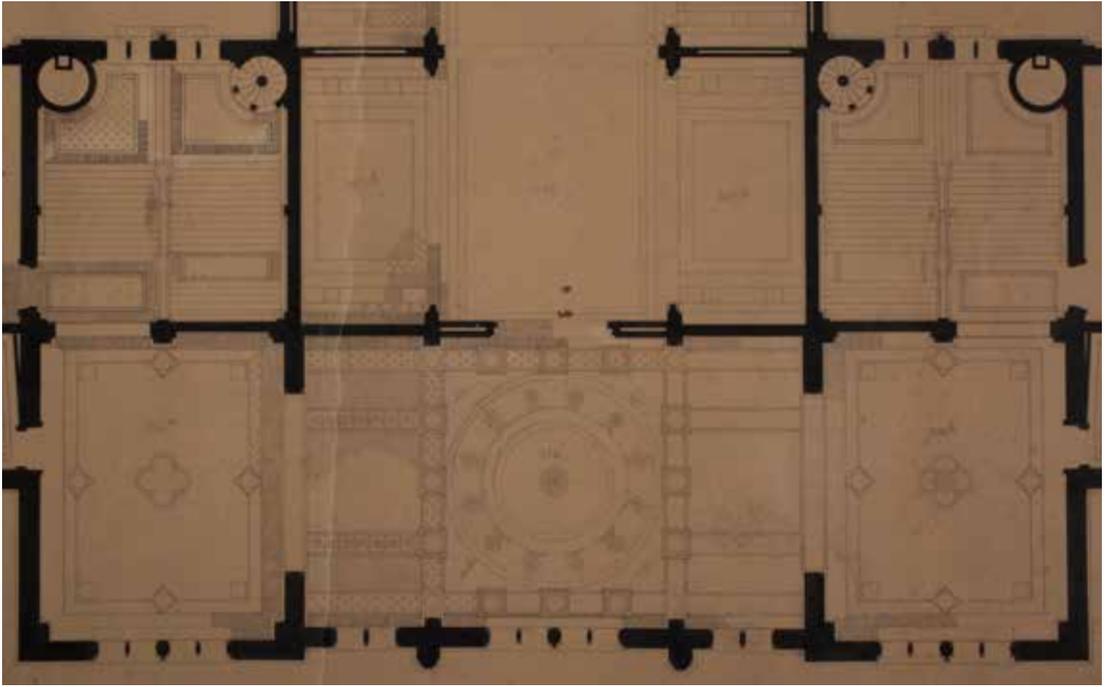
gave the restoration architect and the researchers time to create further support for their ideas. Trial reconstructions of the Cuyper decorations in the Entrance Hall and the Gallery of Honour made it possible to get a clear idea of the wealth of the original decoration. The colours sustain and enhance the three-dimensional architectural elements, including the carved capitals, ribs and vaulting, and emphasize the structure as was originally intended. The client and the new build architects also became convinced of the value of the Cuyper concept. Sufficient information was found for a historically convincing reconstruction of the wall and ceiling paintings in the Night Watch Gallery, the Gallery of Honour, the Entrance Hall and the stairwells. The surviving canvases by George Sturm, which were originally permanently displayed on the walls of the Gallery of Honour and the Entrance Hall, were recovered from the museum repository and restored by Stichting Restauratieatelier Limburg in Maastricht, under the direction of Jos van Och.<sup>8</sup>

The cracked terrazzo floor in the Entrance Hall was removed in the 1990s under the direction of the Rijksmuseum's then architect Wim Quist (1930). An approximate estimate for the reconstruction of the floor was included in the first estimate on the basis of an exploratory investigation by Van Hoogevest Architecten.<sup>9</sup>

Cuyper's own sketches for the floor<sup>10</sup> and two detailed drawings of the Aquarius and Leo star signs (fig. 3),<sup>11</sup> published in Cuyper's book on the Rijksmuseum,<sup>12</sup> gave a good idea of the layout, execution and detail. In tandem with the literature research,<sup>13</sup> the design drawings were studied in the Cuyper archives, which are in the Netherlands Architecture Institute (NAi) in Rotterdam. Beautifully coloured floor drawings gave a clear picture of the patterns and colours of the floors in the other museum areas, but a drawing of the floor in the Entrance Hall was not found at that time. The historical floor specifications, however, are available.<sup>14</sup> They revealed that the floor was made by 'Mosaik-Terrazzo-Boden-Fabrikant' Johann Odorico in Frankfurt am Main, a large, well-established company with hundreds of employees from the Italian region of Friuli, north of Venice. The contract was awarded in Haarlem in September 1881, but the work was still not finished at the opening on 13 July 1885.<sup>15</sup> The specifications included other stipulations with regard to the making of 'sprinkled' terrazzo bands with figures in marble mosaic. A size of 1.5 centimetres was prescribed for the square marble stones, which were to be supplied in various colours. However Cuyper's drawings of Aquarius and Leo indicate a variation in the size of the stones. This created shadows and gave the figures depth. Further research in the Rijksmuseum's image bank unearthed a clear photograph (fig. 4) of the space before furniture was placed in it. Zooming in, we can see the figures described in the literature. The photograph is clear

Fig. 4  
The Entrance Hall  
with the original  
terrazzo floor, c. 1909.





proof that this floor programme including the figures was actually implemented.

Financial cutbacks during the renovation of the Rijksmuseum meant that there was a long period of uncertainty as to whether it would be possible to reconstruct the floor. In October 2010 it was announced that the reconstruction of the floor could definitely go ahead. There were only four months left for further research. The contractor had to have access to the detailed drawings by the end of January 2011 at the very latest in order to complete the floor on schedule. That was worryingly tight as a great deal still had to be found out about the mosaic designs. Follow-up research fortunately provided a lot of new information. One important discovery in the Cuypers archive was a floor plan of the Entrance Hall with the exact measurements of all the geometric shapes in the terrazzo floor: the meandering circles in the central area, the border with square zones for the signs of the Zodiac and the connecting

bands between the middle area and the side panels (fig. 5).<sup>16</sup> The floor plan also contains detailed information about the plants that spring from the circle and the tendril decorations in the bands. Both sections, which can just be made out in historic photographs, could then be reconstructed exactly on the basis of the drawing. This design also shows the birds that stand in the outermost circle in the middle area of the Entrance Hall as 'the denizens of the sky'. If we zoom in closely to the section of the floor that is visible in the historic photograph it becomes clear that Cuypers departed from the design there (see fig. 4). The birds have been replaced by stars. For the rest it proved to be a scale drawing which actually served as the basis for the execution of the nineteenth-century work, as the historical image material proves.

A further important discovery was an actual-size sketch for the Aquarius (fig. 6).<sup>17</sup> The drawing was found in the archives of Cuypers's studio, which had not been as extensively researched in 2002 as it has now. Improved access

*Fig. 5*  
Original floor plan  
of the Entrance Hall  
with measurements.  
Rotterdam, NAI,  
RYKS, inv. no. t2204.

to these archives made it possible to find sketches of the other signs of the Zodiac – some badly damaged – and of an important section of the figurative images in the middle and side zones. These figures are elementary, even simple, with clear lines. The style seems to have been more about the recognizability of the programme rather than its artistic execution. In part for this reason, it was decided not to use a modern artistic approach to fill in a number of gaps, and to work with the drawings from Cuypers's studio archives that deal with an identical theme. The fact that the figure drawings, like those of the signs of the Zodiac, were filed in the studio's archives rather than in the archives of the Rijksmuseum itself seems to indicate that they were also used for other works by Cuypers. This confirmed the lesser importance of the stylistic execution of the iconographic programme and justified the method chosen for filling in the gaps.

Elements were omitted in the occasional case where the primary source material provided an unsatisfactory basis for reconstruction. 'The water with its denizens', for example, as described by Alberdingk Thijm, was not reconstructed. We assume that the theme appeared as wavy lines between the second and third meandering circles in the central zone, as can vaguely be made out in the historic photograph. However this information is too little to go on for reconstruction.

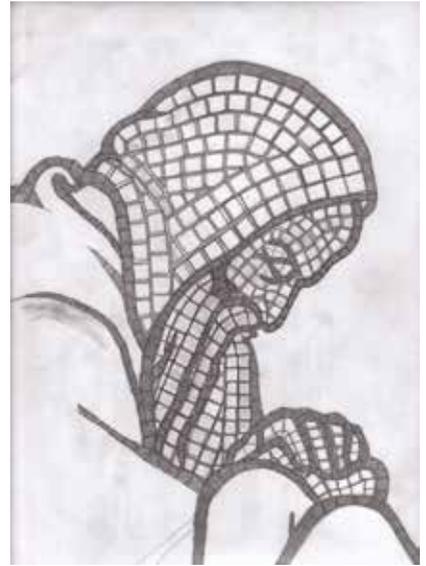
To sum up it can be said that the research produced three primary sources that formed the basis for the reconstruction of the terrazzo mosaic floor in the Entrance Hall. The first and most important source was the NAI in Rotterdam, where the drawings and the floor specifications are housed.<sup>18</sup> The second source was the historic photographic material that shows a large part of the authentic floor in the Entrance Hall, which made



it possible to compare the designs with the drawings.<sup>19</sup> From this material it could be concluded that Cuypers departed from some of the details in the execution of the first design, but that in the main the floor plan was executed according to his initial ideas. The third primary source was the documentation written by the architect himself and his advisor. Taking these in conjunction with written sources by later researchers, it was possible to get an almost complete picture of the iconographic programme.<sup>20</sup> The written and illustrated source material formed the historic basis for the reconstruction. To fill in a number of gaps I took the liberty of basing the designs on other drawings by Cuypers that dealt with a similar theme and on the written primary sources. It is a decision that stemmed from the desire to reproduce the context of the iconographic programme in the Entrance Hall as completely as possible and seemed appropriate given the simple style in which the figures were executed.

The reconstruction of the floor is explained and dated in a newly added banderol in the eastern side zone: *In MMXI werd bij de restauratie en herinrichting van het Rijksmuseum de vloer in de voorhal gereconstrueerd naar het oorspronkelijk ontwerp.* During the reconstruction one of the

Fig. 6  
Sketch of Aquarius.  
Rotterdam, NAI,  
cuco, inv. no. t737.  
Photo: author.



*Fig. 7*  
Sketch of the  
old man.  
Rotterdam, NAI.  
Photo: author.

*Fig. 8*  
The author's drawing  
of the old man for  
the Italian workshop.



*Fig. 9*  
The old man laid  
out in mosaic in  
the Entrance Hall.  
Photo: author.

three banderols had to be moved from the central zone to the western side zone because a glass partition with doors designed by Cruz y Ortiz was anchored to the floor on the original spot between the Gallery of Honour and the Entrance Hall.

### **Traditional Methods for the Reconstruction Work**

All the available image material was converted into digital drawings for the contractor.<sup>21</sup> The Amsterdam firm of Francesco Candido had the expertise required to make a terrazzo floor of similar dimensions. Like the old firm of Odorico, Candido originally came from Friuli, north of Venice. Valerio Lenarduzzi has his workshop in that same region and was asked to make the figures in marble mosaic. Much care was devoted to the art-historical supervision of the traditional process,

parts of which were carried out in Italy. The stones were sketched in on a number of drawings to give as good as possible an idea of the nineteenth-century concept (figs. 7-10), as Cuypers had also done in his working drawings for Leo and Aquarius. The new mosaic figures were not allowed to be too perfect – a not inconceivable risk as the figures were being made beforehand in the efficient surroundings of the Italian workshop. This differed radically from the conditions in which Odorico had had to do its work on the building site. We chose the colours of the marble in Lenarduzzi's workshop (fig. 11) because a trial piece sent from Italy was not immediately convincing.

The sources provided only cursory information about the colour schemes of the mosaic. The specifications state that many colours were used and Cuypers wrote that Leo and Aquarius

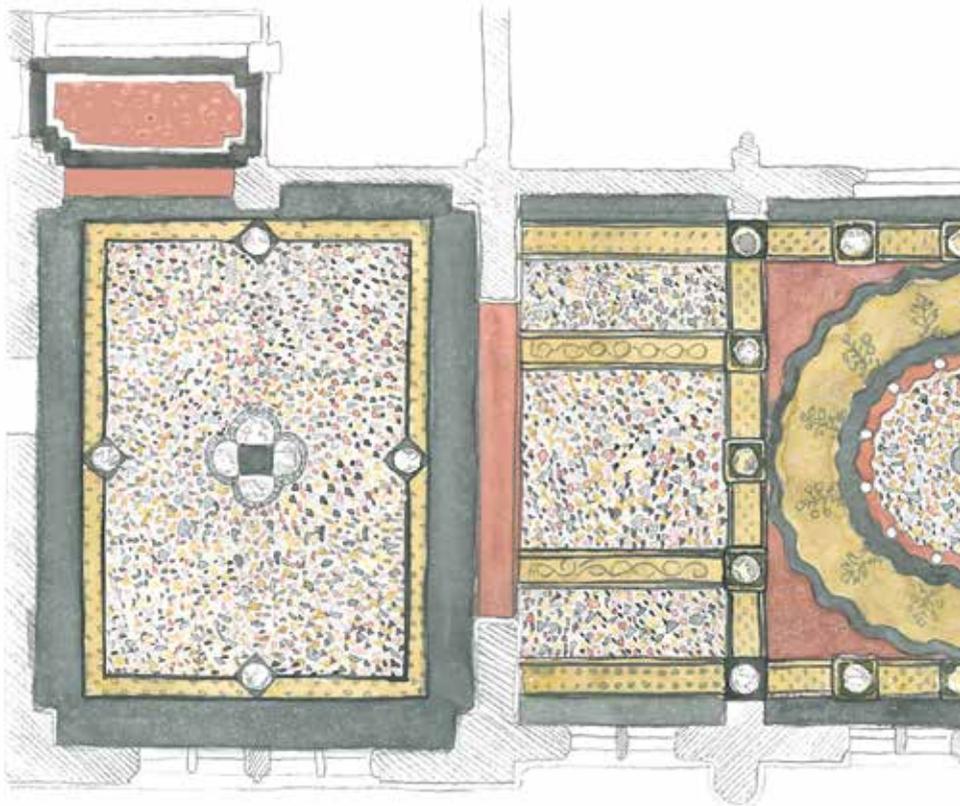
*Fig. 10*  
The old man in  
mosaic and terrazzo.





*Fig. 11*  
Lenarduzzi's  
workshop in Italy.  
Photo: author.

*Fig. 12*  
Watercolour by  
the author showing  
types of terrazzo  
for Candido.

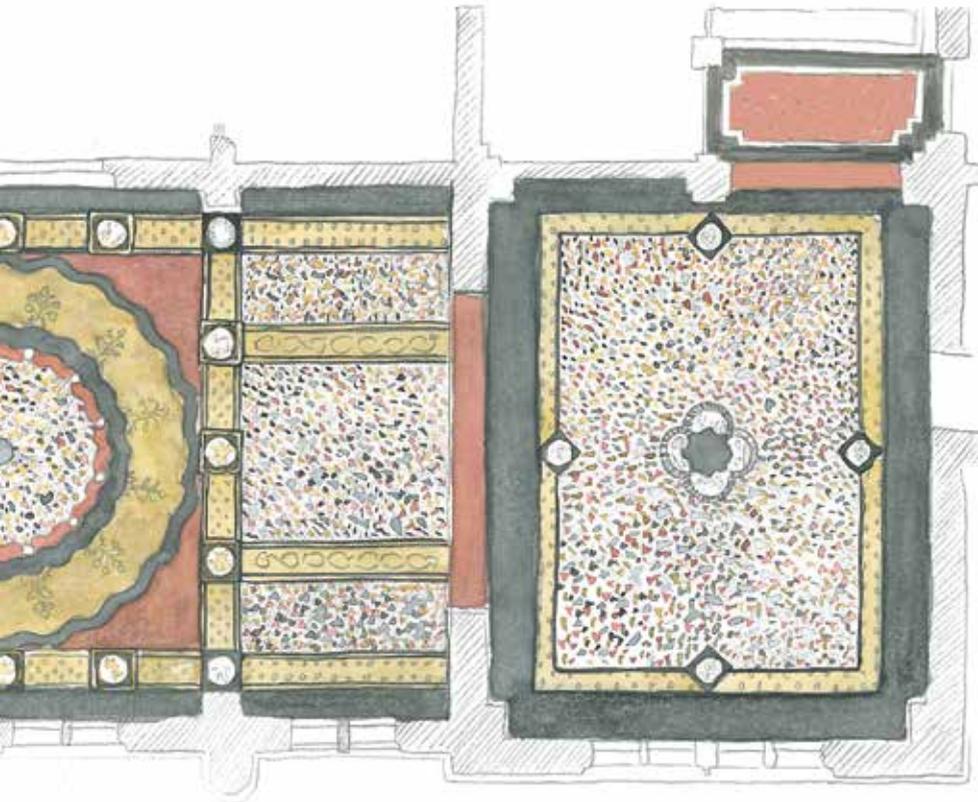


were executed as 'yellow figures with black outlines on a blue background and with yellow bands'.<sup>22</sup> In historical photographs the figures show as different shades of grey, with the body parts clearly standing out as white. Taking this as the basis, we opted for abstract colours with white for the body parts. The figures were made in *giallo reale* (yellow marble) and other types of marble, which can also be found in the terrazzo floor sections. This use of colour created a good connection between mosaic and terrazzo. The choice of terrazzo was based on preserved terrazzo floors in the museum, among them the floor in the library and the terrazzo on the landings of the main staircase (fig. 12).

When the first pallets of mosaic arrived at the Rijksmuseum from Italy in April 2011 (fig. 13), all the pieces were laid out like a jigsaw puzzle



Fig. 13  
Mosaics delivered  
on pallets.  
Photo: author.





*Fig. 14*  
An employee from  
Lenarduzzi's workshop  
laying out the mosaic.  
Photo: author.

*Fig. 15*  
The central area  
laid out in mosaic.  
Photo: author.

(figs. 14 and 15). They were then grouted with terrazzo, a muddy mixture that concealed the colours of the marble chippings for a long time (fig. 16). A process of intensive sanding gradually revealed the colours and now the floor





Fig. 16  
Spreading the  
terrazzo mixture.  
Photo: author.

beautifully complements the wall paintings and the stained-glass windows (figs. 17-19). The terrazzo floor with its many mosaic figures completed the iconographic programme in this important museum space. Part of

Cuypers's *Gesamtkunstwerk* is on display once again in the Entrance Hall, now as part of the collection of the New Rijksmuseum (fig. 20).



Fig. 17  
Sanding the terrazzo.  
Photo: author.



*Fig. 18*  
The western side  
zone appears.  
Photo: author.

*Fig. 20*  
The Entrance Hall  
with the new floor.  
Photo: Jannes Linders.

*Fig. 19a and b*  
Winter and  
Summer.  
Photos: Erik Smits.





## NOTES

- 1 During the project the motto was changed to *Further with Cuypers*.
- 2 C.C. de Boer-van Hoogevest, 'Een visie op de huidige restauratiepraktijk', *Jaarboek Cuypersgenootschap* 18-19 (2002-03), pp. 27-32.
- 3 Van Hoogevest Architecten, *Het Nieuwe Rijksmuseum, restauratievisie*, Utrecht 2001.
- 4 P.J.H. Cuypers and V.E.L. de Stuers, *Het Rijks-Museum*, Amsterdam 1896, p. 33. Victor de Stuers (1843-1916) was head of the Art and Science departments of the Ministry of the Interior and in this capacity was closely involved in the establishment of the Rijksmuseum.
- 5 Catholic Documentation Centre Nijmegen, Archives of Alberdingk Thijm, inv. no. 5724, Brochure J.A. Alberdingk Thijm, *Toelichting stoffeering van de Voorzaal en de Rembrandtzaal van het Rijksmuseum*, Amsterdam 1885. See also inv. no. 2198, handwritten document probably by Alberdingk Thijm, 'Stoffering van de Voorzaal en Rembrandtzaal van het Rijksmuseum', 1885. In his description of the floor (op. cit. (note 4), p. 33) Cuypers goes into less detail about the symbolic images in mosaic and also left out sections that AlberdingkThijm does describe. For example the points of the compass in the eastern panel and the four zones in the western side zone referred to by Alberdingk Thijm (p. 4) are not mentioned by Cuypers. These sections were not found in the historical image material and were therefore omitted from the reconstruction.
- 6 In the description by Alberdingk Thijm (op. cit. (note 5), p. 4) the rabbit is mentioned as the symbol for the Earth, whereas in the drawings archive of the Netherlands Architecture Institute (NAi) the symbol was the elephant, not the rabbit. The reconstruction consequently departed from the descriptive document and the elephant was used.
- 7 13 January was not chosen by chance; it is the day on which Charlemagne died. He was regarded as the founder of Netherlandish art and culture.
- 8 De Stichting Restauratie Atelier Limburg (SRAL) also carried out the painted reconstruction in the museum's main axis under the direction of Anne van Grevenstein.
- 9 This research was carried out by the author of this article.
- 10 NAi, Cuypers Archives RYKS (archive of the Rijksmuseum), inv. nos. t2252, t2286, t2263.
- 11 NAi, Cuypers Archives RYKS, inv. no. t2246; this file contains the original designs for Aquarius and Leo.
- 12 Cuypers and De Stuers, op. cit. (note 4).
- 13 The most informative article about the iconography of the Entrance Hall – and the floor in particular – was written by J. Becker, 'Ons Rijksmuseum wordt een tempel: zur Ikonographie des Amsterdamer Rijksmuseums', *Nederlands Kunsthistorisch Jaarboek* 35 (1984), pp. 227-327. I am grateful for the expertise of Jochen Becker who was also a member of the feedback group during the research and reconstruction of the decorations and the floor.
- 14 NAi, Cuypers Archives RYKS, dossier 141, which contains the floor specification and inv. no. t2233 with the drawings belonging to the specification. The colours in these drawings refer to the type of floor that had to be made and not to the actual colour scheme.
- 15 NAi, Cuypers Archives RYKS, dossier 141. The documents state that only 2/20ths of the floor was ready in 1885!
- 16 NAi, Cuypers Archives RYKS, inv. no. t2204.
- 17 NAi, Cuypers Archives, CUCO (abbreviation for Cuypers's studio drawings archives in Roermond), inv. no. t737.
- 18 NAi, Cuypers archives RYKS and CUCO.
- 19 Image bank of the Rijksmuseum, the Amsterdam City Archives and the NAi.
- 20 Becker, op. cit. (note 13); Cuypers and De Stuers, op. cit. (note 4); and two written documents by Alberdingk Thijm, op. cit. (note 5).
- 21 The reconstruction work was supervised by restoration project leader Ronald van Wakeren. The digital working drawings were made by Esther van der Knaap. Both work for Van Hoogevest Architecten.
- 22 Cuypers and De Stuers, op. cit. (note 4), p. 33.

