

## *Crafts, professions of excellence*

### STAIRS BUILDING

**Related professional : Alex Fassin & Marc Escalier**

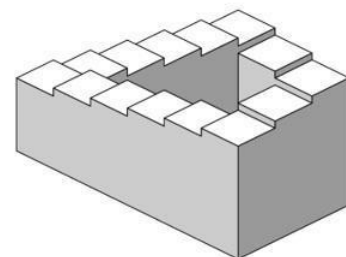
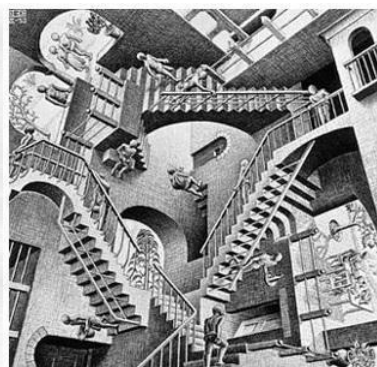
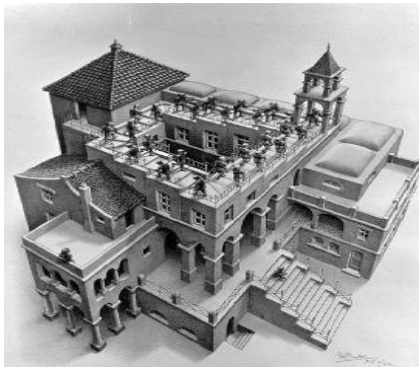
**Workshop : Marc Escaliers de Style by Alex sprl**



Although for most people a staircase is a simple practical architectural element allowing access between floors of buildings and gardens, since ever, the style and the materials have been carefully chosen according to architectural trends, to the specific function they had to fulfil and to the social position of who was supposed to use them. For centuries, wider and comfortable stairs were built for wealthy people with noble materials while lower classes and servants had to reach upper floors through steep and narrow staircases. The well-known double helix staircase of Château Chambord in the Loire Valley, France, which is believed to be designed by Leonardo Da Vinci was purposely crafted to separate the passage between the royal family, guests, and servants.

It is doubtless that ever since, stairs are the mirror of an architect's resourcefulness and ingeniousness and of technological development. Clay, stone, wood, wrought iron have progressively been joined by glass, concrete, steel and new materials which are challenging the laws of gravity and the constraints of three-dimensional space.

Mathematical calculations and the knowledge of the material gave birth to new types of stairs: straight, curved, twisted, dog-leg, spiral stairs, cantilever stairs and so many other frames... where curves meet with straight lines into harmonious shapes. In each part of the stair, collaboration between designers and makers is crucial since none could work without the other's knowledge and expertise. In each epoch, besides their practical function, stairs also enhance the desire to manifest power (castles and palaces), spiritual elevation (churches) and intellectual excellence.



In fact stairs also inspired mathematicians, philosophers, and artists. How to forget the never-ending “Penrose staircase” by Lionel and Roger Penrose inspired by “relativity” and reproduced by Escher in his famous art pieces (*see above picture*).

It is not pretentious to say that staircases are part of our cultural heritage, whether it is architectural heritage or artistic, but, above all intangible heritage. Only people’s intelligence and creativity can together bring such perfection.

But no intellectual and creative excellence could have been translated into reality without the skills and the knowhow of craftspeople. Stone cutters, carpenters, blacksmiths, and masons are the ones who made ideas and design become real.

For more information : **The History of Stairs: From Fascinating Architecture to access barriers** : <https://blog.stannah-stairlifts.com/society/history-of-stairs/>

## What are the skills and expertise of professionals in this profession?

Stair builders can be associated with the big family of carpenters but since stairs are not always built in wood, we can say they have their own category. Stairs or staircase specialists need years of practice before they can create their own workshop.

Nowadays most of the stairs are made industrially by big firms or by small workshops with digital assistance for calculations. Only few professionals still work in the traditional way, without computer assistance. Whatever the support they get, stair makers need to acquire deep knowledge in several fields and among them. The first is the capacity to think in three dimensions. A staircase has not only a vertical development but also a horizontal one and occupies a space which must be fitting harmoniously with the space which is surrounding it.

A staircase is made of many parts which also have to dialogue between each other: central column, walking line, quarter landing, soffit, balustrade, railing, handrail, stringer, riser and tread line, to mention some of them, are all parts which must be calculated to create a balanced staircase. All parts may be enriched by the contribution of other professionals participating in some of the staircase’s elements such as sculptors, engravers, blacksmiths...

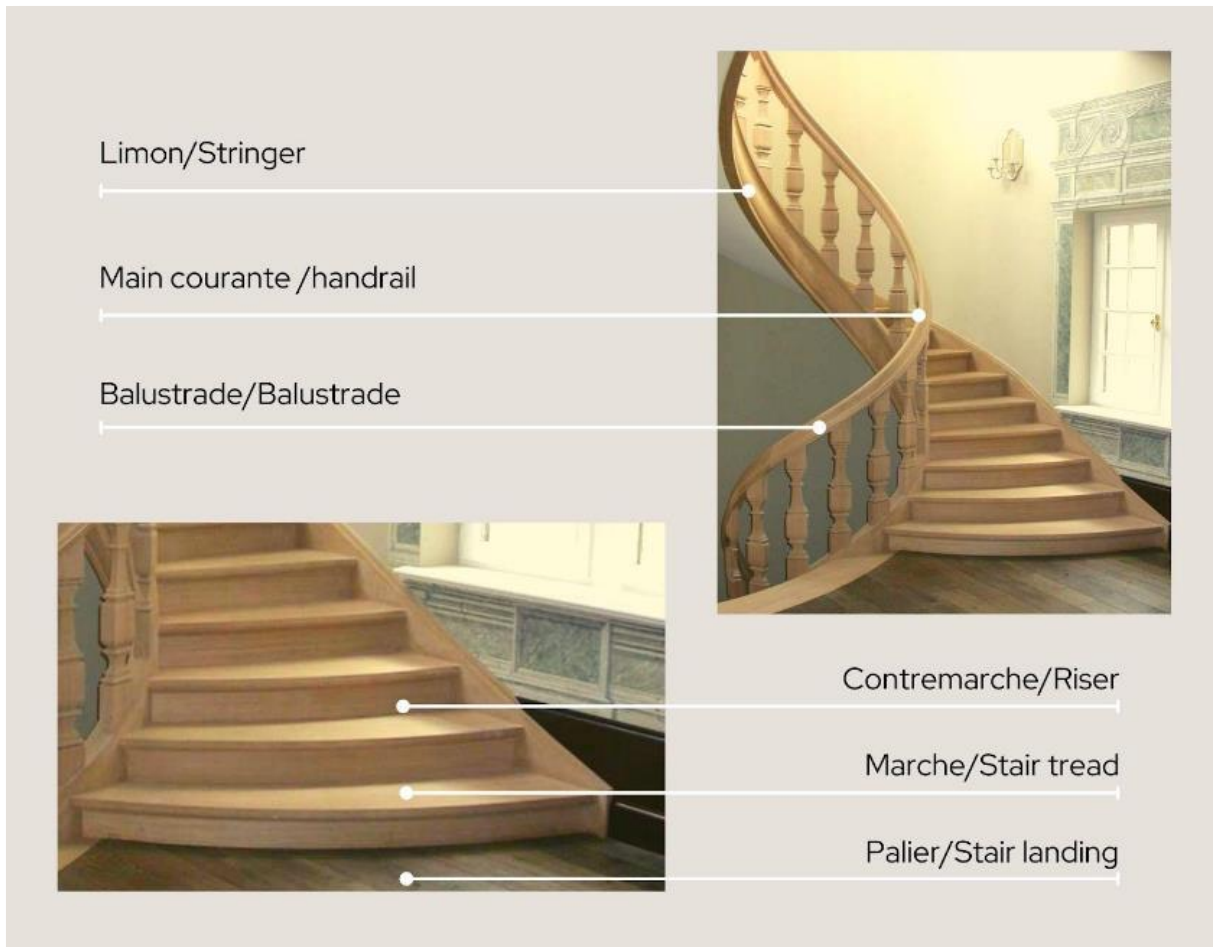
Design skills are also required to put together all these elements with aesthetic coherence.

Because it is part of an architecture, a staircase can be made in the same style or can be designed to break the surrounding architecture with innovative and contemporary shapes. Therefore, a good knowledge of architectural styles and epochs is required to fulfil the needs of the client.

Staircase professionals must also develop strong knowledge on the physical properties of each material such as stone, several types of woods, metals and nowadays of even more materials which allow to create very contemporary stairs.

Starting a staircase from scratch requires a high capacity to dialogue with the architect or the owner of the building and to answer their needs with valid proposals.

## Main parts of a staircase



## Some materials used for stairs.

For centuries staircases have been built with local materials, whether they were stone, clay, wood or metals. Using marble imported from other countries like Carrara, was a sign of wealthiness and power but this only concerned a few privileged clients.

In the last century, materials have been crossing oceans and borders on a regular base which is not without impact on our environment. Not to forget the consequences of wild deforestation on climate. A more accurate attention for environmental and sustainability issues is increasing and more and more craftspeople, including staircase makers, are committed at reducing their impact on environment by privileging FSC (Forest Stewardship Council : <https://be.fsc.org/be-nl> (Belgium) - <https://fsc.org/en> (international) woods or local materials.

A very sustainable technique to build a staircase is the one known as "Catalan vault" or "partitioned vault" which is made of clay tiles generally produced locally. This technique has Arabic origins but had its moment of splendour at the end of the 19th century with the modernist movement. Illustrious architects such as Antoni Gaudí, Domènech i Montaner or the Valencian architect Rafael Guastavino, who brought this knowledge to the United States, used it extensively in their creations as the system made it possible to cover large spaces such as textile factories, warehouses, cellars, etc., without having to carry out major structural effects.

## Some famous staircases

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## Opéra Garnier (Paris)



(source of the picture: <https://www.universite-paris-saclay.fr/vie-de-campus/art-culture-science-et-societe/arts-et-culture/sorties-culturelles>)

"Speaks to the eyes, ears, hearts and passions". This quote was said by Charles Garnier, the architect who conceived Opéra Garnier (Paris). He designed it to look like a total work of art at the demand of Napoleon III. At the bottom of these stairs, we can encounter two statues of women holding and offering bouquets of light to visitors as a greeting gesture. If we look up at the ceiling, we would see painted allegories of music.

(source of the description: <https://www.lonelyplanet.fr/article/france-10-escaliers-monter-tout-prix>)

Spiral staircase of the Louvre 's Pyramid (Paris)



(Source of the picture: <https://nck.ca/realisations/pyramide-du-grand-louvre-et-escalier-helicoidal-monumental-du-musee-du-louvre/>)

These famous staircase can be found inside the Louvre museum, just below the Pyramide. Leoh Ming Pei designed this piece of art excluding the central pillar to give the staircase an aerial effect. It has been inaugurated in 1989. Today, it is used by 7 million visitors every year.

(Source of the description: <https://lescaliercontemporain.fr/blog/les-escaliers-monumentaux/>)

## What markets are related to this profession?

In purely architectural terms, staircases are among the strongest transition elements connecting two spaces in home interiors or even interior spaces to exterior ones as well. Experts suggest that staircases typically are the perfect reflection of the society they are part of because they highlight the state of architecture and arts. Nowadays, staircases have become a significant heritage landmark, sometimes even more famous than the building they are related to due to their unique designs. Following what has been previously explained, cultural heritage depends especially on the staircase manufacturing industry. It is essential to highlight that each historic building has a unique story that needs to be protected at all costs. In fact, staircase manufacturers are the only professionals who are equipped to guarantee the preservation and the durability of national patrimony.

The Staircase manufacturing sector is strongly related to the architectural and engineering sector but also to the one of cultural heritage, especially when focused at preserving ancient public, private and religious buildings.

## Where to learn the profession in Belgium

Since stair making is part of carpentry, general skills can be learned in schools such as :

IFAPME : <https://www.ifapme.be/formations/coordination-et-encadrement/charpentier>

EFP BRUSSELS : <https://www.efp.be/formations/chef-d-entreprise/efp-2/charpentier.html>

To learn more specifically the stairs making, training in a specialized workshop is the best solution :

"Marc Escaliers de style by Alex" is offering long term trainings.

<https://marcescaliers.be/>

This Company was created 30 years ago by Marc Van Obbergen and today he welcomes young girls and boys to train in his workshop in order to ensure the continuity of staircase manufacturing craftsmanship. You may be the next business manager like Alex Fassin, a former intern.

**Complementary skills can be earned in other workshops and schools :**

### **Ferronnerie Yasar**

<https://www.atelieryasar.be/>

A blacksmith company that makes ironwork and metal structures. The website displays available job vacancies regularly.

### **Ecole de Maréchalerie**

<http://ecoledemarechalerie.be/>

[http://ecoledemarechalerie.be/?page\\_id=246](http://ecoledemarechalerie.be/?page_id=246)

This blacksmith school provides education with theoretical and practical training.

### **Woodwize**

<https://www.woodwize.be/fr/>

Another school that teaches woodwork. There are different learning possibilities, notably interior carpentry, giving you the freedom to develop your own personal touch.