The history behind ceramics

Historical study of Royal Delft ceramics factory building complex

Xiang Yun

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Tutor: Jean-Paul Baeten

Abstract

The factory office building at Rotterdonseweg 196 is part of the porcelain company Koninklijke Porceleyne (Royal Delft). It is registered as national monument 525284 and is part of the three-part monument complex 525283. It is located between Rotterdamseweg and Delfteski in Delft. In the past, the factory occupied a larger area of land than it does today, but after the Second World War all its land was reduced by more than half. The building plot consists mainly of the factory buildings, office buildings and an atrium garden. The ceramics gallery in the atrium garden helped Royal Delft to win the first prize at the Paris World Exhibition in 1900. The main office building and factory building were built around 1930 and in 2016 Iprocom and entenwacht Zuid-Holland carried out a complete architectural restoration of the office building.

The building was designed by the architect Anton van der Lee to provide a workplace for both the factory managers and the painters. The overall design style of the building is not monolithic, but is influenced by a combination of the Late Amsterdam School, New Objectivity, Rationalism and American architectural styles. All of the architectural ceramics used in the building were produced by Porceleyne itself.

The cultural role of ceramics is extremely large and important. In addition to being one of the oldest ceramic factories in the Netherlands since 1653, Porceleyne is also the most famous factory for the production of Delft Blue. In addition to Delft Blue products, the factory used to produce refractory bricks, tiles and architectural ceramics. Architectural ceramics produced by Porceleyne can be found in many buildings throughout Netherlands. The entire factory complex forms a complete production line, with painters painting decorative designs for the bare white billets in the office building, which are then sent to the factory for glazing and firing, and the final goods produced are sold in the shop on the ground floor of the building.

This is a much-loved building with a highly reputable and admired façade, interior decoration and staircase. As an important building in the region, its cultural and historical significance is of great research value. Not only because of its place in the history of the production of the famous Delft Blue, but also because it has a unique architectural value. It is the

product of a diverse combination of architectural styles, structures and ceramics, and offers a unique and multifaceted view into the history of Royal Delft and the city of Delft itself.

Key words:

Delft, ceramics, architectural ceramics, building decoration, history

1. Introduction

Royal Delft Pottery is a renowned manufacturer of Delft Blue pottery, a blue and white pottery that originated in the Dutch city of Delft. The factory has a long history of over 350 years, from a small ceramics factory in the 17th century to the global brand it is today.

Figure 1: The document granting de porceleyne the royal title.
De Porceleyne Fles, Stock number 174-93, City Archives, Delft.

Today, the Royal Delft has become a local cultural label for Delft rather than being known for

its commercial value. From the former ceramics factory to the current museum, Royal Delft has developed a complex of buildings with a unique historical character. Each part of the entire complex has a different architectural style and historical period, which can be briefly divided into three periods: the 1920s, the 1930s and the post-World War II period. all the buildings and offices from the 1920s are of great monumental value, especially the factory hall and office building from 1929 which became the main body of the museum and is now one of the national monuments .

Figure 2：satellite map of the Royal Delft building complex

April 2023, from: kadastralekaart.com

The rich historical stratification and the different architectural styles make the study of the Royal Delft complex itself play an important role in the study of the development of Royal Delft and indeed of the history of the local town.

2. The history of the Royal Delft Ceramics Factory

The history of the Delft ceramics factory is inextricably linked to the import of porcelain from China into the Netherlands. The history of the factory can be divided into two general periods in terms of stages of development: the first from 1653 to 1876 and the second from 1876 to the present. The development of ceramic products is undoubtedly a thread running through its history.

2.1 Background: Chinese and Dutch porcelain

The development of Delft porcelain was inseparable from the competition with Chinese

porcelain, and the factories went through a process of competition, learning from the technical experience and eventually becoming known for their high quality. Between 1560 and 1620, Haarlem, Amsterdam, Rotterdam and Delft became the main cities in the Netherlands for the production of ceramics, with eight factories in Delft alone(1).

In the 17th century the Netherlands began to import large quantities of Chinese porcelain, of which white porcelain was a great favourite with the wealthy Dutch as soon as it entered the market and began to compete fiercely with majolica pottery. The Dutch ceramics factories reacted in different ways to this. Some factories began to switch to other types of ceramics, while others began to imitate the quality and form of Chinese porcelain. These factories then produced an improved version of majolica, known as 'faience'. This greatly increased the marketability of Dutch porcelain, which in the 17th century was even called 'Hollands porceleyn' and is now known under the name Delft Blue(2).

In 1644 the production and export of porcelain from China ceased due to the war at home. As a result, Japanese porcelain quickly took over the market position of Chinese porcelain. Large quantities of Japanese porcelain were imported into the Netherlands, but as the level of faience was greatly improved, it was difficult to tell the difference between Dutch porcelain, Chinese porcelain and Japanese porcelain. Not only in the Netherlands, but also in other European countries, "Hollands porceleyn" was purchased in large quantities(3).

From 1647 to 1670, Delft's ceramic factories grew to a total of 18 and continued to grow. At its height in 1695, Delft had 32 pottery factories. By the 18th century, however, the 'Hollands porceleyn' was becoming obsolete and many of the faience manufacturers were on the verge of bankruptcy or had started producing other types of porcelain. By the 19th century, there were very few manufacturers still producing faience in the Netherlands, one of which in Delft was 'De Porceleyne Fles' , the predecessor of Royal Delft(4).

2.2 De Porceleyne Fles

2.2.1 The first period: 1653-1876

De Porceleyne Fles was founded in 1653 as Plateelbakkerij Van der Pieth, and its original location was in Oosteinde in the old town of Delft(fig. 7). Later, through acquisition and expansion, its factory grew to a medium level in the area and specialised in the production of porcelain(5).

By the end of the 17th century and the beginning of the 18th century, the factory was taken over many times and eventually fell into a very unpromising state of development; by the 19th century it had almost ceased to produce porcelain and was barely able to support itself by producing refractory bricks or building ceramics. It was not until 1876 that the factory was purchased by Joost Thooft(6).

2.2.2 The second period: 1876 - present day

Joost Thooft's (1844-1890) goal from the outset was to revive the glory of Delft blue porcelain and even make it more popular. As he himself put it:

"..... was not to 'imitate blindly, in all its phases', but to 'learn the lessons of the original patterns and of earlier porcelain in terms of decorative effects, especially the use of white on blue motifs, to produce a porcelain that was affordable to all and could thus win the public's favour through correct form and pleasing colour'" (Gaillard, 1986, p.52).[1]

After the acquisition of Porceleyne, Joost Thooft had the resources and know-how to experiment and create a faience product of even greater quality than before. in 1877, Thooft hired Adolf Le Comte (1850-1921) as artistic advisor to the factory, and work continued thereafter until 1915 In 1877 Thooft hired Adolf Le Comte (1850-1921) as an artistic advisor to the factory, and his work continued until 1915. In 1881, Thooft began to co-direct the factory with Abel Labouchere (1860-1940). After Thooft's death in 1890, Labouchere continued to work at the factory until his death in 1940(7).

2.3 Architectural ceramics

In addition to faience, which was the main product, Porceleyne also catered for the trend of architectural ceramics. From 1900 to 1930, architectural ceramics were used in many Dutch buildings, mainly for façade decoration and interior design. In order to meet the market demand, Porceleyne opened its own production line for architectural ceramics and began to design and produce architectural ceramics in-house. The factory also receives commissions from designers for the production of ceramics.

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[1] The original Dutch sentence is: *'niet 'in al zijne phasen, slaafs na te volgen', maar 'met gebruikmaking van de oorspronkelijke motieven en de lessen, die het vroegere aardewerk omtrent decoratief-effect enz. geeft, vooral in blauw op wit, een aardewerk te leveren, dat, onder ieders bereik vallende, door juiste vormen en aangename kleuren de gunst van een oordeelkundig publiek moge verwerven.'*

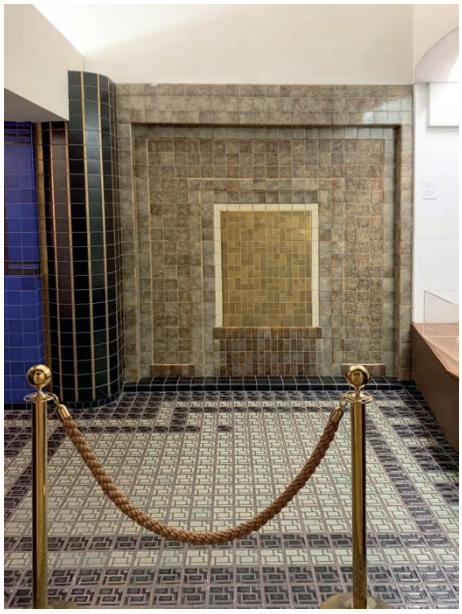


Figure 3: Examples of architectural ceramics and tile works in the museum De Porceleyne Museum. Photo by the author.

Architectural ceramics by Porceleyne can be found in many buildings, such as Beursgebouw by H. P. Berlage, Vredespaleis by J. A. G. van der Steur and Jachtslot Sint Hubertus by H. P. Berlage(8).

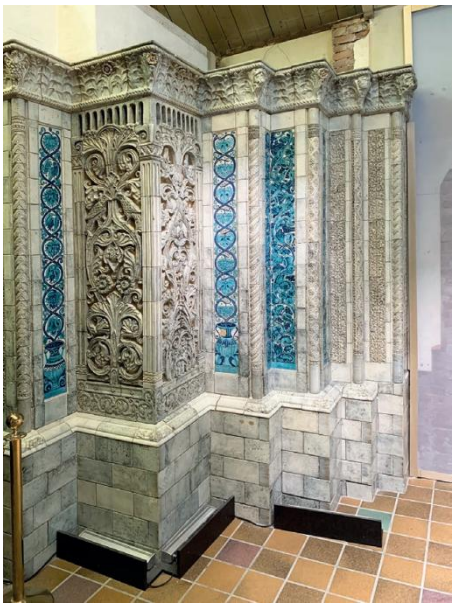


Figure 4: replica paneling inside the Vredespaleis in the Hague. Photo by the author.

Figure 5: Architectural ceramics produced by De Porceleyne used at the entrance of the Parliament. De Porceleyne Fles, Stock number 174-868, City Archives, Delft

2.4 The factory building complex

In 1900 the factory was still located in 20 buildings in the centre of Delft. In 1916, the factory bought the plot of land and associated buildings in "Delftsche Stoommeelfabriek v/h/ Perk" and used it to build A large production line for building ceramics was built there(9). The location is far from the city and there is plenty of room for expansion.

The acquired site included a two-storey factory, an internal courtyard and several low-ceilinged warehouses where the factory began to produce and exhibit architectural ceramics to attract potential customers, and in 1900 the gallery used to exhibit architectural ceramics helped Porceleyne to win first prize at the Paris World Exhibition. This also demonstrated the advantages of using the factory buildings for both production and display exhibitions(10).

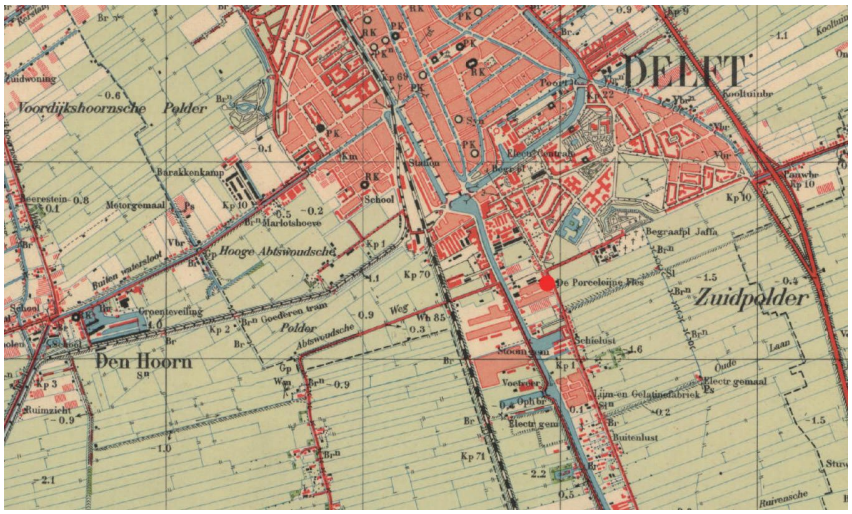


Figure 6: A map of Delft in 1940. The Porceleyne Mill is clearly visible on the Delft River. The factory is located entirely outside the city.

From: topotijdreis.nl.

2.5 The new office building

In 1926 the last part of the company also moved to Rotterdamseweg, and at the same time plans for a new office building began. The management commissioned the Delft architect Anton van der Lee (1869-1955) to design the present office building, and when it was completed in 1930, the factory was almost as large as it had ever been. After its completion, the office building was used by all the managers, office staff and painters of porcelain designs.

In the 1930s, however, the factory went through a difficult period. As a result of the financial crisis, the market for expensive architectural ceramics or luxury porcelain was almost no longer required for buildings. This affected the industrial production of the factory to a large extent(11).

Figure 7: De Porceleyne is one of the buildings in Oosteinde in the city centre. The entrance gate was

later incorporated into the outer wall of the new office building.

De Porceleyne Fles, s.d., Stock number 129077, City Archives, Delft.

2.6 Building renovation

The factory underwent a number of rebuilds and renovations, and only the changes affecting the size of the office building and the factory as a whole are described here.

In 1956 a new entrance for the factory shop was built on the north side of the office building. This entrance was first used only as a staff entrance and was not officially used as the main entrance to the building until around 1990(12). Following the sale of the adjacent land, the old main entrance lost its original function and the shop entrance was transformed into the new main entrance.

Figure 8: The newly completed 1956 storefront.

De Porceleyne Fles, s.d., Stock number 129070, City Archives, Delft.

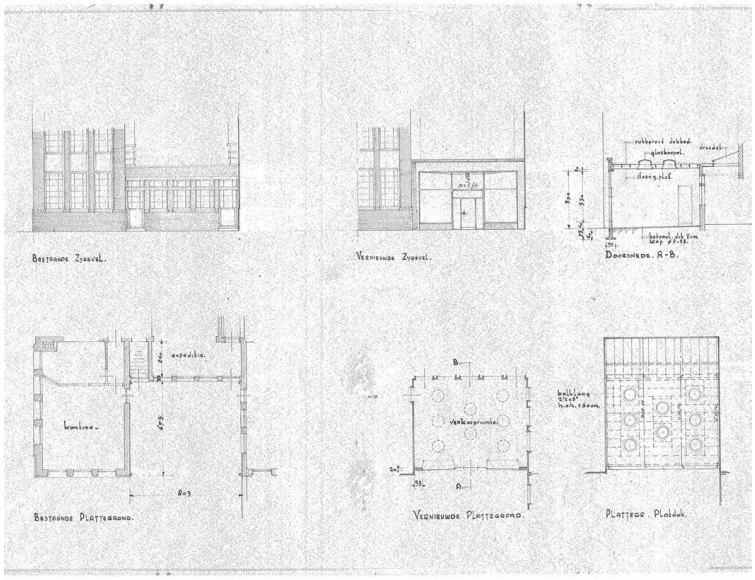


Figure 9: In 1956, the design of the new store.

De Porceleyne Fles, s.d., Stock number 408711, City Archives, Delft.

Between 1958 and 1981, the factory closed its Delft Blue porcelain production department for economic reasons. In 1976 and 1981, the last departments for the production of ceramic tiles and for the production of architectural ceramics were also closed(13). Much of the factory buildings were then left empty and the factory began to sell the factory halls together with the land to the public.

At the end of the 1980s the factory lost its physical connection to Delftse Schie, as the land was sold to a housing estate. In addition to the initial land at the main entrance, the factory sold off more land(14). Today this area serves as Octatube's offices and factory, which explains the later change in the location of the building's main entrance.

In 2016, the factory undertook a complete restoration of the office building with the help of Iprocom and the Dutch monument conservation organisation Zuid-Holland.

Figure 10: A photo of the entrance canopy. Photographer J.C.M. Jacobse, 1970-1975. De Porceleyne Fles, Stock number257980, City Archives, Delft.

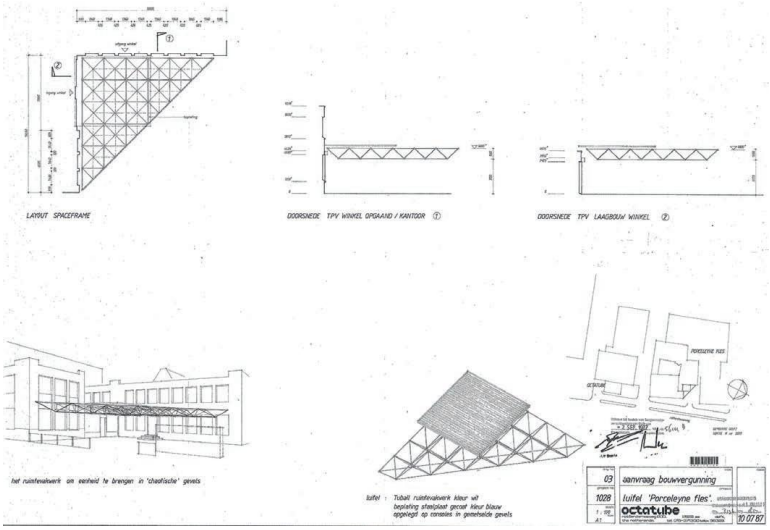


Figure 11: Octatube's new canopy design. Realized in 1987, it was demolished during a recent restoration.

Octatube 1987., Stock number257980, City Archives, Delft.

Figure 12: Aerial photograph of the acquired complex on Rotterdamseweg (1923).
To the right is a tall building with a courtyard garden.
K.L.M. aerocarto, Aviodrome archive inventory number 00763zr.

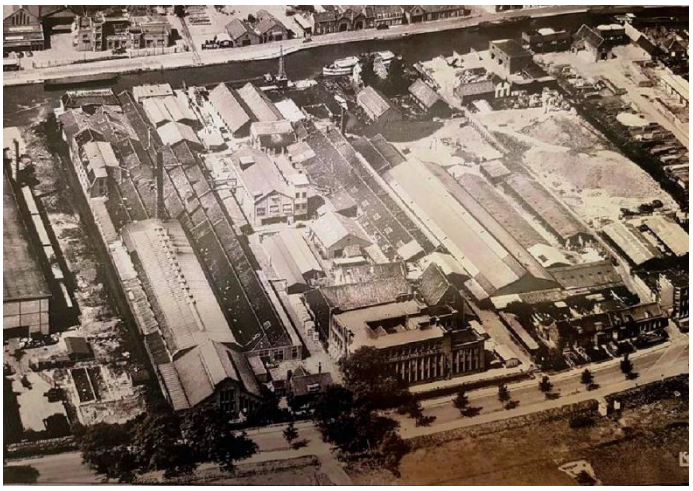


Figure 13: Aerial photo taken in 1952.
K.L.M. aerocarto, Aviodrome archive inventory number 028165zr.

3. The factory office building and the internal courtyard

De Porceleyne's factory building complex is located at the junction of the residential and industrial areas of Delft University of Technology and the campus, with the office building located on the road parallel to Rotterdamseweg .

As mentioned earlier, following the sale of a large part of the land, the main entrance is now located on the north side of the building, accessed through a front yard. On the south side of the building, between the office building and the factory building, a road leads through the factory hall to the residential area at the rear.

The internal courtyard is surrounded by four building blocks. On the north side is the old two-storey factory building left over from the first phase of the factory, on the east side is the office building designed by Anton van der Lee, and on the south and west sides are connected to the ground floor of the two buildings, now developed as a permanent exhibition area for the Royal Delft Museum. It is worth noting that the courtyard has a gallery outside near the western side of the building, which is decorated throughout with architectural ceramics designed and made by the factory itself.

3.1 The office building

The building as a whole is rectangular in shape, the main body of which is a 'u' shaped plan building, with the functions arranged around a central stairwell. To the rear (north) of the building are two wings, each with a rectangular plan. The main building is three floors high and the wings consist of a two-floor building (Fig. 14). The entrance to the factory shop was built between the two wings and today serves as the main entrance to the Royal Delft Museum.

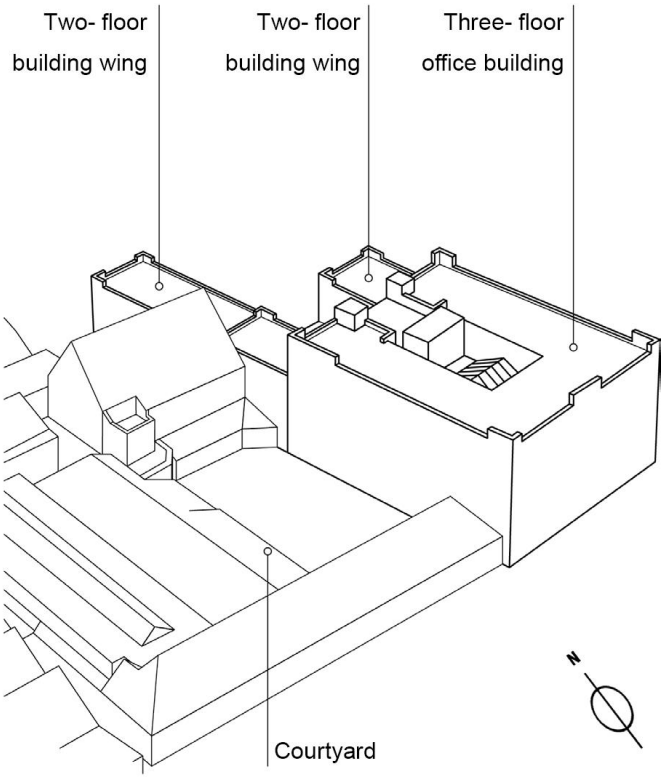
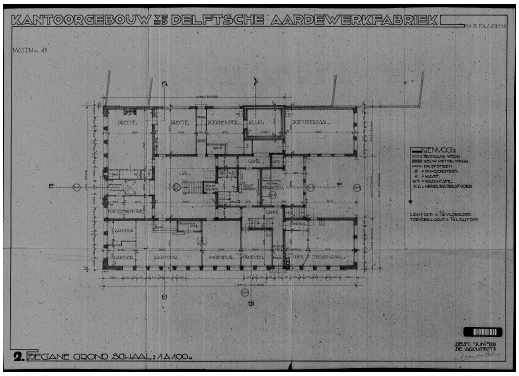


Figure 14: The overall view of the building complex in 3D.

The building's atrium forms the centrepiece of the building with its impressive

architectural ceramics. The staircase is completely encased in architectural ceramics made by Porceleyne himself. The most important rooms are the office spaces on the ground floor, which have now lost their original function but still retain many of the interior elements of their day. Apart from some tiled panelling on the sides, the interior of the building has almost no suspended ceilings and one can see the white underside of the ceiling between them.



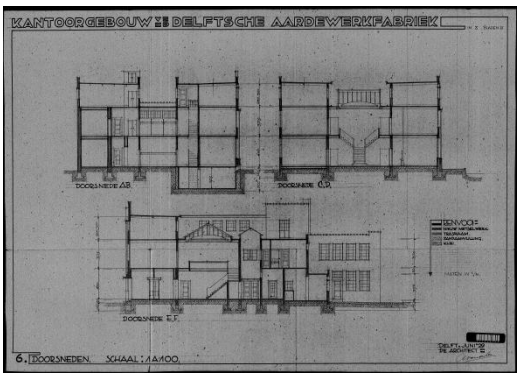
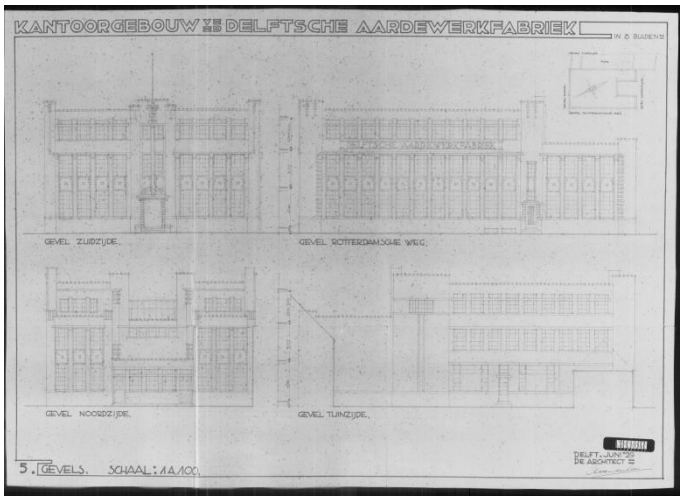


Figure 15 & 16: The original plan of the office building.
De Porceleyne Fles, Stock number 953-22173, City Archives, Delft.

Initially, the main façade of the building was located on the south side of the building. Once the shop entrance was moved to the north elevation, the south elevation gradually lost its function as the main entrance. The façade as a whole is constructed of grey and reddish-brown brick with decorative masonry used around the edges of the windows and at the top of the façade. The design of the south and west elevations is a classic expression of modernism: absolute order (Fig. 17). The decorative masonry at the top of the walls enables a grand spatial experience to be given to the visitor. The shape of the transoms, lintels and flying buttresses are accentuated above the façade by the design, giving the building a more distinctive appearance.

Figure 17: The design rhythm of the building facade.
Edited photo: Stijn Brakkee, 2013, RCE Image Bank inventory number: 10463-14771.



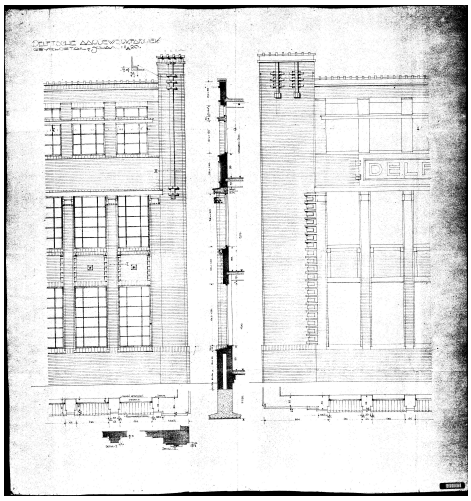


Figure 18 & 19: Elevation design and elevation construction of office building.
De Porceleyne Fles, Stock number 953-22173, City Archives, Delft.

The south elevation is symmetrical and its span consists of nine compartments. Inside, there are corner columns on both sides and a decorative masonry structure at the top. The south entrance is framed in brown architectural ceramic of Porceleyne's own manufacture. Its central axis and corner columns are more prominent compared to the walls outside the other compartments. At the top of the central column, a flagpole is fixed in expressionist form to a wrought iron bracket. The first and first floors are visually divided by horizontal lines.


Figure 20 & 21: South elevation.
Photograph by the author.

The west elevation adjoins the courtyard, and here the elevation outside the nine compartments has a very wide corner on the left. As can be seen on the plan, the walls here are extraordinarily thick, as this is the outer wall of the factory safe. This also explains why there are no windows here. Only the first floor of this façade has three very small windows. Between the third and fourth compartments on the ground floor there is a passage to the courtyard, the door of which was transferred from the old factory building in Oosteinde, while the passage is decorated with architectural ceramics (fig. 7). The door is flanked by a window on each side, two compartments wide for its length, and extends to the left into the wing of the building.

Figure 22: West elevation.
Photograph by the author.

The north elevation is asymmetrical due to the two wings, between which the entrance to the shop was built in 1956. This entrance consists of a wide glass façade with surrounding tiled artwork.

Figure 23: North elevation with the new entrance.
Photograph by the author.

The east elevation is adjacent to the public road and its windows are walled up, as are the windows on this side of the south and west elevations, which are all the same size. Above the windows on the ground floor is a decorative tile with the words "De Porceleyne Fles" in gold tiles on the reddish-brown façade of the building.

Figure 24: East elevation (street side).

Stijn Brakkee, 2013, RCE Image Bank Stock Number: 10463-14771.

The north wing of the building is two storeys high, and the right wing adjacent to the east elevation is four compartments wide with a corner pier. The design of the left wing is essentially the same, but after the first bevel, its façade continues to extend to form decorative masonry with eight bevels and a corner pier.

Figure 25 & 26: The right wing and the left wing.

Photograph by the author.

3.2 Decorative bricks

Decorative masonry is used in various positions on the façade and in the chimney. With these examples, the decorative style of the building can be described. The use of these

masonries bears a strong resemblance to the Amsterdam School as well as to the rationalist style of architecture. Decorative masonry is also used between wall openings and windows, and all walls are topped with decorative masonry(Fig. 27), giving a strong stylistic suggestion and a distinctive aesthetic to the building's appearance.

Figure 27: The decorative masonry.
Photograph by the author.

3.3 The building structure

3.3.1 Layout

The main structure of the building revolves around a central stairwell with a corner at the mezzanine level on the ground floor, which provides access to all adjacent rooms. The ground floor of the building complex is linked to the ground floor by an atrium, which thus becomes the structural centre of the building, around which all the main spaces and the vast majority of the office space are organised (Fig. 28).

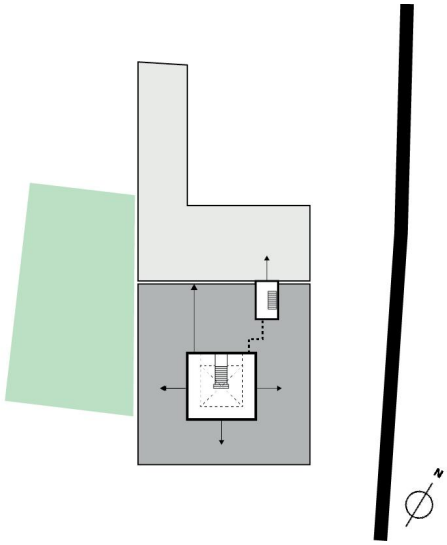


Figure 28: Location of the main staircase.

3.3.2 Load-bearing structures

The main load-bearing structure of the building is a steel frame. The external and internal walls contain steel columns on which "I" shaped steel beams are erected, while the floor consists of prefabricated concrete slabs mounted on the beams. In contrast to the direct feeling, the building façade is not actually involved in direct load-bearing, but is supported by the columns built on the façade(15).

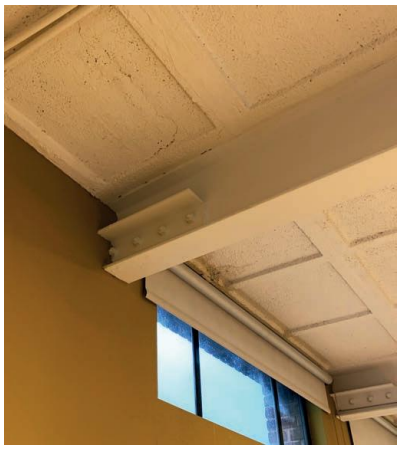


Figure 29: Steel I-beams are attached to brick columns.

Photograph by the author.

It was only in 1840 that cast iron technology began to mature in the Netherlands, lagging behind the British and French, and it took a long time for steel to be widely used as a building material. 1880 saw the production of rolled steel sections, which could only be used for floors and beams, not columns. The first steel-framed buildings were not built until

around 1900, when engineers riveted several sections together to produce composite columns of sufficient strength. Single rolled section steel columns did not appear until 1920(16).

Figure 30: During the restoration, the load-bearing structure is clearly visible. Photo courtesy Porceleyne Fles.

Before van der Lee used rolled steel sections in the construction of the porceleyne factory building, the first similar architectural practices in the Netherlands appeared in the 1920s. These included the Gerzon office building in Amsterdam (1922) and the Philips office building in Eindhoven (1928). By 1940, only 100 all-steel frame buildings with rolled steel sections had been built in the Netherlands(17).

In addition to the steel frame, the precast concrete floor slabs used in the porceleyne were rare at the time, and a combination of steel beams and poured concrete floors appeared in the Netherlands around 1910. However, at that time it was still the case that precast concrete beams were stacked on top of each other and then concrete was poured on top, rather than using precast floor slabs. Until the Second World War most buildings were still constructed on steel supported structures with concrete floor slabs poured on site; prefabricated elements such as floor slabs were rare in the Netherlands at that time(18).

The use of a combination of steel frame construction and prefabricated floor slabs is therefore quite unusual for a building of the 1930s.

3.4 Changing

The entire structure of the building has remained virtually unchanged over the years,

with the exception of a very few areas. The most significant change was the alteration of the entrance to the shop in 1956. After the alterations were completed, the entrance that the building was originally designed for(Fig. 31) lost some of its architectural value, as this alteration affected the spatial experience of visitors entering the building and entering the atrium (Fig. 32). Today it is difficult to directly experience the grandeur of the interiors when one enters the building via the shop entrance through the corridor at the back of the stairs.

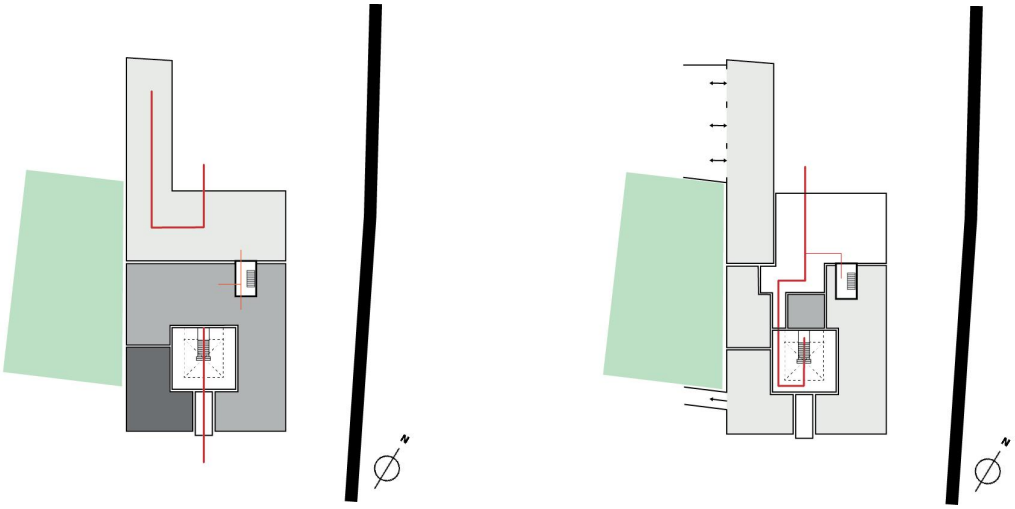


Figure 31 & 32: The original plan path. The plan path nowaday.

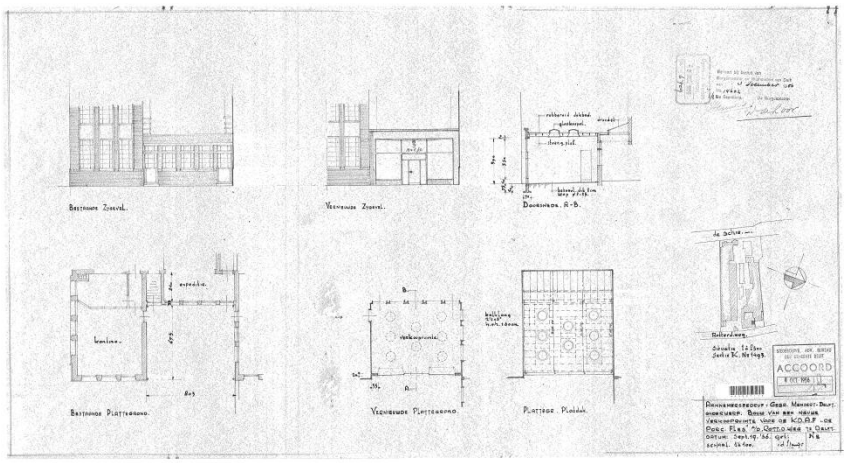


Figure 33: Drawings of the renovation of the store entrance in 1956.
De Porceleyne Fles, Stock number 953-22181, City Archives, Delft.

In order to transform the larger shop space, the designers broke up most of the ground floor facade of the left wing, making the ground floor wing an essential traffic area on the continuous tour route. As a result of the removal or displacement of some of the internal walls, the office space within the building has been altered from its initial size, but this has

had little impact on the overall experience of the building.

3.5 Space level

There is a clear spatial hierarchy within the factory office building. The main spaces are mostly concentrated on the ground floor, where they enclose the impressive and ornately decorated atrium. The upstairs rooms were once mainly used as drawing rooms, but now, with the exception of a few rooms which are still used for drawing, they are used as offices for Royal Delft and other companies.

3.6 Courtyard

As part of the building complex, the internal courtyard is enclosed by the building blocks, which connect the office building and the factory on the east side and the famous exhibition gallery of Royal Delft on the west side(fig. 34). Most of the central part of the courtyard is covered by a lawn, in the centre of which a rectangular pond runs parallel to the western gallery, the frame of which is decorated with ceramics and in which a fountain with ceramic components is located. A two-storey building in the west corner is connected to the factory, and a small door of Gothic design on the north side leads to the factory restaurant.

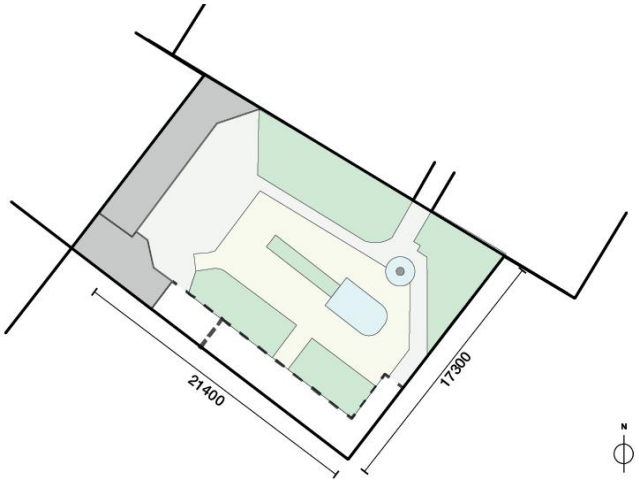


Figure 34: The courtyard plan.

The exhibition gallery runs the length of the courtyard on the west and south sides and serves to display a variety of architectural decorative ceramics. Gothic, Moorish, Romanesque and other forms of decoration are combined in this gallery as a framework to form a connected whole. The gallery is topped with a wooden structure covered with tiles,

the whole of which extends to the rear and is connected to the saddle-shaped roof of the exhibition space. From the inauguration of the building, this courtyard has had a special functional significance for the factory, where Porceleyne exhibits its own production of architectural ceramics, displaying model and experimental architectural decorative ceramics and tiles through outdoor and semi-outdoor spaces. The factory often invites architects, artists, homeowners and other people to visit the courtyard to provide inspiration for its potential customer base. These unique exhibits of architectural ceramics have developed over the years, along with the gallery itself, into an impressive collection. With this gallery, Porceleyne won the first prize at the Paris World's Fair in 1900(19).

Figure 35: Courtyard garden views with pond and fountain.
Stijn Brakkee, 2013, RCE Image Bank Stock Number: 10463-14783.

Figure 36: The gallery in the courtyard.
Stijn Brakkee, 2013, RCE Image Library Stock number: 10463-14775.

Figure 37: View from below gallery.

Stijn Brakkee, 2013, RCE Photo Library Stock number: 10463-14779.

Figure 38: View from outside gallery.

Stein-brackey, 2013, RCE Image Library Stock number: 10463-14777.

4. Production lines within building complexes

Both the office building and the factory premises were part of the porcelain production line. How porcelain is shaped, painted and then fired into a finished product was once the secret of Royal Delft's success, and the process is clearly explained in contemporary times(20). This production process was introduced by Joost Thooft and has been used for over a century today(21).

(1) First a total of ten raw materials are mixed into a clay mixture including china clay, chalk, water etc.. These mixtures are ground to a very fine paste in a ball mill.

(2) The clay paste is then solidified in a plaster mould and shaped. The dry, porous plaster absorbs water from the clay and helps to shape the clay into a hollow appliance.

(3) Once the porcelain is unmoulded, the artisan uses a scraper and a wet sponge to polish it smooth.

(4) The smooth, flat porcelain blank is covered with a thin layer of engobe and fired in the oven at 1160°C. The finished product is called a "biscuit".

(5) The painters in the office building decorate the white 'biscuits', using special brushes and black cobalt oxide paint, which is diluted with water to control the shade of colour.

(6) The painted 'biscuits' are sprayed with glaze in the factory and then fired in the kiln for 24 hours. When the temperature reaches 1200°C, the glaze melts and a transparent layer of glaze is formed and the black paint turns blue as a result of the chemical reaction.

(7) Finally after a thorough inspection, all ceramic products will be sold. De Porceleyne has its own physical shop on the ground floor of the office building, a shop that has been there since the building opened in 1930.

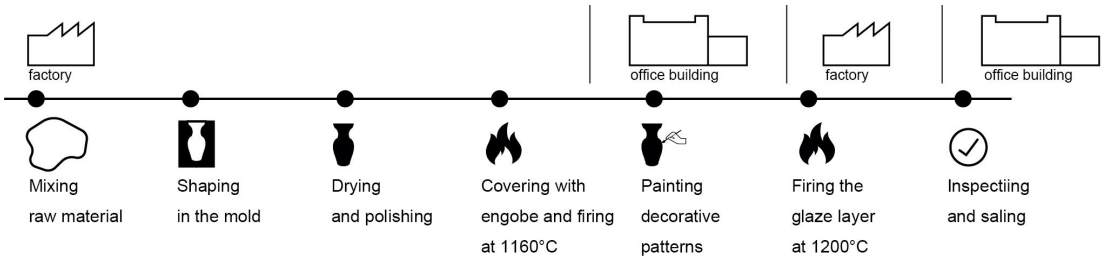


Figure 39: Delft blue production process.

5. Architecture design

This section focuses on the most important building in the factory complex, the office building, and provides a description and analysis of the design style.

5.1 Style

According to the monument register, the design style of the building was mainly influenced by the Late Amsterdam School and the New Objectivity.

5.1.1 The Amsterdam School

The Amsterdam School as an architectural style had a great influence on Dutch architectural design between 1910 and 1930. In the factory building, its architectural style is

mainly evident in the way brickwork is used, particularly the use of decorative masonry on the large vertical walls. There are also details such as the metal lettering under the letterboxes on the south elevation and the wrought iron brackets for the flagpoles that also show the Amsterdam School.

5.1.2 The New Objectivity

New Objectivity is reflected in the structure of the building and the way the façade opens up, with Van der Lee using a number of building materials that were widely used in New Objectivity, such as thin, large steel windows and other metal structures. The influence of this style is also clearly reflected in the floor plan, where the large room plan around the central traffic area differs from the common room layout of the time, not only in its freer layout, but also in its ability to help bring more natural light into the building.

5.1.3 American architectural style

In addition to these two influences, it is clear that van der Lee may also have been influenced by the American architectural style of the time. The vertical joints on its façade, the wide top eaves and the solid corner beams are features that were common in the architecture of Frank Lloyd Wright (1869-1959). Another notable example of Wright's architectural influence on the style of Dutch architecture at the time is A. T. Buurma's Acetylena building in the Hague(1925, fig. 40), which was directly inspired by Wright's Larkin building (1904, fig. 41)(22).

Figure 40: Carel van Bylandtlaan 16, Acetylena Building.

The Hague Municipal Archives Image Database Stock number: 0.14774.

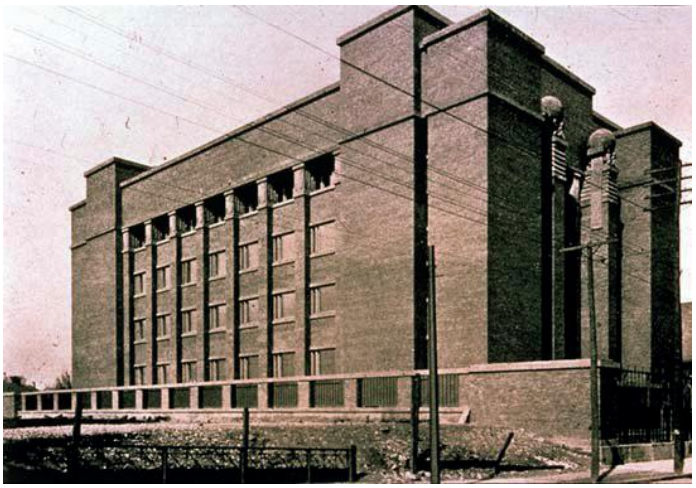


Figure 41: Larkin Building, side elevation.

From: https://www.archinform.net/projekte/1046.htm

It is not surprising that the American architectural style had an influence on the designs of van der Lee. From 1915 to 1930, stylistic architecture, and in particular the work of Wright, was very popular in the Netherlands. This was due to a speech by H.P. Berlage (1856-1934) in 1912 about Wright's work, which made the American architect famous in the Netherlands. Since then many architects, including the Amsterdam School, have delved into the American architectural style, and magazines such as Wendingen, Architectura and Bouwkundig Weekblad have begun to focus more and more on this aspect; Wendingen even published a seven-volume study of Wright in 1925(23). These reasons, combined with van der Lee's career as a lecturer, made it inevitable that he would come into regular contact with this aspect of design style.

5.2 The architect

Anton van der Lee is an architect and lecturer at the Faculty of Architecture at Delft University of Technology. Unfortunately, he has published very little as an architect and most of his publications have been published as textbooks for his students. Therefore little is known about him.

Anton van der Lee was born in 1859 in Aarlanderveen and died in Laren in 1955. He spent his career at the Delft University of Technology, where his work as a teacher and architect was known between 1890 and 1930(24).

Anton van der Lee's work is not extensive and five other buildings besides the

porceleyne have been recorded. By arranging them together, it is easier to compare the similarities and differences between them.

(1) Den Helder Naval Club

Hoofdgracht 21, Den Helder

Year built: 1903-1904

Year of demolition: 1977

The building was completed in collaboration with Roelof Kastelijn(25), the architectural architect of Den Helder, and van der Lee designed a new club for naval officers(26).

Figure 42: The Navy Club.

From Afgestoft Den Helder, author Cees Rondel, 2017

(https://www.afgestoftdenhelder.nl/2017/05/526-naval-club/).

(2) Aarlanderveen Reformed Church

Dorposstraat 38, Aarlanderveen

Year of construction: 1904

National Monument 7515

The original old church had to be demolished due to the poor condition of the building, so van der Lee designed a new church together with the architect M. Quartel. The design of this church is very plain compared to the more ornate work of van der Lee's other works(27).

Figure 43: Aarlanderveen reformed church.

From Leidschdagblad.nl, door Erna Straatsma, 2021 (https://www.leidschdagblad.nl/cnt/DMF20210120_45542906?utm_source=google&utm_medium=organic).

(3) Four residences in Rotterdamseweg, Delft

Rotterdamseweg 99-103

Year of construction: 1905

Van der Lee designed the houses for four professors of the Delft University of Technology, which still exist today(28).

Figure 44: Residential houses on Rotterdamseweg.

By A.P.I. Kerklaan, 1981, Stock number 130640, City Archives, Delft.

(4) Orphanages and kindergartens

Koningsplein 81-83, Delft

Year of construction: 1905

This orphanage and kindergarten is built of brick and stone with a distinctly neoclassical element, and its façade is decorated with architectural ceramics produced in porceleyne(29).

Figure 45: The school building in Kings Place.

By G.J. Drukker, 2004, RCE Image Bank Inventory Number 502.662.

(5) Shops and flats in Delft Market

Marktstraat 1, Delft

Year built: 1913

National Monument 525337

The building is located on a corner at the edge of the Delft market and is registered on the National Heritage List as being constructed mainly of transitional-style brick and natural stone, with elements of the Berlage style(30).

Figure 46: The building on the Delft Market.

From: Van Wikimedia, by Farlukar, 2020

(https://nl.m.wikipedia.org/wiki/Bestand:Markt_1_Delft_noordoosthoek.jpg).

(6) Factory office building in De Porceleyne

Rotterdamseweg 196, Delft

Year built: 1930

National monument 525284

Anton van der Lee's work consists entirely of buildings that are not entirely similar, and as he often works with other architects, no one architectural style can be attributed entirely to him. In general, in his architectural practice he mainly tries to combine the neoclassical style with the modernist style. This can be seen in the architecture of the Delft Market and the kindergarten.

6. The value of factory building complexes

In discussing the value of the architectural complex, we will focus primarily on the office building designed by van der Lee, as well as the courtyard within the building, including the highly historic and scarce collection of architectural ceramics in the courtyard.

6.1 General historical value

6.1.1 The office building

The Porceleyne office building is a rare example of ceramics production that was important to the economic development of the Delft region from a socio-economic point of view and is today the only one of more than thirty ceramics factories that have been established in Delft, making it one of the few remaining old ceramics factories in the Netherlands.

6.1.2 The courtyard

The architectural ceramics in the courtyard are an important example of the very influential De Porceleyne production line, a range that had a major impact on Dutch architecture in the first half of the twentieth century. The factory not only produced to order, but also designed in-house, leaving the museum with a unique and well-preserved collection.

6.2 Overall historical value

6.2.1 The office building

The building serves as a good example of how the ceramics industry struggled to find places to develop outside Delft's city limits after the 19th century. The building is an important part of the history of factory expansion in the era when Delft Blue products were sold all over the world.

6.2.2 The courtyard

As the building's internal garden, together with the adjacent showroom and the oldest factory building, it was part of the first phase of the factory construction.

6.2.3 Location

De Porceleyne is located on the Delftse Schie, a good example of a historical concentration of factories using this canal for trade production.

6.3 Historical value of the building

This building is one of the most outstanding examples of the relatively unknown work of architect Anton van der Lee.

The high quality of the façade treatment, the consistency of the internal and external spaces and the high level of natural light coordination are all important features of van der Lee's architectural design. The building itself is also a superb example of functionality tailored to the building's purpose.

The building is the product of a combination of traditional and New Wave thinking, with characteristics of the late Amsterdam School, as well as structural and design influences from the New Objectivity, Rationalism and American architectural styles.

The building has survived without much outside intervention, and its high quality of original design and structural integrity make it an excellent example of a well-preserved Dutch ceramic factory building.

6.4 Social and cultural values

6.4.1 The office building

The ground-frame structure is a fine example of the combination of rolled steel and precast concrete construction, a method of construction that emerged in the early days of new architecture and which had a great influence on the development of Dutch

architecture.

The bespoke ceramic components of the building façade and courtyard are unique and their high level of craftsmanship and scarcity ensure that they are appreciated in their own right. These decorative objects, which existed only in the building, also became the only form of expressionist decoration in the architect's work.

6.4.2 The courtyard

The series of architectural ceramics on display in the courtyard gallery illustrate the various styles of architectural decoration that were popular in Dutch society at the beginning of the 21st century, and are of great value for the study of the society and culture of the period.

6.5 Functional use value

6.5.1 The office building

The building has been used as an office and painting workshop since its construction, and although many of the painting rooms have been used for other functions today, the company's management and some of the painters still work in the building. The building's productive value in the production of Delft blue porcelain has therefore been preserved intact.

Figure 47: Pattern makers are working.

De Porceleyne Fles, Stock number 128891, City Archives, Delft.

6.5.2 The workshop

The part of the building complex that served as a porcelain production workshop is still in production today, recalling the golden age when Delft Blue was an international bestseller.

7. Conclusion

Royal Delft's office building is the most prominent part of its factory building complex. The building was built in 1930 and was commissioned from architect Anton van der Lee in order to move the last part of the company to a new location in Rotterdamseweg. van der Lee's entire body of work is focused on Delft and the surrounding area. The building has played an important role in his career and is a prime example of his architectural style.

The building has been designed as a collection of offices and painting workshops where the board of directors, office staff and painters have their own working spaces. The need for light in the special working environment is also reflected in the window openings on the façade. The most distinctive features of the building are the all-steel support structure and the architectural ceramic components produced in-house by Porceleyne. The overall structure and layout of the building has remained virtually unchanged over the years, which has allowed its value as part of the factory production line to be well preserved.

The surviving body of the building and the factory production process it hosts enable us to make a good study of the history of the factory from the 17th century to the present day, as well as the development of indigenous architecture in the Netherlands in the early 20th century. The socio-cultural and historical value behind this complex is invaluable. As a production space it has a historical continuity, the conditions of the factory have been preserved to this day, as a museum and gallery it is a valuable collector's item and all the architectural ceramics used in the building are unique and well preserved, making it an important historical evidence for the study of the period.

Note list

(1) see Spaander(1986), pp. 9-10.

(2) see Spaander(1986), pp. 10.

(3) see Burkom et al. (2001), pp. 24-28.

(4) see Spaander(1986), pp. 9-10 and Ten Horn-Van Nispen(1986), p. 12.

(5) see Ten Horn-Van Nispen(1986), p. 11.

(6) see Ten Horn-Van Nispen(1986), p. 12.

(7) see Ten Horn-Van Nispen(1986), p. 12-15.

(8) see ‘tekst open dagen tour’ of Porceleyne Fles(unpublished).

(9) see Ten Horn-Van Nispen(1986), p. 12-14.

(10) see ‘tekst open dagen tour’ of Porceleyne Fles(unpublished).

(11) see Ten Horn-Van Nispen(1986), p. 15.

(12) see the unpublished article of Porceleyne Fles(unpublished).

(13) see Ten Horn-Van Nispen(1986), p. 16.

(14) see the unpublished article of Porceleyne Fles(unpublished).

(15) according to Leo Bredie's findings during the restoration. See: monumenten.nl (2021), and Monumentaal(2017).

(16) see Arends st al. 1988.

(17) see Arends st al. 1988.

(18) see Arends st al. 1988.

(19) see National Heritage List.

(20) see ‘over ons ambacht’ of the Porceleyne Fles website(2021).

(21) see Gaillard(1986), p. 52.

(22) see Woud(1975), p. 39.

(23) see Woud(1975), p. 21.

(24) see register HNI and website van der Lee(2021).

(25) see Rondèl (2017), article 345.

(26) see Rondèl (2017), article 526.

(27) see information about the monumentenregister, No. 7515.

(28) see Kemenade 2015.

(29) see information about the monumentenregister, No. 525307.

(30) see information about the monumentenregister, No. 525337.

Sources

Arends, G.J., Eldik, C.H. van, Nieuwmeijer, G.G. & Oosterhoff, J. (1988). Bouwtechniek in Nederland 1: constructies van ijzer en beton. Delft: Delftse Universitaire Pers & Rijksdienst voor de Monumentenzorg.

Bock, M. (1982). Hoe nieuw en wat is het Nieuwe Bouwen?. In Nederlands Documentatiecentrum voor de Bouwkunst (red), Het Nieuwe Bouwen: voorgeschiedenis. (pp. 6-22). Delft University Press.

Burkom, F. van., Gaillard, K., Koldeweij, E., Schulte, T. en Willink, J. (2001). Leven in toen, vier eeuwen Nederlands interieur in beeld. Zwolle: Waanders Uitgevers.

DelftsAardewerk.nl. (2021). Hoe werd Delfts aardewerk geproduceerd? https://www.delftsaardewerk.nl/ontdekken/hoe-werd-delftsaardewerk-geproduceerd

Gaillard, K. (1986). De wedergeboorte van De Porceleyne Fles. In Bogaers, M.R., Gaillard, K. en Ten Horn – van Nispen, M.L. (ed.), De Porceleyne Fles, de wedergeboorte van een Delftse aardewerkfabriek (pp. 51-70). Utrecht: Veen uitgeverij.

Groot, A. de. (1982). Rationeel en functioneel bouwen 1840-1920. In Nederlands Documentatiecentrum voor de Bouwkunst (red), Het Nieuwe Bouwen: voorgeschiedenis. (pp. 6-22). Delft University Press.

Hendriks, L. & Hoeve, J. van der. (2009). Richtlijnen voor het bouwhistorisch onderzoek. Amersfoort: Rijksdienst voor het Cultureel Erfgoed.

Hervormdaarlanderveen.nl. (2021). Geschiedenis Hervormde Kerk. http://www.hervormdaarlanderveen.nl/geschiedenis_hervormde_kerk/

Het Nieuwe Instituut. (2021). Gegevens Anton van der Lee.
https://zoeken.hetnieuweinstituut.nl/nl/personen/?q=anton%20van%20der%20lee

Kemenade, M. van. (2015). Rotterdamseweg 99, in 1906 van weiland naar professorenhuis. AchterdegevelsvanDelft.nl.
https://www.achterdegevelsvandelft.nl/huizen/Rotterdamseweg99.html

Leeuwen, T. van. (1975). De commerciële stijl. In Rijksmuseum Kröller Müller (red.), AMERICANA 1880-1930. (pp. 51-90). Amsterdam: Uitgeverij Van Gennep.

Monumentaal (red). (2017). Delfts icoon blijft verrassen: monumentaal fabriekspand Royal Delft in oude glorie hersteld. In tijdschrift Monumentaal (editie onbekend, intern afdrukvoorbeeld beschikbaar gesteld door de Porceleyne Fles).

Monumenten.nl. (2021). De Porceleyne Fles: niets is wat het lijkt.
https://www.monumenten.nl/verhalen/de-porceleyne-fles-niets-is-wat-het-lijkt

Porceleyne Fles. (z.d.). Bouwaardewerk. [niet gepubliceerd]. Delft: N.V. Koninklijke Porceleyne Fles.

Porceleyne Fles. (z.d.). Bouwhistorie. [niet gepubliceerd]. Delft: N.V. Koninklijke Porceleyne Fles.

Porceleyne Fles. (z.d.). Tekst voor open dagen tour. [niet gepubliceerd]. Delft: N.V. Koninklijke Porceleyne Fles.

Porceleyne Fles. (z.d.). Over ons ambacht. https://royaldelft.com/over-het-ambacht/

Rijksdienst voor het Cultureel Erfgoed (1972). Registratie monument 7515. Geraadpleegd op 17

januari 2021, https://monumentenregister.cultureelerfgoed.nl/monumenten/7515.

Rijksdienst voor het Cultureel Erfgoed (2002). Registratie monumentencomplex 525283. Geraadpleegd op 10 januari 2021. https://monumentenregister.cultureelerfgoed.nl/monumenten/525283.

Rijksdienst voor het Cultureel Erfgoed (2002). Registratie monument 525284. Geraadpleegd op 10 januari 2021. https://monumentenregister.cultureelerfgoed.nl/monumenten/525284.

Rijksdienst voor het Cultureel Erfgoed (2002). Registratie monument 525285. Geraadpleegd op 10 januari 2021. https://monumentenregister.cultureelerfgoed.nl/monumenten/525285.

Rijksdienst voor het Cultureel Erfgoed (2002). Registratie monument 525286. Geraadpleegd op 10 januari 2021. https://monumentenregister.cultureelerfgoed.nl/monumenten/525286.

Rijksdienst voor het Cultureel Erfgoed (2002). Registratie monument 525307. Geraadpleegd op 16 januari 2021. https://monumentenregister.cultureelerfgoed.nl/monumenten/525307.

Rijksdienst voor het Cultureel Erfgoed (2002). Registratie monument 525337. Geraadpleegd op 16 januari 2021. https://monumentenregister.cultureelerfgoed.nl/monumenten/525337.

Rondèl, C. (2017). 345 - Architectuur tentoonstelling & tuinfeest Roelof Kastelijn. https://www.afgestoftdenhelder.nl/2017/07/architectuur-tentoonstelling-tuinfeest-roelofkastelijn/

Rondèl, C. (2017). 526 - Marineclub.AfgestoftDenHelder.nl. https://www.afgestoftdenhelder.nl/2017/05/526-marineclub/

Spaander, I. (1986). Het Delfts faïence. In Bogaers, M.R., Gaillard, K. en Ten Horn – van Nispen, M.L. (ed.), De Porceleyne Fles, de wedergeboorte van een Delftse aardewerkfabriek (pp. 9-10).

Utrecht: Veen uitgeverij.

Ten Horn – van Nispen, M.L. (1986). Geschiedenis van de Delftsch Aardewerkfabriek De Porceleyne Fles. In Bogaers, M.R., Gaillard, K. en Ten Horn – van Nispen, M.L. (ed.), De Porceleyne Fles, de wedergeboorte van een Delftse aardewerkfabriek(pp. 1-17). Utrecht: Veen uitgeverij.

Van der Lee. (2009). Architect Anton van der Lee. Blog Van der Lee. http://www.vanderlee.net/blog/2009/08/28/monumententocht-mededemogelijk-gemaakt-door-architect-a-van-der-lee/

Verbrugge, B. D. (1984). De Porceleyne Fles: tegeltableaux en bouwaardewerk 1876-1940. Delft: B. Verbrugge.

Wellenberg, M. (2017). Monumentenwacht begeleidt restauratie Porceleyne Fles. https://www.monumentenwacht-zh.nl/nieuwsklantverhalen/nieuws/2017/monumentenwachtbegeleidt-restauratie-porceleyne-fles/

Woud, A. van der. (1975). De Nieuwe Wereld. In Rijksmuseum Kröller Müller (red.), AMERICANA 1880-1930. (pp. 8-27). Amsterdam: Uitgeverij Van Gennep.

Woud, A. van der. (1975). Variaties op een thema. In Rijksmuseum Kröller Müller (red.), AMERICANA 1880-1930. (pp. 28-40). Amsterdam: Uitgeverij Van Gennep.

Woud, A. van der. (1975). Hoogbouw in de lage landen. In Rijksmuseum Kröller Müller (red.), AMERICANA 1880-1930. (pp. 41-50). Amsterdam: Uitgeverij Van Gennep.