



POLITECNICO
DI TORINO

Honors thesis

COURSE OF
ARCHITECTURE CONSTRUCTION CITY

Abstract

**BIM languages: the digitalisation of the processes
between methods and norms. The case study of the
Lefay Resort and SPA Dolomiti**

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by

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Work experience

The thesis has been made in form of “tesi in azienda”, that means that I’ve been an intern in an architecture firm, in this case the DVA-Bim Factory office in Brescia (Italy) that is working on BIM since 6 years.

During the 5 months I’ve spent in the Office, I’ve been working on team who was developing the project of a hotel & SPA on the Dolomites, in the Trentino Region. In this particular project, BIM (Building Information Modelling) method has been introduced after the design phase, whit the worksite already opened. It has been introduced by the Construction firm who wanted to implement and improve the construction process with the aim to raise the level of coordination among the companies involved in the project.

Introduction and goals

The main goal was to understand on the daily work the possibilities of BIM, through the norms on one side and to the work practice on the other.

Thesis’ structure and contents

The thesis is divided into two parts, the first mostly theoretical and the second more referred to the experience of the Office.

The first part is around the topic of the digitalization of construction, of the product and the process. The contents are described through the analysis of the current situation and the future possibilities.

One of the goal of this first part was to trying to consider the most of the norms about BIM, that still todays are made.

The second part is structured around the word “language”, because from the experience that has been done, emerged the importance of the right communication in terms of different kind of information exchange. Communication, a term closely related to “Language” has been translated into communication among people, among machines and between people and machines.

The entire work ends with an hypothesis that reinvent the BIM process applied to the project using the main Italian norm about BIM, the “Decreto Ministeriale 560/2017”, that introduce the BIM method in the Italian public works starting from the 01 of January 2019.

Conclusion

The analysis compared the process applied to the project of the DVA Studio with the hypothesis.

It has emerged that even if Italy is developing a proper technical apparatus of norms, nowadays in the work praxis, offices prefer to take into consideration many different norms, made by an heterogeneous ensemble of sources. They actually prefer put together norms and guidelines coming from different countries, making a sort of a collage on the way it suits them.

If on one hand this collage could work correctly, on the other the risk of incoherence is too high.