Abandoned Art Nouveau in Italy

Document the Built Heritage before it is Lost.

Valentina FANTINI

Università degli studi di Firenze

Abstract: This research paper is an analysis of abandoned Liberty style buildings in Italy, caused by evolution of taste and preferences of Architectural style [of liberty style buildings in Italy which have been abandoned due to the evolution of taste and architectural style preferences]. The Liberty style was popular during the period from the end of the 19th century to the first decades of the 20th century. The Liberty style was characterized by a marked linear style and elegant decoration; it quickly became the main style of the growing bourgeoisie. This research examines the reasons why these particular buildings didn't acquire the "charm of ruin" after their closure and, as such, they often suffer from complete abandonment without meaningful chances of recovering. Buildings like the "Terme del Corallo" (Livorno), the glasshouses (Montecatini) or the "Villa Zanelli" (Savona) are examples of this condition. This analysis of Heritage at risk will be developed using the photogrammetric survey methodology, using both a traditional 2D approach and the S.F.M. (structure from motion solutions. The objective is to gather data using fast and discrete techniques. Many of these buildings have been left to themselves and are often protected by a public administration from the intervention of the public interest and the creation of an archive of these objects. The observed buildings will be chosen from a vast territory and their survey would be a possible reference for a conservative intervention or at least a documentation of something lost. Each single example will be considered inside its urban context taking into account the main changes happened in time. The project will use the research as a process for a more sensitive design approach, hoping to encourage a retrieve of this Built Heritage. All the data are prepared to be integrated in specific social networks like www.impossibleliving.com for their maximum dissemination.

Keywords: building heritage, abandoned, art nouveau,

Abandoned Art nouveau in Italy, three case studies

The digital survey

The AGIsoft Photoscan is one of the most recent and well working software for the SFM digital survey. It has meaningful features like the possibility to reference the model on the global coordinate system, to set the dimension of the resulting model, to manage even very complex photographic database so it is currently recognized as the most usable solution to use as a key tool in this research project. Because it is a very powerful tool but also commercial software, this research should give the opportunity to test and verify the possibility to use other software with similar features but with freeware licensing (like Autodesk 123D Catch and Visual SFM). An accurate evaluation about the possibilities, the advantages and disadvantages in the

software structure, results, licensing systems, will be evaluated to identify the best working solution to support a well working tool to document and create accurate 3D digital models out of “simple” photography. It is well known that the main needs to produce a good Photo scanning are: a stable tripod and a high definition digital camera. Photos should have a total depth of field; the image should be generated from a lens with an almost “hyperfocal” setting, with all the elements of interest clear and readable. It's important to photograph all the parts of the object; the methods is to divide the object with imaginary section planes, parallel to the surface to be photo scanned . The photographer should move along the imaginary line on the floor (projection of the section plane) with a regular interval and with a distance between each position proportionated to the field of view. In each shooting station it is a good idea to take photos from the bottom to the top, paying a certain attention to the floor, while this part should be quite hard to obtain in the final model if not correctly documented. It's necessary to take photos of all interesting particulars to obtain a detailed Photoscan result. In a photogrammetric campaign it is possible to use multiple cameras, even with very different characteristics like the kind of lens and the sensor resolution. For example it is possible to use Canon Eos 550D 18 megapixels SLR with a basic 18-55mm Canon zoom lens together with an Olympus E500 8 megapixels SLR with a superwide angle 9-18mm Zuiko zoom. In this way more than one photographers can operate on the same subject using his tools and reducing the overall time needed to cover the whole photoscanned area.

To get a good quality in the Photoscan final model it is worth taking more photos than needed which might sound a little unnecessary, but when it is time to create the model some more shots will be very useful, a little difference in the point of view, a minimal difference in the quality of similar shots may produce a quite different result. The further process is the loading of all the images in the software and the start the workflow to create the final digital 3D model of the surveyed space. This phase can be quite long, because using the software is a time consuming process, starting from a first alignment, to the creation of the geometry to the completion of the process with the creation of the overall texture to be mapped on the mesh surface. The result will be a complete 3D digital model created from the 2D information of the pictures; the final result is a three-dimensional polygonal surface with a texture applied on it. The texture is created by an union of the photos loaded in the software to start the whole operation. Because of the possibility to export the model to the most common 3D digital models it is quite easy to bring it in any CAD and rendering environment and develop specific drawings and representations. In this research it is possible to imagine that the main exchange formats to be used will be the PDF3D format (for quick view, checking and presentation) and the OBJ format with all the texturing converted into JPG images. The post processing of all the photogrammetrically generated 3D models will be planned in order to use this survey to recompose and develop a coherent drawings of the main plan, of some meaningful sections and of all the main fronts of the building. All the information obtained by photo scanning, will become a part of the archives. Some minor direct measurement taken when possible and safe, will be integrated to the photoscan model to complete the task defining a model in its correct measurement unit. A simple modeling process, based on the mesh coming from Photoscan will be applied to produce the first draft result for developing all the final drawings: slicing the polygonal mesh into orthogonal parts all the base to produce plans and sections will be quickly obtained.

Bringing high resolution rendering images in Autodesk Autocad it will become quite easy to use them as a base to add and integrate the direct measurement. If a drawing cannot provide enough detail a direct reading of the photos taken on each single interesting element will be an important step to add details and complete the drawing with the needed quality. For convenience some photos of details will be used without recurring to the photoscan process, in this way they will be filtered to compensate for their perspective and proportioned before their use inside the CAD environment. Little by little, but in a very short time if compared to any other low cost digital survey methods a detailed graphical documentation of each monument will be completed with a complete plan, main sections and main fronts. A first useful set of drawings after years of looking at these monuments falling down piece by piece.

First Case Study "Terme del Corallo" Livorno

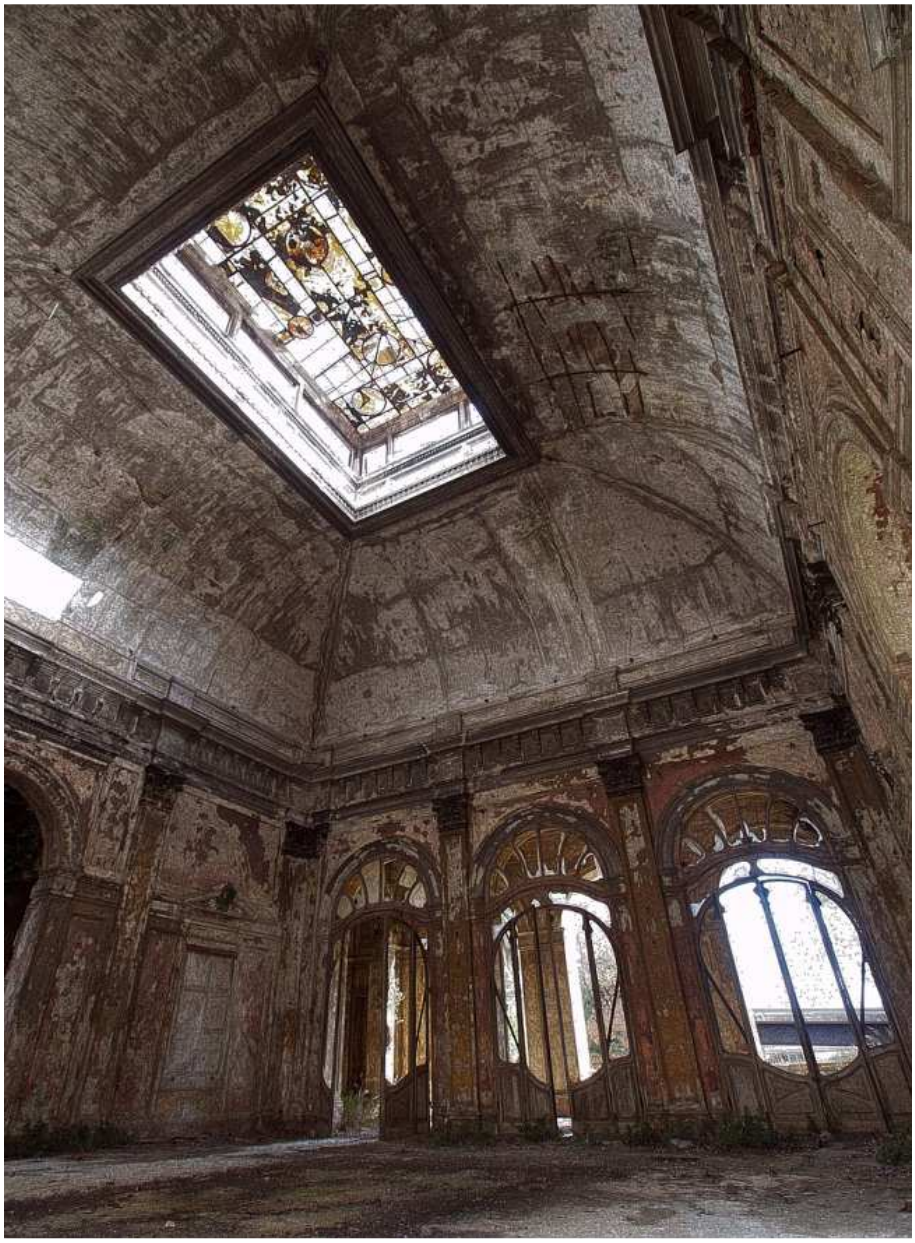

Fig. 1 – Terme Del Corallo-main hall, Livorno(Copyright: Valentina Fantini)

The first case study was the “Terme del Corallo” in Livorno, this building has a complex story that started in the 1854, in a period of dry spell, when the owner of the plot near “Viale degli Acquedotti” decided to excavate and found water that was drinkable and had purging qualities. In the 1865 along the “Viale degli Acquedotti” the owners of another area, excavated the land and found a different source of water with the same power. During the period from the 1854 to the 1893, six different kinds of water were found, the curative property of these waters became famous; the hospitals near Livorno started using the waters for medical treatment. The popularity of the waters was the beginning for a new company, created by a group of persons with a robust fortune behind them, the name was “Società delle Acque della Salute” (literally: “The Health Water Company”). The company decided to protect the water in the ground by building an underground system of walls; in 1903 they decided to entrust Angiolo Badaloni with the task of realizing the new building named “Stabilimento delle Acque della Salute” (literally: “the Health Water Establishment”).The inauguration of the building was a grand event, people from far away went to visit the Art Noveau building. Livorno at that time was decorated for the event and its citizens could appreciate the baths.

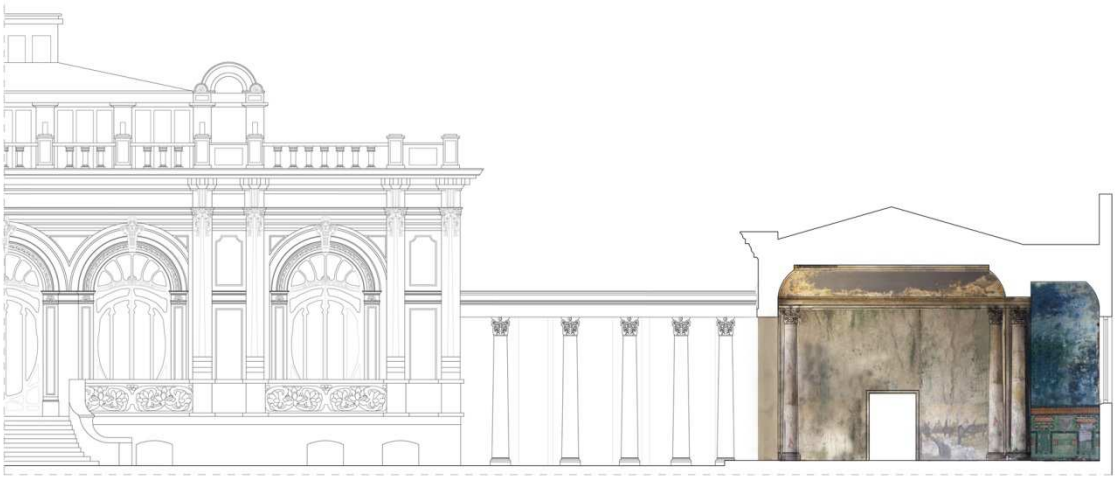

Fig. 2 – Section of Sala della Mescita, Livorno (Copyright: Valentina Fantini)

The complex became famous, people from far away visited the baths. The building worked until 1936, the Second World War was one of the main causes of the closure of the complex. From that period several owners tried changing the main function of the building, the last use of the building was as a factory; but in 1967 the complex was definitively closed and started its period of total abandonment. The building has a “c” shape, it is composed of a central building and two lateral ones. Inside the main building there is a dome that was built with reinforced concrete. The two lateral buildings have the same main front facing onto a central square, a colonnade connects the three parts.

Today the building is highly damaged and abandoned; the public administration couldn't recover any part of the building; it' s possible to access only a small part. The recent opening of the park of the baths seems more orientated to favourise the qualities of the surrounding new buildings than to plan a serious intervention for the baths and bring people close to a tumbledown building.

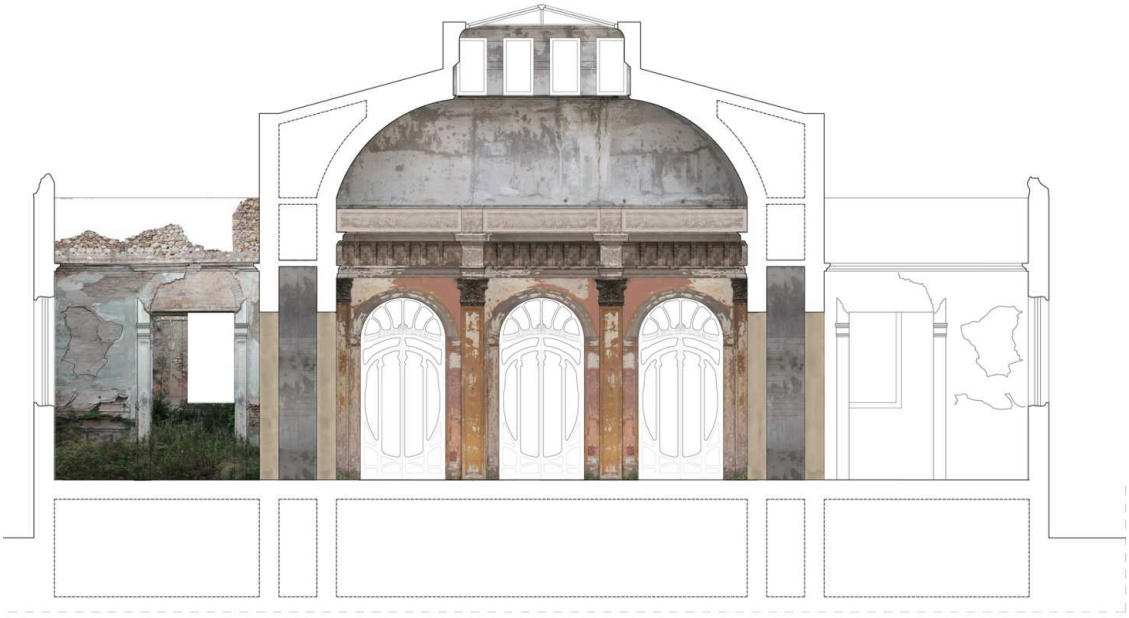

Fig. 3 – Trasversal section of main building, Terme Del Corallo, Livorno(Copyright: Valentina Fantini)

Fig. 4 – Detail of window, Terme del Corallo, Livorno (Copyright: Valentina Fantini)

I have collected all materials about the building and its history, then with the help of a homeless who lived in the right side (now moved out) I've visited all the complex and took direct measures and used the photogrammetric method to make the survey.

Fig. 5 – Longitudinal section of the main hall, Terme del Corallo, Livorno (Copyright: Valentina Fantini)

Second Case Study "Villa Zanelli" Savona

This second example is a sort of "first step" after the "Terme del Corallo" and a possible starting point for the whole research. Villa Zanelli is one of the most important Art Nouveau buildings in Liguria. It is located in Savona, along the beach of the district "Legino" number 71. Today the house is abandoned. This mansion isn't too decorative but it presents the "Decò" style that was still developing when the house was built.
The owner Nicolò Zanelli in 1907 decided to entrust the architect Gottardo Gussoni with the task to design the mansion. Gottardo Gussoni was born in Turin in 1869 and died in 1951, he was the pupil of Pietro Fenoglio (Turin 1865-1927) who is one of the most famous italian Art Nouveau architects.

This villa shows the talent of the architect, which improved his capability in natural motif like Victor Horta in Belgium; the villa is surely his best work.
Zanelli's family had the villa until 1933, when they sold it to the public administration of Milan. The villa became a campsite until 1961. During the Second World War it was used as a hospital. In the 1967 the villa was branch of the U.S.L (Unità Sanitaria Locale, a type of government organization) until 1998 when the meaningful decay prevented the use of the building, when the structure of the main hall on the first floor collapsed. Today the villa is owned by the public administration who can't restore it.
Despite changing from a private villa to a public building, the villa maintained the original characteristic. Originally the structure was white in order to exalt the decoration, stained glass and objects in wrought iron. The time passes and the decay continues, but villa Zanelli's ruins remain a good reason for an immediate intervention.
To continue the research on the abandoned "Liberty" building in Italy, the first step here will be to apply the same operations adopted for the "Terme del Corallo" survey and documentation, collecting materials and photogrammetric survey and coordinating them to create a sort of "knowledge" package about this almost lost construction.

Fig. 6 – Villa Zanelli, Savona (Copyright: www.italialiberty.it)

Fig. 7 – Main facade, Villa Zanelli, Savona (Copyright: www.italialiberty.it)

Fig. 8 – Detail, Villa Zanelli, Savona

The third case study "Serre la Torretta" Montecatini

The third case is the greenhouse "Serre la Torretta" inside the Terme la Torretta's park. The greenhouse is part of the establishment of "Terme Torretta" which is located in Montecatini Terme a small city not far from Florence in Tuscany.

Fig. 9 – Pulley system, Serre La Torretta, Montecatini (Copyright: Valentina Fantini)

The story of "Terme Torretta" started in 1904 when Baldino Baldini entrusted Giulio Bernardi with the task of building a Thermal Bath. The Terme Torretta is named after Baldino Baldini's castle which was characterised by a crenellated tower with new gothic shape. The main building is comprised of a circular colonnade dedicated to Giuseppe Verdi. It was the first Thermal Bath in Italy with a vertical water jet and there were three different kinds of water: Rinfresco, Giulia and La Torretta.

In front of the monumental colonnade is the biggest park in Montecatini and Inside this park is a crypt with hexagonal shape, a little lake and a greenhouse.

Fig. 10 – Main entrance, Serre La Torretta, Montecatini (Copyright: Valentina Fantini)

Fig. 11 – Details, Serre La Torretta, Montecatini (Copyright: Valentina Fantini)

This Art Nouveau greenhouse was built in 1905 and is composed of two main building, the first one has a square shape and the second one has a “t” shape.

It was the greenhouse of the thermal bath, inside the building was the main plants of the garden and people whose worked there, were taken care of the garden.

The establishment worked until 90's, changing its main activity.

Fig. 12 – Glass wall, Serre La Torretta, Montecatini (Copyright: Valentina Fantini)

The history of the greenhouse goes hand in hand with the history of the thermal bath; after the abandonment of the “Terme la Torretta” the greenhouse “Serre La Torretta” was also abandoned and the entrance to the park was closed.

Visiting the greenhouse it is possible to appreciate the quality of iron details, the complex pulley system to stretch the awing above the glass roof and the decorated colored glass wall.
The survey was conducted secretly as were the other two cases studies. Th glass roofs are near to collapse and the vegetation is overgrowing inside and outside the building, breaking many parts of the structure.
Visiting the establishment as it is today it is possible to understand the importance of Thermal Bath in the city of Montecatini Terme and how the city is decaying everyday without the flow of tourism visiting the Thermal Bath.

Conclusion

The three buildings presented here as examples have a similar story, in the same period but far through them.This two examples are a little part of a vast territory. I think also this approach could be used for any others buildings with similar story, moreover it could be a methodology for a preliminary analysis in case of building heritage at risk. The main tasks to be developed will be: knowledge of the subject; verification of the methodology; learning and understanding of each single building through digital survey and direct contact with the contest; digitalization with main 3D vocation of the whole set of gathered information; analysis and

development of hypothesis and proposals; verification of the methods; dissemination using the world wide web using contemporary and well working solutions. In this way it is possible to foresee two main benefits: the increase of the knowledge about these almost lost cultural heritage elements, and a try to enhance the sensibility from the people towards the patrimony at risk in the hope to go beyond the simple “it would be nice to do something”.

References

RODRÍGUEZ-NAVARRO Pablo, Vol. 6, n. 12 (2013), Mirco Pucci- Disegnare con la fotografia digitale, articles “Prima che appaia il “divieto di fotorilievo”: considerazioni sulla fotomodellazione”

RODRÍGUEZ-NAVARRO Pablo, Vol. 6, n. 12 (2013), Giorgio Verdiani - Disegnare con la fotografia digitale, articles “La composizione e la luce, esperienze presenti di un futuro passato”

DI BATTE Silvia Menicagli, (2000) Editrice l'informazione. Fatti e personaggi attorno alle Acque della Salute ovvero storia di Montecatini a mare.

CAGIANELLI Francesca e Dario MATTEONI, (2006) Silvana Editoriali. Livorno la costruzione di un'immagine. Tradizione e modernità nel Novecento.

BOSAGLIA Rossana, (1985) NUOVO ISTITUTO ITALIANO D'ARTI GRAFICHE. Stile e Struttura delle città termali

BAIRATI Eleonora e Daniele RIVA, (1997) Editori La Terza. IL LIBERTY IN ITALIA.

GIUSTI Adriana, (1996) OCTAVO Franco Cantini Editore. Le età del Liberty in Toscana, atti del convegno Viareggio settembre 1995.

PIOMBANTI G., (2003), Arnaldo Forni Editore. Guida storica ed artistica della città e dei dintorni di Livorno.

FAROLDI E., CIPULLO F., PILAR VETTORI M., (2008), Maggioli Editore. Terme e architettura, progetti, tecnologie, strategie, per una moderna cultura termale.

Imprint:
Proceedings of the 18th International Conference on Cultural Heritage and New Technologies 2013 (CHNT 18, 2013)
Vienna 2014
http://www.chnt.at/proceedings-chnt-18/
ISBN 978-3-200-03676-5
Editor/Publisher**:** Museen der Stadt Wien – Stadtarchäologie
Editorial Team: Wolfgang Börner, Susanne Uhlirz
The editor’s office is not responsible for the linguistic correctness of the manuscripts.