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THE RESTORATION OF AN EXCEPTIONAL DECORATIVE ENVIRONMENT

The facades of the Grand Place

United Nations
Educational, Scientific and
Cultural Organization

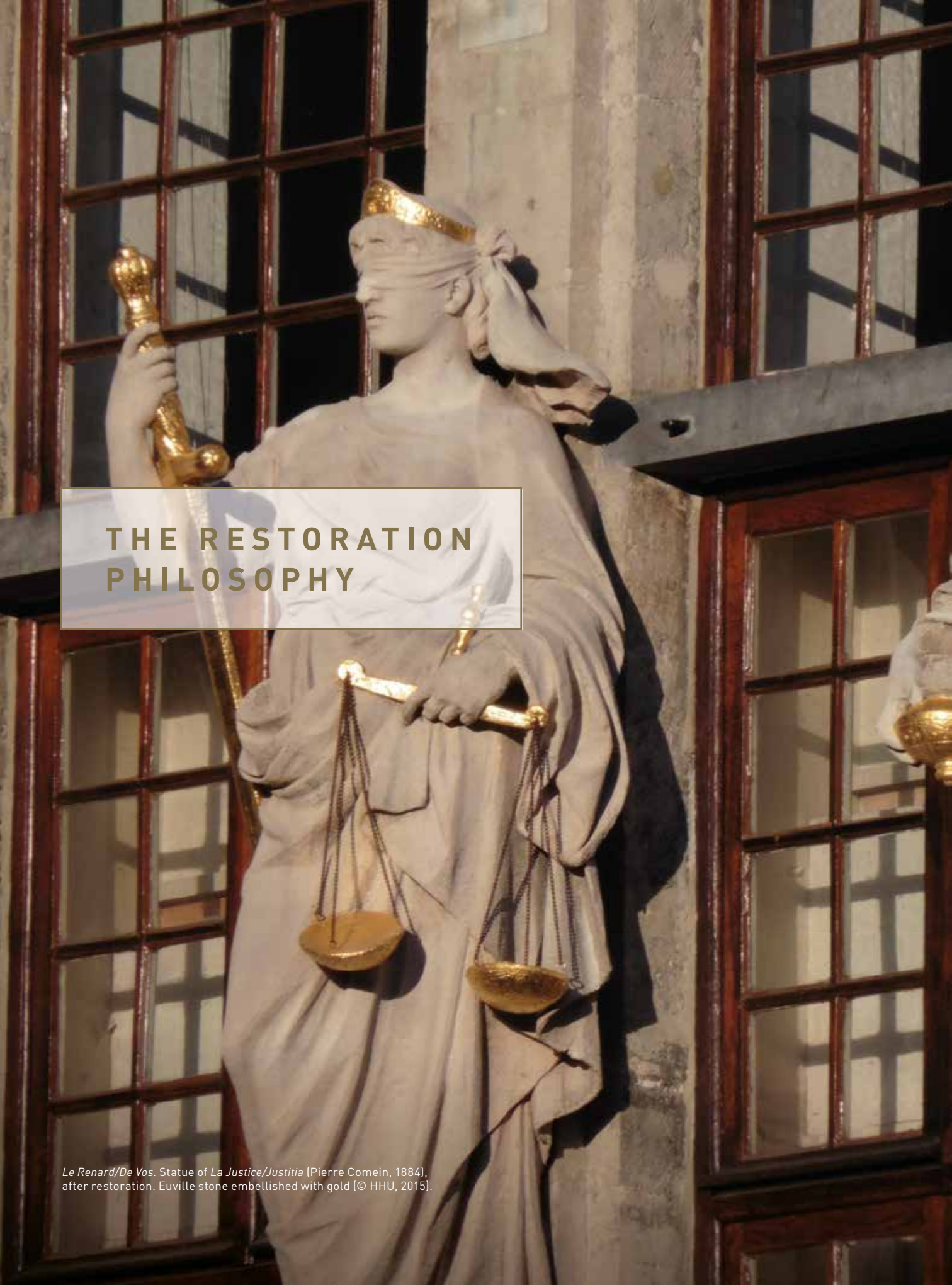
La Grand-Place, Brussels
inscribed on the World
Heritage List in 1998


ouvert
CBC
CBC
open - ouvert

THE RESTORATION WORKSITE 2004-2018

Block 1 to 7, Grand Place. Installation of scaffolding with tarpaulins printed with life-size colour photographs of the façades (© HHU, 2014).

THE RESTORATION PHILOSOPHY



Le Renard/De Vos. Statue of *La Justice/Justitia* (Pierre Comein, 1884), after restoration. Euville stone embellished with gold (© HHU, 2015).

The preliminary studies determined all the principles adopted for the restoration of the façades: the preservation and maintenance of as many of the existing materials as possible, as well as of all the traces that attest to their history. Based on historical elements, these restorations of the façades preserved what had been achieved during the restoration campaign of the late 19th and early 20th centuries. With this latest intervention, the recommendation is for long-term conservation, rather than regular, one-off repairs.

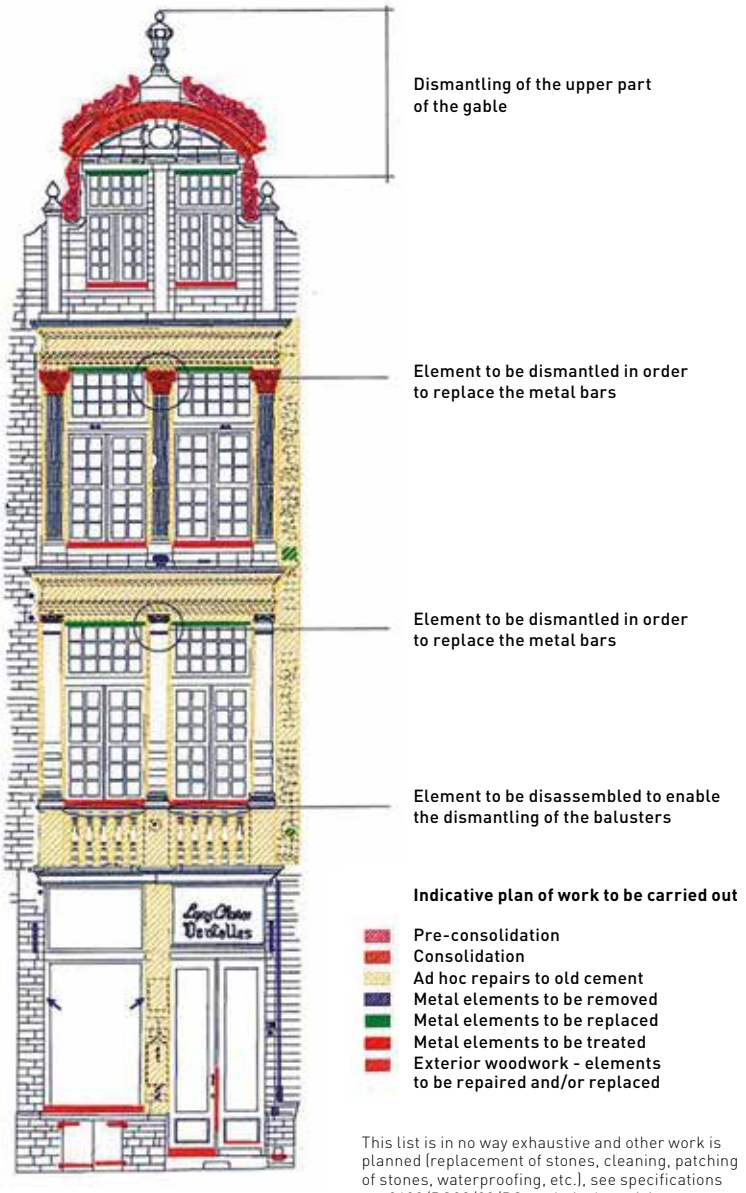
Once again, a Supervisory Committee was formed, with specialists and members from the Monuments and Sites Directorate and experts from the Royal Commission for Monuments and Sites, in order to oversee the work.

Given the importance of the site, special attention was given to the worksite established at the foot of each building[1]. This included explanatory panels on the history of the buildings and their future restoration. A decorative tarpaulin was also placed on the front of the scaffolding, reproducing the façades in life-size photographs.

The restoration operations were carried out in different stages as described below.

NOTE

1. See chapter on Principles of interventions, p. 14.



Drawing of the façade of *L'Âne/Den Ezel*, outline of the interventions to carry out (© HHU, 2002).

CLEANING

Le Roi d'Espagne/Den Coninck van Spaignien. Detail of the statue *La Prévoyance - Minerve/De Voorzorg – Minerva* (Isodore De Rudder, 1898) after cleaning, with detail of the size of the grain of the Euville stone and preparatory base layers for gilding dating from a previous era (© L. Haesebrouck, 2014).

The purpose of the cleaning process was to remove all forms of dirt and deposits on the facing. This operation had to ensure that the calcin layer, which provides natural protection for the stone and gives it its patina, was preserved.

The low pressure hydro-pneumatic swirling vortex technique was used to clean the façades. This technique involves using a mixture of water, air and aggregate (olivine), sprayed at low pressure (under 2 bar), which gently cleans the stone as well as the surface.

Cleaning the façades revealed the general condition of the facing as well as the numerous repairs completed during previous restorations, primarily in the 19th century. Prior to cleaning, a biocide was applied to surfaces where moss and lichen were present.

Le Renard/De Vos, cleaning the pedestal of the statue of *La Justice/Justitia* (Pierre Comein, 1884). Euville stone. Low pressure hydro-pneumatic swirling vortex technique (© HHU, 2014).

La Maison des Brasseurs/Het Brouwerhuis. Cleaning test. Detail of rustic bossages on columns. Balegem stone. Low pressure hydro-pneumatic swirling vortex technique (© HHU, 2004).

Le Roi d'Espagne/Den Coninck van Spaignien. Sculpture of *L'Eau - Neptune/Het Water – Neptunus* (Isodore De Rudder, 1898) decorating the balustrade, before (a) and after (b) cleaning. Euville stone (© HHU, 2014).

La Maison des Brasseurs/Het Brouwerhuis. Details of one of the apron panels on the 2nd floor depicting the harvest (Pierre Van Dievoet, 1698). Most likely Avesnes stone. a) Build-up of dirt on sculpted *putti* prior to restoration, with partial cleaning on the left; b) Application of compresses composed of an ammonia-based cellulose paste to soften the black crust; c) Finalising cleaning using a micro-sandblaster; d) Condition after cleaning (© HHU, 2004).

La Maison des Brasseurs/Het Brouwerhuis. a) Condition before restoration: biological growth (moss), dirt and black crust (atmospheric pollution), metal oxide stains, etc. (© HHU, 2000); b) Condition after restoration (© Utopix, M. Ploton, 2018).

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REPAIRS TO STONES

Le Pigeon/De Duive. Detail of a restored mascaron. Unknown stone (© Utopix, M. Ploton, 2018).

In order to preserve as many of the existing stones as possible, some were artificially hardened while other, more damaged, stones were restored with a special mortar. Structural sealing and filling in any gaps should restore the surface consistency of the stone by closing off routes for water penetration, by strengthening areas that have become weakened due to a lack of material, and by restoring the formal definition of the composition. In cases where the amount of damaged surfaces had become too extensive, grafts were envisaged for the facing.

Details on any decorative elements that had become unrecognisable or were missing were only replaced where complete, reliable information was available on their original condition. Firstly, in this specific case, moulds were made of the elements concerned. When deciding which parts to reproduce, consideration had to be given to their form, volume and rate of erosion. The moulds had to produce a faithful reproduction of the smallest details of the original stereotomy and were not, under any circumstances, to damage the original piece. The new stones have the same constitution, dimensions, type of cut, thickness of joints, texture, colour and patina as the stones to be replaced.

The workmanship of the Gobertange stone facing is characterised by extremely thin joints (2 to 4 mm) that are often in a good state of repair. Scraping out the mortar from these joints was therefore only considered for very localised areas which showed signs of damage that was likely to encourage the penetration of rainwater run-off into the body of the brickwork.

The mortar used during the restorations was made up so as to match the composition and appearance of the existing cement-lime mortars.
The blue stone lintels of the windows, which had large cracks, were reinforced with stainless steel crossbars. A low viscosity epoxy resin was injected into smaller cracks. Lead flashing was fitted to the horizontal surfaces of projecting sections.

La Brouette/Den Cruywagen. Detail of scrollwork with red chalk marking the parts to be repaired with smoothing mortar. Euville stone (© HHU, 2014).

La Brouette/Den Cruywagen. Mouldings undergoing restoration and repair with smoothing mortar. Euville stone (© HHU, 2014).

Samples of smoothing mortar created for comparison with the stones to be repaired and to choose the texture, grain size and colour. This palette of samples is kept on the site at all times (© HHU, 2014).

The expert restorer's toolkit (© HHU, 2014).

Le Pigeon/De Duive. Restoration in progress with smoothing mortar (twisted element of the mascaron). Unknown stone (© HHU, 2012).

Le Pigeon/De Duive. Detail of a baluster undergoing restoration and repair with smoothing mortar. Marble type Euville stone (© HHU, 2012).

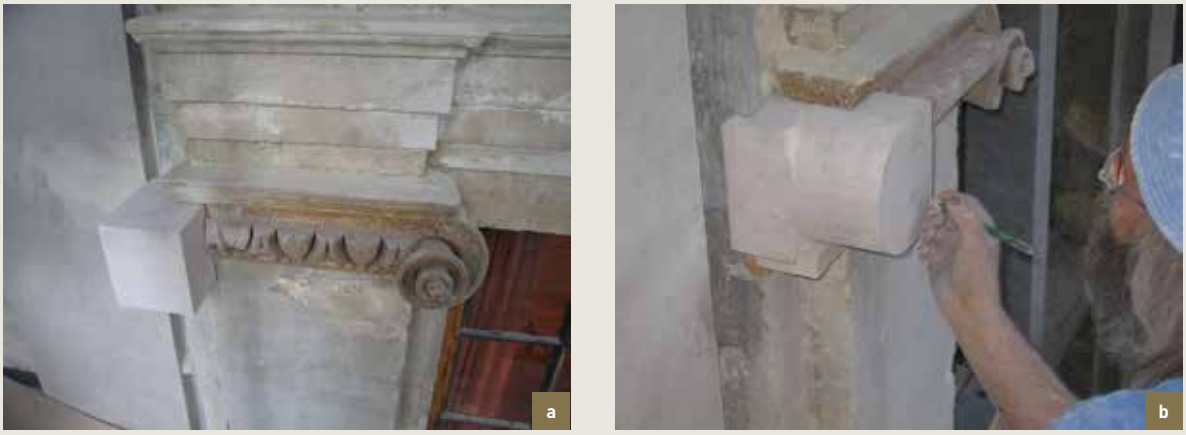
Le Roi d'Espagne/Den Coninck van Spaignien. Detail of bas-relief depicting the *Trophée de Charles II/Trofee van Karel II*. Repairwork on the crown in progress. Smoothing mortar and Euville stone (© HHU, 2014).

La Louve/De Wolvin. Flame finial on the pediment undergoing repair. French stone (© HHU, 2014).

Le Pigeon/De Duive. Detail of two capitals undergoing repair. Unknown stone (© HHU, 2012).

L'Ange/Den Engel. Capital undergoing restoration. Euville stone (© HHU, 2012).

Le Cygne/De Swane. a) Chiselling of entrance steps in progress, based on the existing model. Blue stone; b) Finished job (© HHU, 2008).

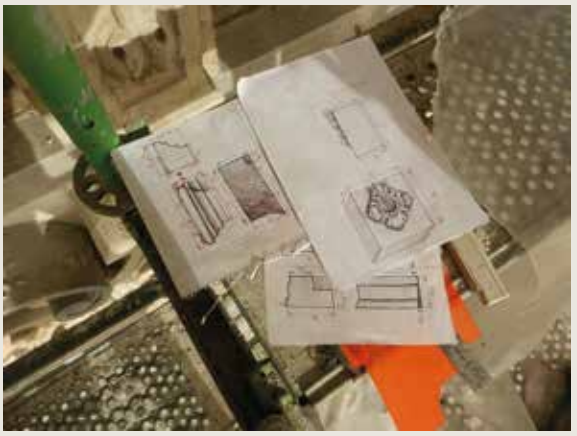


La Rose/De Roose. First floor, volute on a capital undergoing restoration: a) Integration of a Massangis stone graft; b) Sculpting in progress; c) Finished element (© HHU, 2008).

La Maison des Brasseurs/Het Brouwerhuis. Detail of the blue stone dolphins on the gable. a) On the left, blue stone dolphin being used as a model for the missing element on the dolphin on the right; b) On the right, dolphin with missing tail fin; c) Cast of the tail fin of the dolphin on the left and new blue stone element to be used to repair the dolphin on the right. Cast made from fibreglass-reinforced polyester resin and new blue stone sculpture; d) The new blue stone element fitted to the dolphin on the right (© HHU, 2008).

Le Sac/Den Sack. Stages in restoring a capital: a) Damaged condition; b) Removal of element; c) Moulding of a capital in good condition; d) Silicone mould with fibreglass-reinforced polyester shell; e) Plaster positive; f) New sculpture made from Savonnière stone; g) Integration of the stone element (© HHU, 2014-2015).

New stones delivered to the worksite to carry out the repairs required as a result of the chipping of stones due to corroding metal elements. Gobertange stone and blue stone (© HHU, 2015).



Sketches made by the sculptors during the project (© HHU, 2015).

L'Étoile/De Sterre. Repointing with mortar (© Daylight, 2008).

L'Âne/Den Ezel. Blue stone threshold. Injection of product (two-component epoxy) via small holes prepared for this purpose (© HHU, 2003-2004).

L'Étoile/De Sterre. a and b) Injection of grout (© HHU, 2008).

STRUCTURAL WORK - DISMANTLING THE GABLES

La Brouette/Den Cruywagen. Structural work on the gable. Detail of arched pediment being reassembled, following the stability problems detected. Euville and Gobertange stone. Replacement of old bronze staples with new ones made of stainless steel (© HHU, 2014).

A detailed survey of the stones was carried out, with the stones being numbered before certain gables were dismantled following the structural study. A worksheet was prepared for each dismantled stone, containing photos, a statement of its exact dimensions and a description of the main treatments to be performed (smoothing, grafts, replacement, etc.).

The different stones were assembled using metal staples sealed in lead. These elements were cut during dismantling to avoid damaging the stones. The stones were removed up to the corroded metal girders, the cause of the damage, so that they could be replaced. The elements that were dismantled were then transported to a workshop for restoration or replacement. The elements that were retained were cleaned using the same hydro-pneumatic swirling vortex technique used for the façades.

The metal girders were replaced with new elements made from stainless or, on a case-by-case basis, galvanised steel, and the stones were reassembled with staples, also made from stainless steel, by means of chemical anchoring.

When reassembling the stones forming the gables, the lean was corrected and the stones levelled. The stones were repointed with cement-lime mortar whose composition was determined on the basis of prior testing.

Other metal elements in the façades (beams and bars) also showed signs of deterioration due to atmospheric conditions. Rusted metal forms stratified layers of corrosion over time. This corrosion has an expansive effect and exerts pressure on the stones of the facing, which then crack or break. These elements were either treated *in situ* (brushed, protected with an anti-corrosion product, then painted), or replaced with stainless steel pieces that were also painted.

The anchors in the party wall of *L'Âne/Den Ezel*, which are visible on the façade, were partially replaced with stainless steel pieces. Other ironwork elements in good condition, such as anchors, staples and metal beams, were carefully sanded and treated with a rustproof product.

Sainte-Barbe/Sint Barbara. a) Detail of the stone to be replaced, marked with a cross using red chalk; b) New Gobertange stone elements and stainless steel bars (© HHU, 2015).

Le Cerf/ De Heert. a) Shoring of Euville masonry and fitting of metal clamp in order to remove the corroded metal beams; b) Installation of new galvanised steel beams (© HHU, 2008).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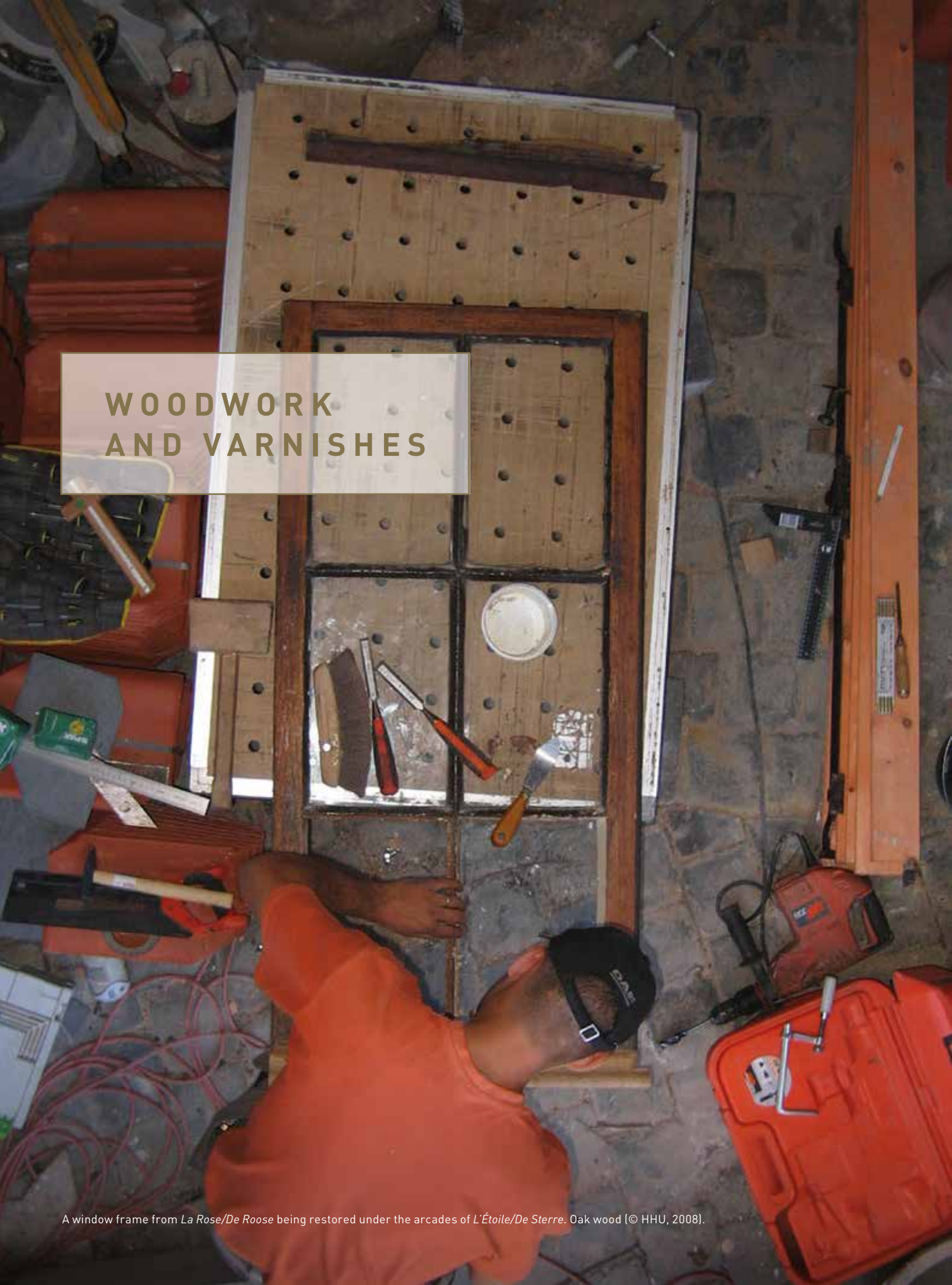
L'Âne/Den Ezel. Stages in the restoration of the arched pediment, from pre-restoration condition to complete reassembly. Euville stone. a) Damaged condition; b) Disassembly in progress; c) Old numbering of stones and corroded staple; d) New marking of stones prior to disassembly; e) Removal of corroded metal beams; f) Replacement of metal beams; g) Cleaning and restoration of stones in workshop; h) and i) Reassembly of restored elements; j) General view after these operations (© HHU, 2003-2004).

WOODWORK AND VARNISHES



A window frame from *La Rose/De Roose* being restored under the arcades of *L'Étoile/De Sterre*. Oak wood (© HHU, 2008).

The archives documenting the 19th century restorations show that most of the woodwork had been replaced and varnished[1]. This is made from oak and was found to be in a good state of general repair. The woodwork was covered in numerous layers of ebony brown paint.

The window frames were stripped by hand using an abrasive product. Ad hoc repairs were carried out using grafts of wood of the same type (the replacements mainly concerned the weatherboards and sills). A brown-coloured varnish was applied to the entire frame based on the results of stratigraphic sampling. After repair work, the putty was painted the same colour as the woodwork.

La Brouette/Den Cruywagen. Stripping window frames by hand. Oak wood (© HHU, 2014).

NOTE

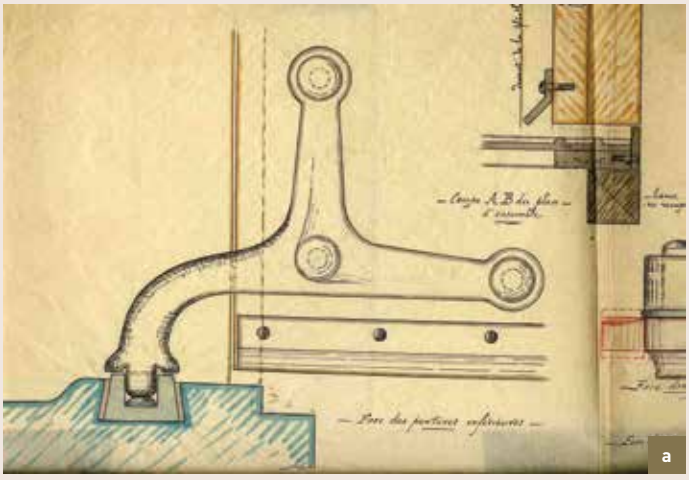
1. During the restoration work, an examination of the hardware and fastenings revealed that certain frames appeared to date from an earlier period. This therefore needs to be studied in more detail.

La Rose/De Roose. Damaged oak wood pieces. a) A weatherboard (lower part of window frame) requiring replacement; b) A window sill requiring replacement (© HHU, 2014).

Le Paon/Den Pauw. Full-scale drawings from the archives helped to recreate the sections accurately (© HHU, 2015).

Le Pigeon/De Duive. Replacement of sill and weatherboard and fitting of grafts. Oak wood (© HHU, 2008).

Restored window frame. Oak wood (© HHU, 2015).

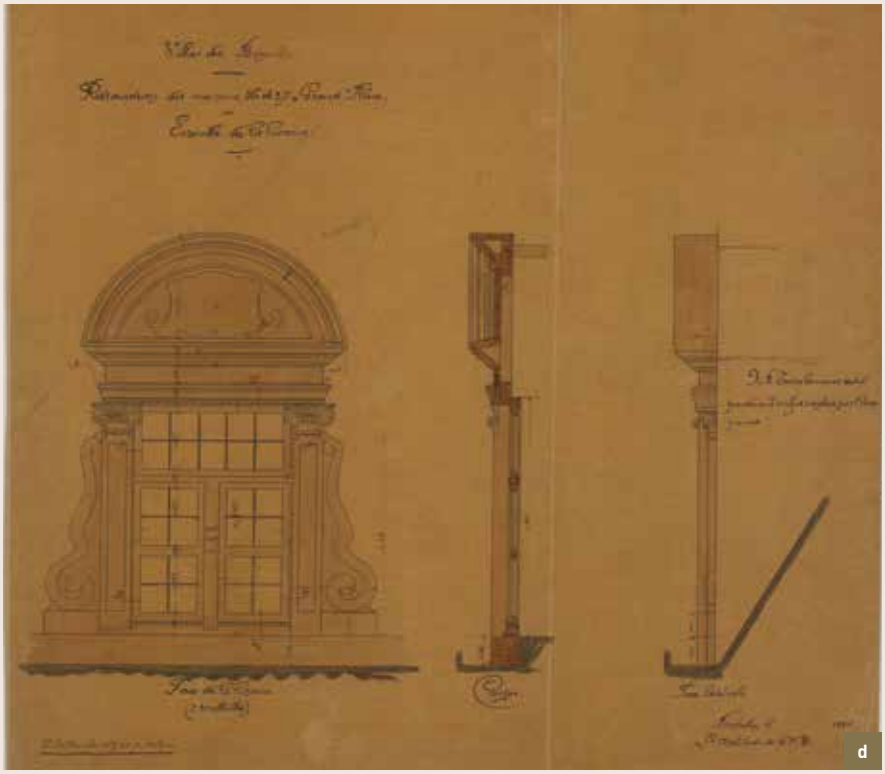


Le Cygne/De Swane. Restoration of cellar doors with their hinges. a) Archive drawing used to manufacture new hinges; b) Oak door in place. Presentation of resin mock-up of the hinges for approval of the model (© HHU, 2008 and AVB).

L'Ange/Den Engel. Installation of imitation blue stone mullions made of wood. They can be dismantled to facilitate removals (© HHU, 2008).

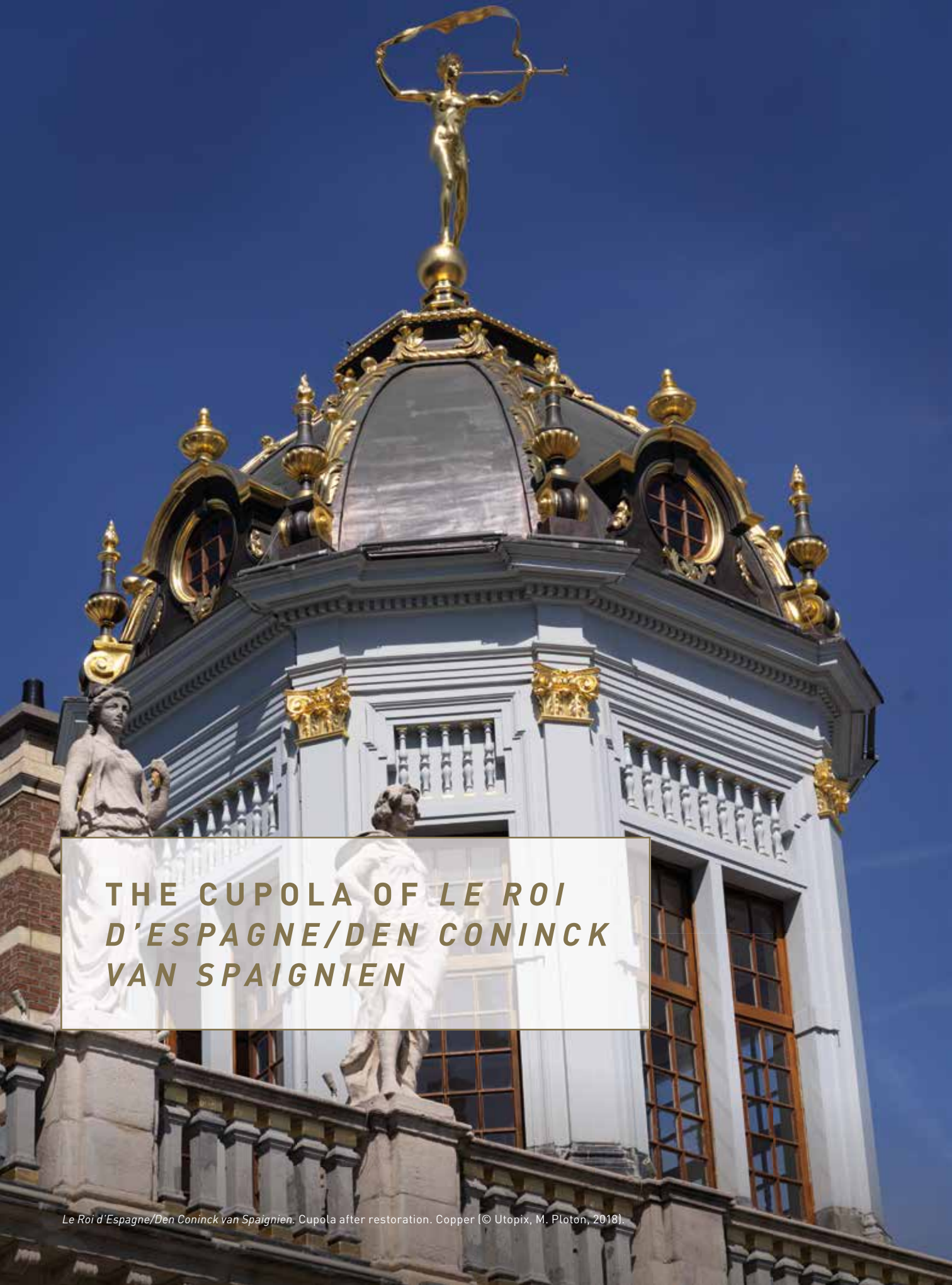
Le Cygne/De Swane. Certain non-oak frames were painted in imitation oak (© HHU, 2008).

La Maison des Brasseurs/Het Brouwerhuis. The noticeable bulge in the stained glass was straightened after the glass had been removed (© HHU, 2008).



Le Petit Renard et le Chêne/Het Vosken en Den Eycke: Restoration of two oak dormer windows. a) Windows before restoration work; b) and c) Damaged wood and lead flashing, cracks, flaking paint and gilding; d) Archive drawing; e) Restoration in workshop with reinforcement of consoles and integration of grafts, replacement of parts that were too badly damaged; f) consolidation of a capital with insertion of grafts (© HHU, 2016 and AVB).

Le Petit Renard et le Chêne/ Het Vosken en Den Eycke. After restoration (© Utopix, M. Ploton, 2018).



THE CUPOLA OF *LE ROI D'ESPAGNE/DEN CONINCK VAN SPAIGNIEN*

Le Roi d'Espagne/Den Coninck van Spaignien. Cupola after restoration. Copper (© Utopix, M. Ploton, 2018).

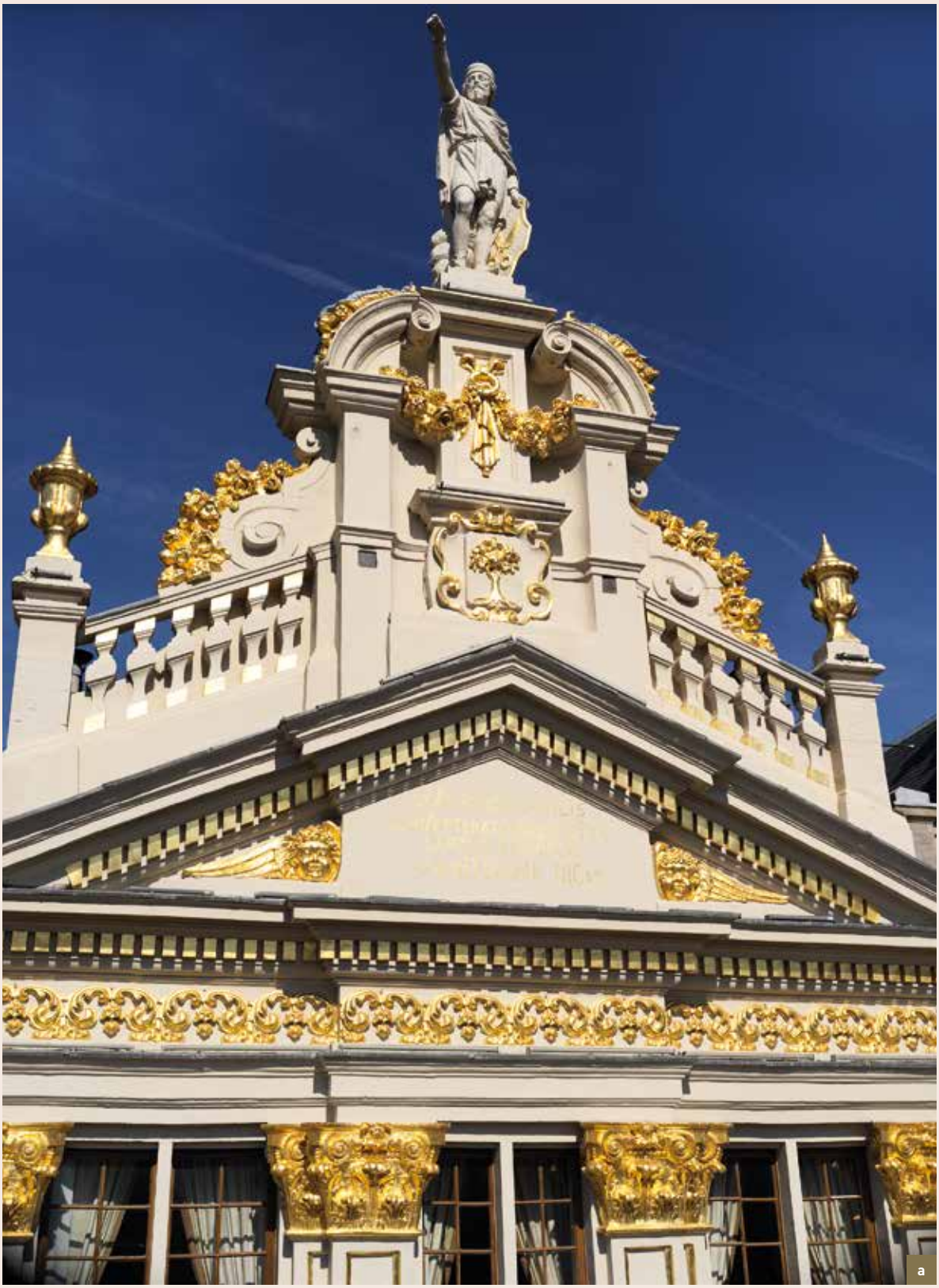
The copper cupola of the *Roi d'Espagne/Den Coninck van Spaignien* was dirty and had gradually assumed a natural green patina. An inspection revealed problems with the welding. All the copper elements were thoroughly sandblasted in order to expose and restore the copper.

Le Roi d'Espagne/Den Coninck van Spaignien. Stages in the restoration of the copper cupola. a) Condition of cupola before restoration with dirt and green patina; b) and c) Sandblasting in progress to expose and restore the copper in order to replace damaged parts and repair defective welding, among other things d) Cleaning and polishing using steel wool (© HHU, 2015).

a

Le Roi d'Espagne/Den Coninck van Spaignien. Stages in the restoration of the bronze statue of *La Renommée/De Faam* (or *La Fortune/Het Fortuin*, Paul Du Bois, 1902). a) *La Renommée/De Faam* after restoration; b) Detail of the head of the statue before cleaning; c) Statue being painted (preparatory base layers for gilding); d) Gilded statue (© HHU, 2014-2015).

DIFFERENT ROOFS



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L'Étoile/De Sterre. Zinc cornice undergoing restoration (© HHU, 2008).

Aux Armes de Brabant/De Wapens van Brabant. Restored lead on parts of gable exposed to rainwater runoff (© HHU, 2008).

La Chaloupe d'Or/De Gulden Boot. a) Overview of restored pediment, with the zinc denticles of the entablatures and the lead flashing on projecting elements (© Utopix, M. Ploton, 2018); b) Detail of the zinc denticles and lead flashing during installation; c) Idem. Welding in progress (© HHU, 2008).

THE SCULPTURES

Le Sac/Den Sack. View of heads of five restored statues. Savonnière stone (© HHU, 2015).

The Grand Place has a rich collection of sculpted ornamentation. This element has undergone light restoration using repair mortar. In rare cases, where the details had become unrecognisable or the piece was deemed to be too badly damaged, it was replaced, provided that complete, reliable information (old archives, photographs) was available. Mouldings were then taken of the existing sculptures beforehand.

For example, the cornucopias at the apex of the Euville stone pediment on *L'Âne/Den Ezel* were replaced with a stone of a similar nature due to the poor condition of the pieces. To do this, two large original pieces were dismantled and remodelled using plaster with the help of photos from the City of Brussels Archives. The new stones were then sculpted using the pointing method[1]. These sculpted elements were gilded with gold leaf,[2] before being hoisted with a crane and carefully put back into place.

The same process was used for the five terms (statues composed of human busts that taper into a pillar-like form) on *Le Sac/Den Sack*. Very badly damaged by pollution and ad hoc repairs, they were replaced with Savonnière stone.

NOTES

1. This is a method that copies the form from the original block of stone.
2. Two coats of bonding primer were applied, followed by oil mixtion and the gold leaf (minimum of 23.4 carats for the exterior).

Le Renard/De Vos. Detail of the statue *La Justice/Justitia* (Pierre Comein, 1884). Euville stone. a) Before cleaning. Build up of dirt, peripheral crack on head; b) After cleaning; c) After the restoration of the stone (securing of the cracked head, patching with mortar using photographs of models) (© HHU, 2014-2015).

Le Sac/Den Sack. Stages in creating reproductions of the five statues based on the original models. a) The five covered statues (terms) before their replacement (© HHU, 2016); b) The five sculptures after replacement; c) and d) *In situ* repairs to statues that were too badly damaged (the metal elements had caused cracks and chips in the stone) with a view to making casts of the works; e) and f) Casting with silicone and fibreglass-reinforced polyester resin; g) Transportation of original elements (for documenting) after unmoulding; h) Manufacture of new sculptures (Savonnière stone) using the pointing method and based on the plaster model; i) and j) Work in progress with historical drawings and sculpting tools; k) and l) Mounting of new sculptures (© HHU, 2014-2015).


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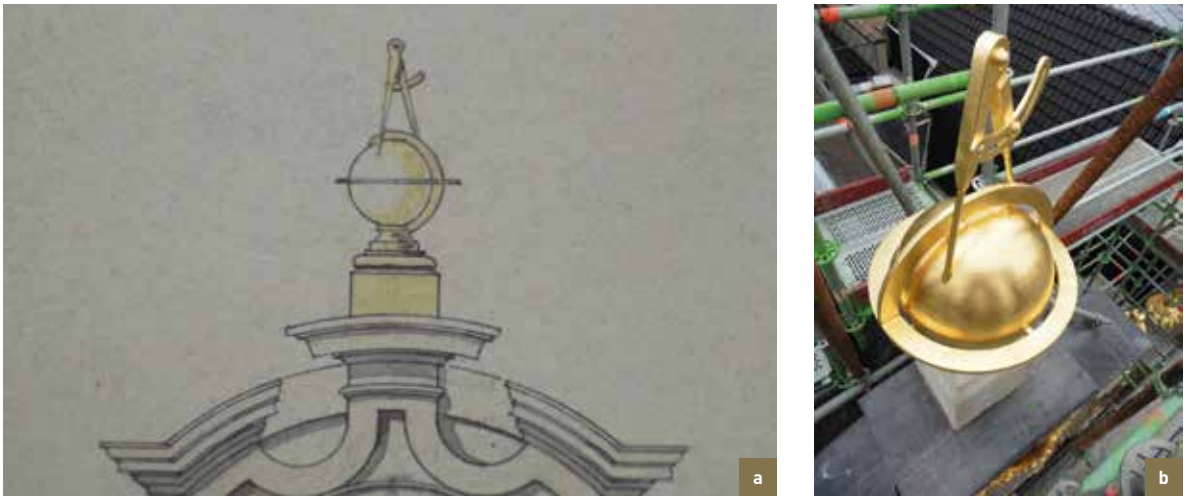
L'Âne/Den Ezel. Stages in the replacement of the cornucopias on the gable. a) Condition of Euville stone cornucopias before removal; b) The badly damaged cornucopias were repaired in the workshop using plaster and based on information from old photos. These pieces served as models for the new elements; c) New element made from Euville stone being sculpted using the pointing method; d) One of the finished elements; e) One of the elements gilded with gold leaf; f) Once finished, the cornucopias from the gable were hoisted with a crane and carefully put back in position (© HHU, 2003-2004).

La Maison des Brasseurs/Het Brouwerhuis. Restoration of the equestrian statue of Charles of Lorraine (copy from 1900 by Jules Lagae based on the existing 1853 version by Jean-Joseph Jacquet). Gold leaf gilded bronze. a) Condition before cleaning; b) *In situ* checking of gilding sample; c) The statue after sandblasting; d) Application of primer; e) Preparatory base layers, mixtion and application of 23.40 carat gold leaf (© HHU, 2008); f) General view of the equestrian statue after restoration (© Utopix, M. Ploton, 2018).

STONE AND METAL ORNAMENTATION

Le Sac/Den Sack. Detail of gable with garlands of fruit, shells, vases and globe crowned by a compass, the entire piece made from gilded zinc (© Utopix, M. Ploton, 2018).

In addition to the sculpted stone statuary, the façades are decorated with a large amount of stone, copper, bronze, zinc or, more rarely, wooden ornamentation. These varied elements - garlands of flowers or fruit, capitals, fluted columns, medallions, date inscriptions, chronograms, etc. - were restored in accordance with the project's general philosophy: minimal interventions, repairs and replacements on a case-by-case basis, where necessary.



Le Sac/Den Sack. Globe. a) Archive drawing that was used for the creation of the new zinc globe, due to the existing globe being too badly damaged (© AVB); b) New gilded globe on the apex of the gable (© HHU, 2014-2015).

Le Sac/Den Sack. Zinc vase. a) Cracked and pockmarked original element; b) Old and new elements (© HHU, 2014-2015).

La Rose/De Roose. a) Partial view of the gable (© Utopix, M. Ploton, 2018); b) Detail of an original zinc vase; c), d) and e) Stages in the creation of a new vase in the workshop; f) The new gilded vases (© HHU, 2014-2015).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La Brouette/Den Cruywagen. Stages in the restoration of copper garlands. a) Condition before restoration (the bunches of grapes were badly corroded, some even having holes); b, c, d and e) Restoration in the workshop (with numbering), sanding with steel wool, cleaning with demineralised water and acetone, filling of holes (epoxy) and application of gilding (© HHU, 2014-2015).

Le Sac/Den Sack. View of the restored gable (© Utopix, M. Ploton, 2018).

La Maison des Brasseurs/Het Brouwerhuis. Column decorated with twisted foliage. a) The metal parts caused the element to crack or chip (cementing on original stone). Damaged state before casting and restoration; b) Core sampling of mortar; c) Moulding with silicone; d) Fibreglass-reinforced polyester resin shell; e) The cast is transported for possible reproduction; f) Finally, the elements were restored *in situ*, painted and gilded (© HHU, 2014-2015).

La Maison des Brasseurs/Het Brouwershuis (© Utopix, M. Ploton, 2018).

GILDING

Le Renard/De Vos. Sculpted medallion after restoration, during application of gold leaf. Savonnière stone (© HHU, 2014-2015).

Gilding was used from the very outset on most of the houses on the Grand Place, especially those belonging to the guilds. Certain more modest façades were first embellished with gold for the 1958 Brussels World's Fair. Based on archives and inspections of the facing, the identified elements were gilded using almost pure gold (23.40 carats), on top of mixtion and preparatory base layers in an orange-yellow colour.

La Maison des Brasseurs/Het Brouwerhuis. Detail of a composite capital, after cleaning and before restoration (© HHU, 2008).

La Chaloupe d'Or/De Gulden Boot. Detail of a capital. a) Checking the gilding chosen; b) On the left: orange-yellow preparatory base layer. On the right: application of gold leaf on mixtion (© HHU, 2012).

La Chaloupe d'Or/De Gulden Boot. Detail of frieze on the pediment during gilding (© HHU, 2012).

La Chaloupe d'Or/ De Gulden Boot. Detail of the chronogram on the tympanum of the pediment. Lettering being painted, preparatory base layer for gilding (© HHU, 2012).

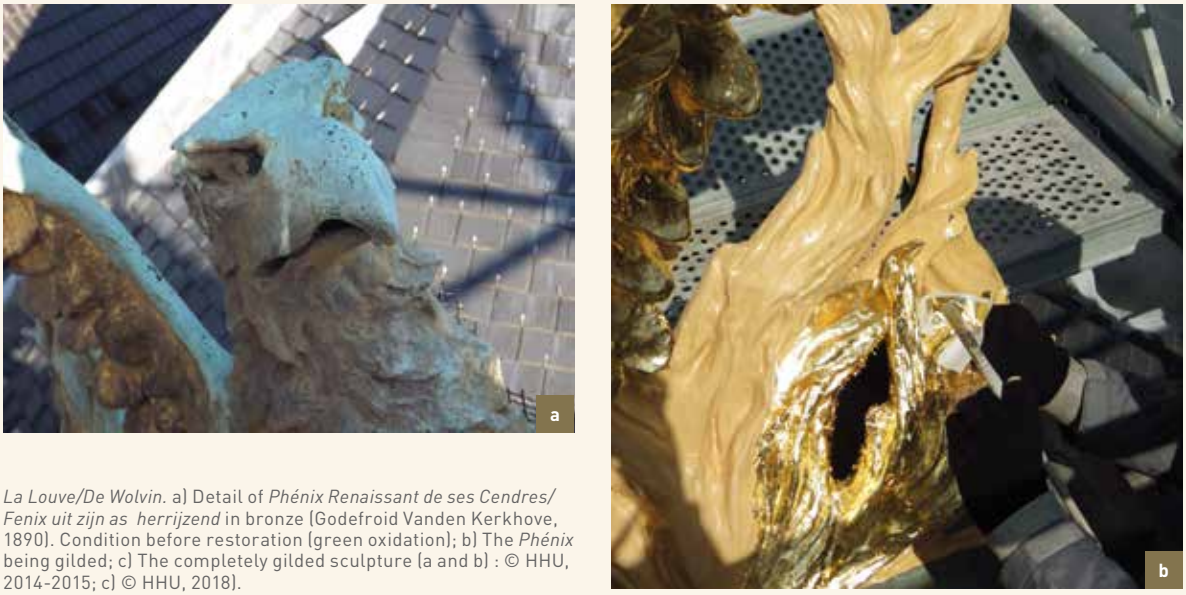
La Maison du Cygne/De Swane. a and b) The mascarons on the balcony during gilding (Venneman, 1903). Euville (© HHU, 2008).

Le Renard/De Vos. Two female terms, holding a golden fleece and a sheaf of wheat, one crowned with a basket of fruit, the other with a sheaf of wheat (Edouard Geirnaert, 1884). a) Old photograph (© AVB, undated); b) After restoration. Euville stone (© Utopix, M. Ploton, 2018).

b

Le Renard/De Vos. Detail of the sun. Hammered red copper decoration. a) Before cleaning; b) The gilded element in the workshop; c) The decoration after restoration (© HHU, 2014-2015).

La Louve/De Wolvin. Detail of decoration on mullion with depiction of the sun. a) After cleaning; b) After application of gold leaf (© HHU, 2014-2015).



La Louve/De Wolvin. a) Detail of *Phénix Renaissant de ses Cendres/ Fenix uit zijn as herrijzend* in bronze (Godefroid Vanden Kerkhove, 1890). Condition before restoration (green oxidation); b) The *Phénix* being gilded; c) The completely gilded sculpture (a and b) : © HHU, 2014-2015; c) © HHU, 2018).

c

POLYCHROMY

Le Cygne/De Swane. Detail of the swan (Albert Aerts, 1901). Peurron stone.
Recent photograph (© Utopix, M. Ploton, 2018).

Some of the sculpted elements were polychrome. An examination of the archives, supplemented with sampling, helped to determine the nature of the original polychromy. This was restored, after testing and approval by the Supervisory Committee.

Restoration of the polychromy of the *La Louve/De Wolvin* sign (© HHU, 2015).

La Louve/De Wolvin. Detail of gold motif metopes in the frieze alluding to archers. a) Test restoration on the right-hand section; b) Final result (© HHU, 2014-2015).

La Brouette/Den Cruywagen. Detail of medallions with date inscription. a) Medallion on the left before restoration; b) Medallion on the right after restoration (repairs to stones, colouring, gilding) (© HHU, 2014-2015).

Le Cornet/Den Horen. Stages in the restoration of the polychrome coat of arms based on an original document. a) Before cleaning; b) After cleaning; c) Archive document indicating the precise pigments in the coat of arms; d) Restoration and repair of polychromy in progress; e) The piece when almost completed. Gilded areas and those in the process of being gilded, as well as sections covered with silver leaf, in accordance with the instructions in the original documents, can be seen beside the polychrome elements (© AVB and HHU, 2014-2015).

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RENDERS AND PROTECTIVE COATINGS ON THE FAÇADES

All the gables crowning houses 21 to 25 (© F. Glorieus).

We know from archive documents which façades were completely stripped or rendered during the 19th century restoration campaign. Some, made from Balegem stone, were rendered, while the newly built sections were left exposed.

The façades of *La Chaloupe d'Or/De Gulden Boot* and *Le Paon/Den Pauw* were replastered with mineral mortar. Others, like *Le Mont Thabor/Den Bergh Thabor* and *La Rose/De Roose*, were only partially re-plastered.

The stone surfaces of both renewed and preserved or reinforced sections were waterproofed by applying a methylalkoxy-siloxane-based water-repellent solution. The product enables the water vapour permeability of the facing to be maintained after application.

La Chaloupe d'Or/De Gulden Boot. a and b) Coating of colossal pilaster (© HHU, 2012).

La Chaloupe d'Or/De Gulden Boot. Detail of a painted and gilded mascaron (© Utopix, M. Ploton, 2018).

Coating of certain façades. a) *La Rose/De Roose*. Test coating; b) *Le Petit Renard et le Chêne/Het Vosken en Den Eycke*. Work in progress; c) *Le Petit Renard et le Chêne/Het Vosken en Den Eycke*. Removal of loose sections of render (© HHU, 2008 and 2015).

La Rose/De Roose and *Le Mont Thabor/Den Bergh Thabor* (© Utopix, M. Ploton, 2018).

CRAFTSPEOPLE

The quality of the restoration work on the façades of the Grand Place would not have been possible without the expertise of countless specialist craftspeople and workers: bricklayers, stonemasons, carpenters and cabinetmakers, paint and gilding restorers, zinc workers, roofers, sculptors, coppersmiths, etc. (pictures : © HHU, 2001 to 2015).