Restoring and Repairing the Staircase in Jugendstilsenteret in Ålesund

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Une politique éclairée en matière de patrimoine culturel vise à présenter ce patrimoine comme une source unique de savoir sur les sociétés du passé et comme un support de nouvelles expériences et de nouvelles utilisations. Le Centre national et Musée d’Art nouveau d’Ålesund, installé dans un bâtiment Art nouveau classé, est un exemple de contribution exceptionnelle à cette politique. Soucieux d’exposer et de présenter notre héritage au public comme une source unique de savoir, nous avons atteint un nombre record de 40 000 visiteurs en 2018. Comme son adaptation aux conditions d’utilisation modernes est un défi complexe, la réutilisation et la conservation du patrimoine culturel exigent un engagement, des ressources et des connaissances considérables. L’article présente quelques projets de restauration qui ont cherché à réparer l’escalier en utilisant différentes méthodes et techniques. Il présente non seulement l’étude et la restauration des couleurs et des matériaux d’origine, mais aussi les différents défis liés à la stabilité structurelle de l’escalier comme condition préalable fondamentale de l’utilisation et de l’expérience futures. Une méthode empirique a été utilisée pour la recherche de cette étude de cas, tandis que les indicateurs de stabilité de l’escalier ont été déterminés par une analyse physique et à l’aide de méthodes d’observation et de mesure. Des travaux de recherche et de restauration antérieurs ont été présentés en utilisant une méthode descriptive et en recueillant les données des archives du Jugendstilsenteret.

1 Documentation numérique et analogue d’après les projets de restauration et de réhabilitation menés dans l’escalier en 2003 et 2012. Description du projet de réhabilitation de l’escalier à partir de 2019, rapports d’inspection et publications.
The Norwegian National Art Nouveau Centre (Jugendstilsenteret) and museum is housed in a representative, listed Art Nouveau building in Ålesund. The first owner of the building was a pharmacist called Jørge Anton Owre, and the building’s original function was both as a pharmacy and a family home. This “Svaneapotek” (Swan Pharmacy in Norwegian) was constructed in 1907, after the catastrophic town fire in January 1904, in which the first pharmacy, like many other wooden houses, was burned to the ground [FIG. 1].

Today the building is one of the foremost examples of the “jugendstil” in Norway. The preservation includes both exterior and interior, as well as original decor, lighting fixtures and other details, all designed by one of the best Norwegian architects at the time, Hagbart Schytte-Berg. The iconography of the building was inspired by Romanesque architecture, Norwegian Viking art and Stave church ornaments. The hall and dining room on the first floor are decorated by the beautiful Japanese (kinkarakawakami) wallpapers and details inspired by Celtic patterns. Additionally, extensive use of masks (so-called “grotesques”, both exterior and interior) blends all this into a whole that is at once international and traditional, typical and very special.

This historic building has been adapted several times to different functions, while retaining its crucial architectural and aesthetic features. In 1981 it was sold to a local bank, leading to an attempt to modernize the Old Pharmacy interior. Unfortunately, at that time, very few of the original materials and details were considered for conservation. When the cultural property in Ålesund was officially given a new function as the Art Nouveau Centre in 2003, it was necessary to restore a huge part of the building’s interiors to their original appearance. A major restoration project was carried out on the ground and first floors, but also on a gorgeous Art Nouveau wooden staircase, one of the most beautiful and most conservation-worthy parts of the building [FIG. 2].
The winding staircase begins on the ground floor and extends upwards to the first and second floors. It is unique in form and has been executed in a combination of oak, pine, and mahogany. Oak and ash were highly useful materials for stairs at the time of its original construction, while premium hardwood was often used to make furniture, floors, or minor building components. Such wood was associated with high quality and luxury. The treads are made of oak. The risers are of pine and are profiled, and the wall string and the 60-mm-thick open string are also of pine. Mahogany has been used on the banister handrail and the main newel post which is additionally adorned with carved owls in all four corners, as well as a sea monster that recurs on the entrance doors [FIG. 3].

By its splendour and beauty this piece confirms the claim that Art Nouveau staircases were made to impress visitors as soon as they came in, by displaying the residents’ affluence.2

The restoration and repair work on the staircase was carried out over many years. The staircase had previously been upgraded when required, but today we only know of the repairs that were carried out in the 1950s and 1980s.

The project from 2002–03 was executed in accordance with antiquarian methods, yielding much better results for the other rooms on the ground and first floor than for the stairway itself. However, different surfaces of the latter were surveyed, and the most important findings showed that ceilings and walls have been subject to three or four treatments over time. The colours that were used go from white, light-blue whitewash via green to an ivory colour. Several layers were discovered behind the 90-cm-high wooden panels that were placed over the lower part of the wall in the 1980s. Originally there was a 185-cm-high wainscoting in the ground floor, but there are no traces that could show which materials were originally used or how it looked.

2 It is known that the pharmacist Øwre was among the most important and richest people in town.
FIG. 3  Art Nouveau Centre in Ålesund, Norway. The staircase on the ground floor. Unknown author, Jugendstilsenteret Ålesund.
FIG. 4  Art Nouveau Centre in Ålesund, Norway. Dining room, unique wood carving details on the sliding door © Kristin Støylen 2007.
Fig. 5 Art Nouveau Centre in Ålesund, Norway. Stained glass in hall presenting the landscape © Kristin Støylen 2007.
Art Nouveau Centre in Ålesund, Norway. Detail of the wood carving in the former pharmacy © Kristin Støylen 2007.
The most demanding restoration and preservation work in 2002 was performed in the former pharmacy and pharmacist’s office. The original ceiling, floors and walls were completely restored. Additionally, a major restoration was carried out on the fantastic Japanese wallpaper in the hallway and the dining room. All the walls were given a colour scheme in line with original colours, and all wooden surfaces were restored. The light fittings were adapted to the style of the room, while many other details were restored, such as the Celtic-inspired patterns and the various masks, the so-called grotesques.

The biggest challenge concerning the staircase, one that we are again facing today, has been its stability. The restoration work undertaken in 2012–13 was carried out in two phases. The main issue in the first phase was to counter the effects of the stairs sinking. In order to secure the weakened structure and prevent the strings from gliding apart, two restraining steel rods were fastened on the underside of the staircase. With a profile of 15 mm and painted an appropriate colour taken from the staircase, the stays are almost invisible. The stays are affixed through the outer string and fastened with an adjustable bolt on the inside of the wall of the lavatory on the other side. This method, being regarded as a traditional solution, was recommended by the Norwegian Directorate for Cultural Heritage FIG. 7.

Additionally, cracked treads were glued together with epoxy, while some parts were pressed together with invisible bolts fastened horizontally. The surfaces of the treads were retouched, polished, and lacquered. The undersides of the strings were cleaned and retouched with traditional shell polish methods and then waxed.

The above-mentioned wooden panels from the 1980s were not original, and so had to be dismantled all the way up to the second floor. Interestingly, the back panels that were found indicated that walls originally were grained twice: 2 first with a light graining glaze that mimicked pine, and then with a graining glaze in a darker imitation of oak. At the same time, the upper surface of the wall was painted green. Between these two surfaces a dark décor line, around 6 mm wide, was also discovered. Restoration of the organic graining is done by using the finest cold-pressed linseed oil, supplemented with four different pigments: burnt umber, burnt sienna, yellow ochre, and alizarin. This diffusion-open paint type ensures that the wall is breathable.
The wainscoting on the first floor above the landing was also restored and made in simple forms and shapes, corresponding to the window frames and to the wainscoting in the dining room.

An original door that had subsequently been sealed on the second floor was retouched by graining in shades of mahogany. Other surfaces and details such as windows, lamps and door handles were repaired or replaced by historically correct copies.

The second phase of the project was carried out in autumn 2012, intending to open a wall under the staircase on the ground floor and to recreate the stained-glass window behind the room at its full size. In the so-called “secret room” under the stairs, original floor tiles were found along with an original plaster wall with coconut fibres, both from 1907. The reddish-brown terracotta tiles bore an organic pattern, the original Art Nouveau creation. Exact copies of the tiles were later made in Germany and laid in the ground-floor hallway.

Not long after the first repair, in 2016 it was discovered that the stability issue had not in fact been solved. After a few inspections it was clear that the main problem of sinking stairs was back, and the consequences have been cracks in the second-floor landing about 3 mm wide, treads and landing that have sunk, and steps which are gliding out from the open string. The measurements on the treads showed a significant fall, reaching a nadir of 56 mm at the thirty-fifth step. The staircase is still pretty much stable between the ground floor and the first floor, while the major shift occurs between the first and second floors.

The greatest concern stems from the very method that is meant to help secure this challenging structure. First of all, the open string must be jacked up, pressed towards the wall, and locked in a straighter position. The biggest challenge is that the structure must be pressed up at various points at the same time. In order to do this, a stable wooden tower must be built from the ground floor all the way up to the landing on the second floor. There is a risk of damaging parts of the stairs and walls, which might involve renewed restoration work or even production of new mouldings towards the walls.

The next step in this project is the installation of two steel brackets: one on the uppermost landing (on the second floor) and the other behind the open string between the second and first floors.

The steel bracket under the landing should be affixed to the wall and under the string. The bracket should be approximately 10 mm wide, while the height will probably vary from around 100 mm towards the wall to around 40 mm at the end of the landing. The second steel bracket connects to the first one beneath the landing and is further affixed to the back of the open string. This bracket should be approximately 6 mm wide and will ensure that the treads stay in the string. All the brackets shall be painted the same colour as that behind the staircase, so that they will be largely invisible. In any case, it is entirely necessary to press the stairs as much as possible into their original position before the steel brackets are affixed.

Theoretically this method could work well enough, but no one knows how much the staircase may revert to the previous position, and this can only be determined during the process itself. We hope that this solution will enable us to protect the staircase in all its authenticity and beauty, and also enable it to withstand the huge number of visitors who discover and enjoy the building’s architecture and art each year.

There are indications that this room was used to produce pills for the pharmacy. The pill-making machine created a good deal of dust, so that it had to be placed in a room of its own. The room had been closed for more than fifty years.