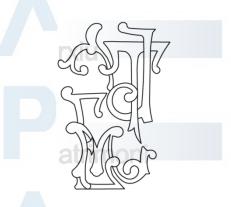


GRADO EN CIENCIAS Y TECNOLOGÍAS DE LA EDIFICACIÓN

TRABAJO FINAL DE GRADO

CAN TINTURÉ. HISTORIA Y ARQUITECTURA



PARTE DEL DOCUMENTO EN INGLÉS



EPSEB UPC

Proyectista: Xavier Sáez Tur

Director: Benet Meca Acosta

Convocatoria: Junio - Julio 2013

Introduction:

This Final Project is the result of graphic the survey and historic study of Can Tinturé building, located in the town of Esplugues de Llobregat.

This document is within the program *L'Arxiu Patrimoni Arquitectònic de Catalunya* (APAC) of the School of Building Construction of Barcelona (EPSEB) UPC. It aims to highlight the architectural legacy by studying graphic and historic heritage buildings.

To carry out the project, I have followed different processes, in terms of plot, field work and historical research, I described in detail in the document. I highlight the knowledge acquired during this academic path, to reach the Final Project, which by necessity, I have had to expand.

The intent of this work, is derived in part from my interest in graphic expression from it's most classical to the parallel evolution through new information technologies.

Besides the fact of being able to participate and make a new document from a heritage building at to the APAC.





EPSEB UPC



One reason that I choose Can Tinturé, building for my project is the interest. I have always had when seeing this state building, originally designed to house and converted now into a museum. It is located in a space which highlights its presence, between a natural environment is the old green park *Torrent d'en Farre* and dominatinh a street of ancient dwellings, more austere and with- two floors, which make up the historic center of town.

With the mysticism that belong to the old mansions of the late nineteenth and early twentieth century, hiding their true identity behind high walls and hedges, Can Tinturé has always aroused in me a feeling of curiosity.

That curiosity is accompanied by the question of who lived there and how they could erect a building as a result of high economic status. That answer almost always is given in the same manner when analyzing the history of small towns, old families, land and property inherited from decades of hard work in the field and sometimes speculation.

But in the case of Mr. Tinturé, without being a case other than the above, he is a sample of good deeds of the rich people of the time, who in the early twentieth century was part of a political, social and cultural boost in order to improve the municipality of Esplugues de Llobregat, as explained in detail in this document.

In addition to the efforts by the municipal administration to preserve and improve the building and its surroundings during this time, Can Tinturé is currently one of the heritage buildings of Esplugues with more cultural activity over several decades.

This document contains:

INDE	x	PAGE		PAGE
MEMO	DRIA		DOCUMENTACIÓN GRÁFICA	43
1.	PROPERTY LOCATION	3		
2.	ESPLUGUES DE LLOBREGAT. HISTORICAL AND URBAN SITUATION	4		
3.	HISTORIA DE CAN TINTURÉ	5	CONCLUSIONS	80
	3.1 El matrimonio Tinturé. Joan Tinturé Campreciós y Enriqueta Munné Comas	5	BIBLIOGRAPHY	80
	3.2 Evolución, transformación y usos	7	ACKNOWLEDGEMENTS	80
	3.3 Claudi Durán i Ventosa, el arquitecto de Can Tinturé	13		
			CD CONTENTS	80
4.	LA FINCA CAN TINTURÉ	16	rxiu	
	4.1 Descripción general del edificio	16	ANEJOS	81
	4.2 Estructura	16		01
	4.3 Cubierta plana	17	atrimoni A. CROQUIS	82
	4.4 La escalera	17	B. DOC. GRÁFICA AYUNTAMIENTO	87
	4.5 La torre	18		
	4.6 Fachadas	18	rquitectònic	
	4.7 Pavimentos	20		
	4.8 Cuadros de superficies	21		
	4.9 Recorrido por Can Tinturé. Archivo fotográfico	22	atalunya	
5.	INFORMATION SEARCH	31		
6.	GRAPHIC SURVEY	33		
	6.1 Field work	33		
	6.2 Digitalization job	36		
	6.3 Used material	42		

1. PROPERTY LOCATION

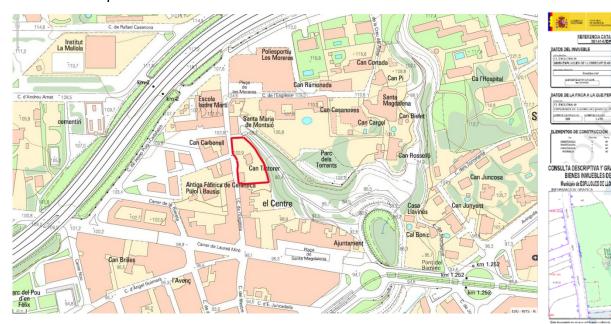
The property Can Tinturé is located in the municipality of Esplugues de Llobregat, in the Baix Llobregat, Barcelona, Catalonia, Spain.

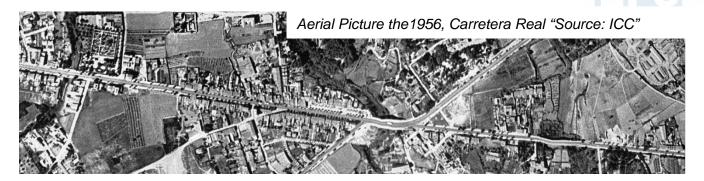
The manor house Can Tinturé, Masoveria building and gardens currently public, make up the estate of two thousand six hundred eighty-five square meters.

The manor house is situated in the Esglèsia street number thirty-six, bordering south with existing buildings, park *Torrent d'en Farre* from the east side and the stairs to the park from the north.

Since the location, is the most historic area of the town, we are within walking distance to landmark buildings such as the former ceramics factory Pujol i Bausis, the monastery of the parish church Santa Maria de Montsió, of Santa Magdalena, among others.

Location this plan and cadastral file thumbnail







Aerial views in perspective of the Esglèsia street and the estate Can Tinturé "Source: Bing Maps"



2. ESPLUGUES DE LLOBREGAT. HISTORICAL AND URBAN SITUATION

The following is the historical and urban situation of the planning town, which precedes Can Tinturé building, and subsequent events, where urban events have been highlighted of the late nineteenth and early twentieth century periods.

Esplugues de Llobregat is a municipality of 4.60 km ²; It is territorially defined by the limits of Mountain Sant Pere Mártir and Sant Just Desvern to the North mountains, Barcelona and l'Hospitalet de Llobregat to the East, Cornellá de Llobregat to the South , and the towns of Sant Joan Despi and Sant Just Desvern to the West.

The growth process of Esplugues de Llobregat has been conditioned by the geographical location of the population and it's environment, the northern mountains and gullies that divert to the plane of the Llobregat.

One of the most important determinants of its growth, is to be a territory of transit and also a strategic point crossed by roads that have been shaped over time, being in many ways, as a gateway to Barcelona. This is the case of the construction in the eighteenth century (1763-1765) of *Carretera Real* linking Madrid and Barcelona. It is also important to cite the construction of a new road network, in 1903, the road from Cornella to Sarria, in the southwest slope, creating new communities that grow on both sides of the road.

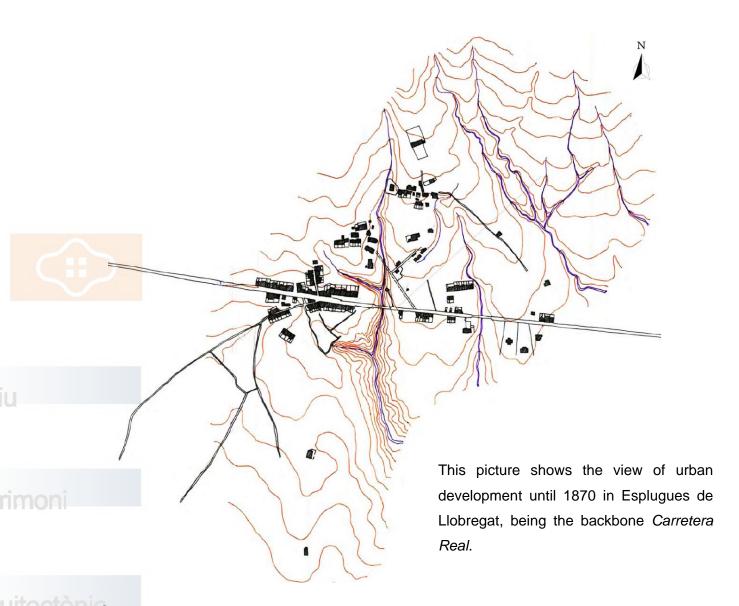
The XIX century

Early in the century, the of population Esplugues was negatively affected by a poor crop year in 1811, which was further damaged by several wars the year 1813, during the French War.

By mid-century, from 1833-1876, followed the Carlist wars, the population was significantly reduced, recovering by the end of the century.

At the end of the century, consolidated with *Carretera real* the industrialization of Esplugues comes mainly from the branch of architectural ceramics, tiles, through Márius Jourdan factory Pujol i Bausis, It which was not managed until 1886 by the Pujol family, the owners of the land.

Many of the houses *de la Església street*, built on the eastern side, in the grounds of the farmhouse Colomer, are from late nineteenth century, which is the Can Tinturé of case.



The XX Century

The turn of the century, with the addition of Cornella road to Sarria, 1903, will result in a revaluation of the land, mostly rural, and growth of the population, with the arrival of new political, social and cultural changes.

Following the change of policy of the new century, the municipal architect Gabriel Borrell i Cardona; will play an important role in the urban planning of the municipality, known as by Pla Borrell.

The urban development of the town will continue in the basis of initiatives to develop rural land in the hands of the municipal architect Nicolau Rubio i Tudurí.

During this century, the evolution of the urban fabric of Esplugues de Llobregat, will be influenced by political factors such as the Second Republic, the postwar and the different development plans belonging to the historical development.

5. INFORMATION SEARCH

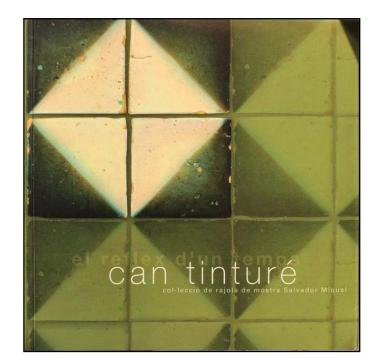
Below I describe the process undertaken to extract the information that has allowed me to develop the project.

Being clear about the heritage building which was to be my final degree, I decided as a first step to inform me in the internet. As being a museum, there are many reviews of cultural pages naming the building and minimally detailed as an introduction to what comes to be the explanation of the above at the museum.

The next step was to make a first contact with the museum to check it would be possible to all access freely to the whole building and seek historic advice.

I called the Can Tinturé museum, to introduce myself as a student of the EPSEB and UPC and explain my intention to work., I was advised to speak with Roser Vilardell Tarruella, director of the museum and heritage department director of Esplugues de Llobregat, to state the case and receive advice.

When I contacted Roser Vilardell, she advised me to consult the book historical theme "Can Tinturé, el reflex d'un temps: "Col.lecció de Rajola de mostra de Salvador Miquel" of which she is one of the authors of the work as historian, and where there is a tour of the building's past and especially of its first owners.



Picture of the book: "Can Tinturé, el reflex d'un temps: col. lecció de Rajola de mostra Salvador Miquel"

This book has been very helpful to solve the historical part because of his elaborate search for information about the first owners of the property, marriage Tinturé.

I also had in mind to the contact the municipal architect Joan Mamano Roig responsible for the latest reform undertaken by the architect Joan Claudi Minguell, for advice and technical information on the state of the building before the reform.

Same time and for the duration of the TFG I have informed me in books, articles, magazines and other media, not only about the building itself, but also the town, its history, architectural evolution, its role as township outskirts of Barcelona and resort for the better off citizens of the capital are.

Another key step was the visit to the *L'Arxiu Municipal de Esplugues de Llobregat* (AMEL), to see the old 1898 record of work, information and old photographs, of which I could draw several file digitally in order to translate them into work.

Picture of "L'Archiu Municipal d'Esplugues" (AMEL)

Archive staff, Marta de Planell and Francisco Duran helped me in finding information, providing me all the material they had available.



During the visit to the archive I could talk to Marta Saliné, the curator of the museum, where we exchange views on the building and I commented on the absence in of the file original distribution of the plant, and I explained about original floor, which was still preserved in the house.

Since I learned about this information I have spent a significant part of the research carried out to try to locate any sign of the possible original distribution.

An important step to formalize my presentation as a student and pass my access to the house and all its dependencies to measure and take pictures, because inside the museum is prohibited, was the drafting of a letter from the tutor's project Benet Meca Acosta.

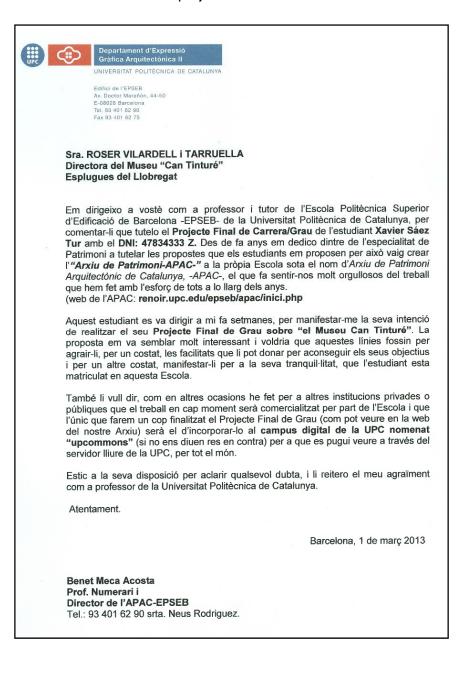


Image of the cover letter.

Adressed and delivered to the director of the museum, Roser Vilardell. Once in the museum ,the responsible for access, Juan González, allowed me access to all the rooms freely, so that I could work very comfortable during the visiting days.

One of the most important steps of the research on the evolution and transformation of the building and its surroundings was the meeting with the municipal technician Francisco Galisteo.

Previously, he held a telephone conversation with him expressing my intention to work, so the day of the visit he gave me, very quickly, information, advice and plans of the reforms that had taken place historically in the building from its first in 1978.

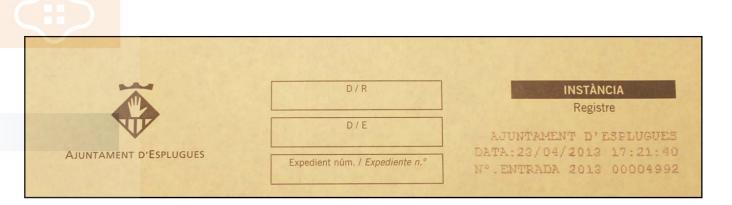


Image header instance I had to do to get the scanned images of old blueprints of reforms.

From these floor plans and sections I made observations and could draw comparisons between the planes and the current state, considering extracted texts that speak of such modifications.

Finally, and still one of the tasks which required more time, has been to analyze all the stuff and extract the information that is interesting for display on my project.

The observation and analysis of the environment and the building, contrasting with the information obtained during the study, is a critical step to clarify historical events and understand why the natural history of the building.

6. GRAPHIC SURVEY

"From reality to the role"

I will explain the process I have undertaken to perform the drawing lift of the building, describing the techniques and tools used.

6.1 Field work

First, prior work observation study is noteworthy, and the building planning, its setting and context as the start of fieldwork.

In order to optimize the timing and outcome of in situ processes, the first visit to Can Tinturé building was to observe the site in order to do the work of drawing, taking measurements and photographs of the exterior, so and to analyze the obstacles that I could find, as difficult sites or impossible angles of the building to take photographs or to observe easily.

It was also important to note the influx of people both in the area where I was to perform the work, which are currently open to the public gardens, and inside the building. I talked to the access manager of the museum Juan González to plan that the days that were to perform work in the building there would not be scheduled any visits by schools or other activity centers.

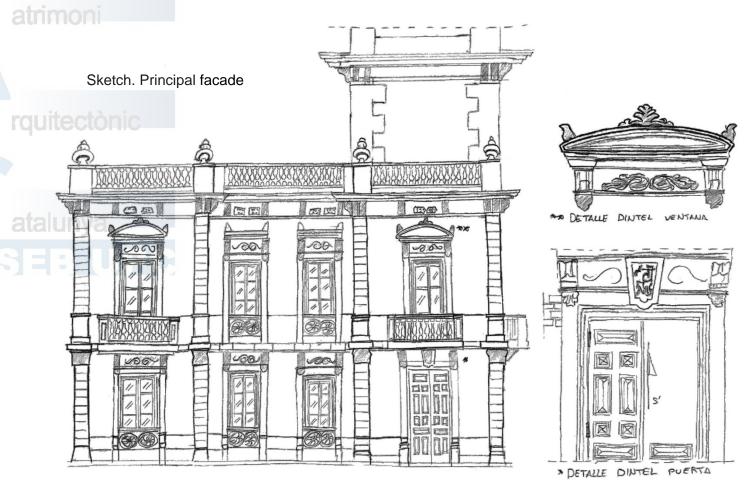
To summarize I will indicate which factors I took account in planning subsequent fieldwork:

- Climatology
- Time of day and the Sun position.
- Influx of people (both outside and inside)
- Sites with difficult access
- Restricted Walkways
- Impossible to photograph Angles
- Area to save the drawing materials and measurement
- Areas to work comfortably

The next step was to make sketches of plants, building facades and details, using technical drawing sheets of A3, different hardness pencils, rubber and a support table, this way I could freely and comfortably move anywhere.



Note that thanks to the initial planning I won a long time in organization aspects as I could carry out the work inside without any visitors, warning the days I went, and I did the works outside without the need to be within museum hours, knowing the hours which were less influx of people in the gardens.



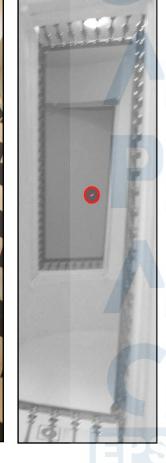
The measures making phase overlapped with the last phase of drawing sketches since I had enough material to start measuring, thus being able to take more profit of the field visits.

I perform the measurements in two phases, measures indoor and outdoor. For this I counted with the help of another person in order to make more effectively the data, as this task, if done by one person can be very complicated and the margin of error is multiplied.

For taking internal measures mainly I used a laser meter mark Stanley as its versatility allows us to collect data very quickly and get points, especially high ones, which are otherwise difficult to access.

The Pictures on the right show the use of laser meter for the total height from the first floor plant to the tower plant forged.



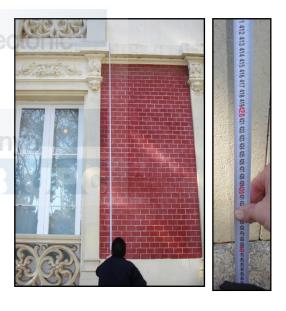


Given that it is a tool and can be errors due to placement of the device, imbalances between the laser transmitter and receiver, and that measures are being carried out on elements already built seemingly regular but with small horizontal and vertical offsets, several measurements of the same rooms and elements are made to test the data and then squaring them. This can be done with relative ease thanks to the speed at which data is taken.

To take measures of small elements, flat surfaces like pavement, steps, trim and highly reflective materials where laser optics distorts the tape measure was used.

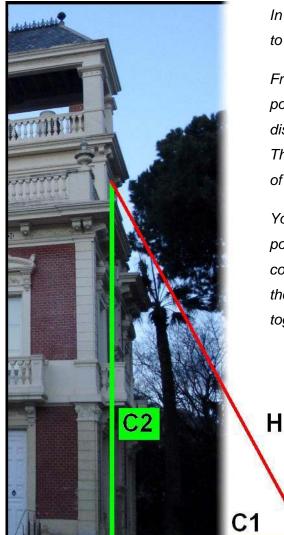


For taking external measures I used a 30 meters tape to the perimeters of the facade, balustrades and general elements. For the more complex facade elements and details of moldings, I mainly used the flexometer.





For taking less accessible heights and salient elements of the facade, which could not be measured by other means, I used the laser meter.



In some cases, measures are taken so that, being able to apply Pythagoras theorem, you could find the height.

From a fixed location we takes the distance (H) to the point that we want to know the height and relative distance (C1) of the position in which we find ourselves. The resulting height (C2) is the result of the square root of the product of $H^2 - C1^2$.

You have consider the correct position, between the two points verticality and horizontality taken the device to conform 90th angle to each other. Also take into account the relative height at which measurements are made together, with the height found.



The pictures on the left are an example of how photographs are taken so as to appreciate the reference metric tape measure and angle of the front jack is as order to avoid, insofar as possible, an excess of perspective to facilitate subsequent edition.

All measures were notes as values in the sketches made earlier. Given the complexity of some data schemes and references were made at the time of measurement.

rouitectonic

| Section |

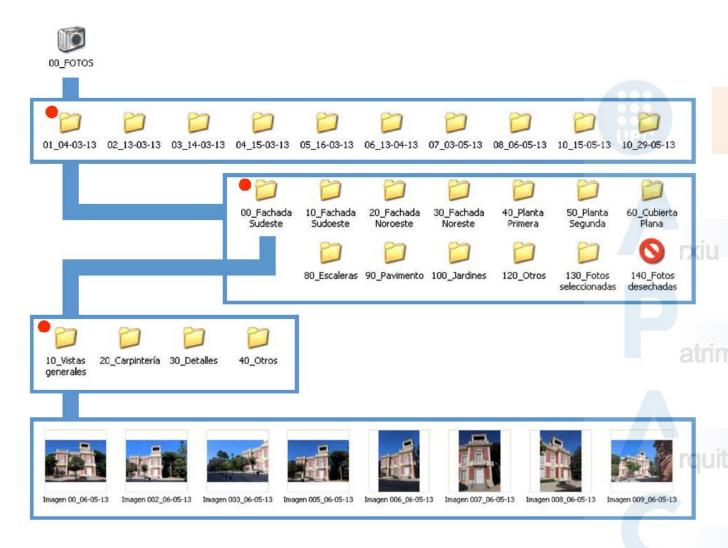
It took into account the difficulty of taking action with the laser device on the outside, due to the brightness of the day, in order to solve this problem such measurements were made late in the afternoon when there is low light and receiver can detect the emitted laser point.

 $H^2 = C1^2 + C2^2$

For detail items took photographs with metric references, to obtain measurements by digital editing.

I performed a digital photo story every day of visit to the building, in order to have the greatest work material as possible.

Order is required both in taking pictures and the organization of the virtual files, to ensure that we have all the views needed and to work with them in a comfortable and controlled way.



The diagram above is an example of the organizational structure of the photographic archives taken, so that the folders are ordered by the date they were made.

Each folder is sorted by subfolders, in this case, by areas where the images were taking, and within another subclassification indicating the various collections.

In this way it was possible to quickly control the material that I had and that may need to see depending on the needs of the moment.

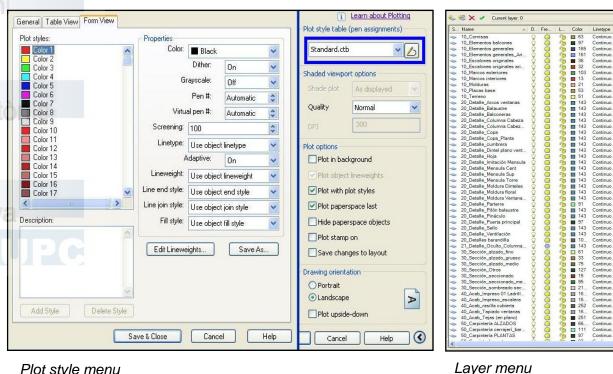
6.2 Digitalization job

The digitization process has he been done mainly with the software AutoCAD 2008, a vector drawing software.

As first steps before you start drawing, you have to take into account a file preparation work, it is essential to prepare the beginning, as the course of action depends heavily on set parameters that determine both the working time as final results.

The main factors are:

- To create a system design (plot style).
 - In my case I created a single trace file called Standard.ctb, being a very generic and functional model that allows us to assign the line types and thicknesses of the layers directly in the file, use 255 colors on screen and allocate work across the range color and true color. The main reason for using this system is its speed in changing line parameters.
- To Create a layer system. Having controlled layered drawing elements encoded and ordered and combining them into groups, make changes directly affecting the whole file and work comfortably and effectively.



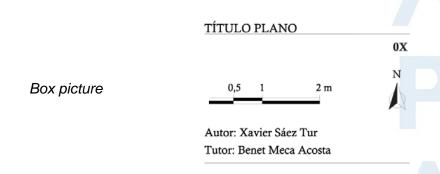
Plot style menu

- To fix work units (meters in model space millimeters in paper space)
- To create a box and a space of layout (paper space)

The APAC logo was digitized with AutoCAD by tracing from a file provided by the tutor to get it for vector and create a block.

Although this process was not required having the image file, I chose to do so and not rely on an external image or image type OLE.

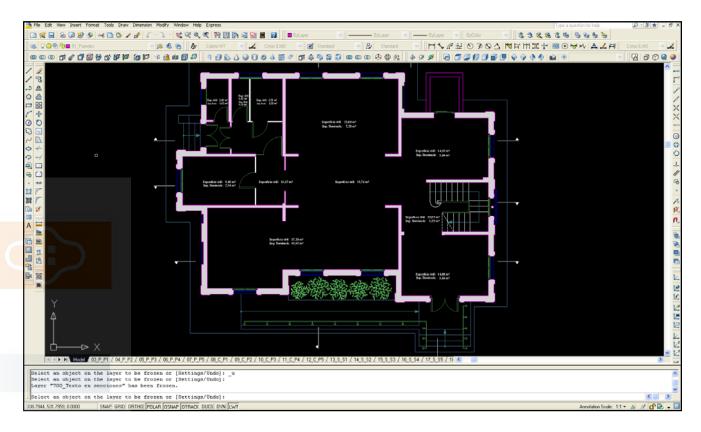




At this point it really begins digital representation with all the material collected and organized.

From the sketches, taken measures and photographs I started drawing with AutoCAD the plans, sections and elevations of the building.

This is a long and meticulous process because it depends on a correct interpretation of the material collected in the field, an effective and controlled methodology so that the results are of high quality drawing and a good job of designing the presentations as they will be the project display.



Screenshot. AutoCAD Program. Ground floor

The first thing represented were the floors. Having taken enough measures during the visiting days, some duplicates and some from other angles, I could contrast the small gaps that occur once the sketch is passed to the program.

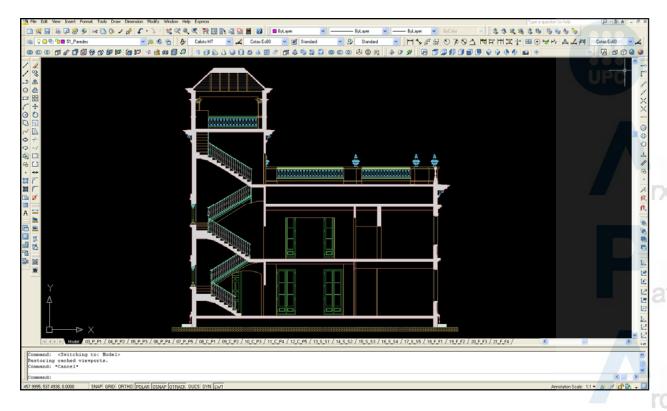
As first step, the exterior walls and partitions including its thickness were defined, then placed the window and door openings.

It is important, to considerer that he building had been converted to museum ,it redesigned with more open spaces, allowing more regular and simplified plant. This fact facilitates both taking action as its initial representation.

I also represented new elements after the reform as the elevator located in the northwest facade and the main entrance to the building.

Representation and trunk sections of the ladder were more complex because the heights of the rooms were conditioned to false ceiling from the reform, but thanks to some special points of the building where there was no false ceiling I could draw actual heights until the slab.

In the flat roof of case, being a Catalan Cover creates a ventilated cavity of considerable size, as well as the formation of earrings. For this study, the references without tilt.



Screenshot. AutoCAD Section.

For the representation of sections the most critical points due to the ease-of-balance of measures were mainly the stairs and inaccessible parts.

With the laser meter measurements can be obtained, which, though not direct, through mathematical operations values to resolve critical points are obtained, as was the case of the bottom of the sloping roof tower plant.

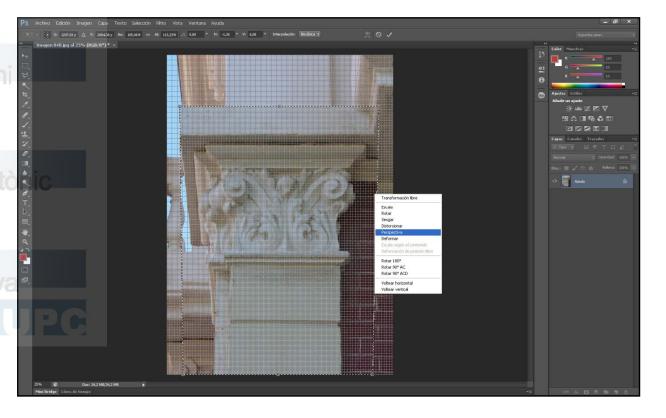
The representation of the facades was more particular performed because of the amount of detail which is composed and its complexity.

For this study measures of the public facade elements were taken inside the building such as the window and door openings in parallel, and at the time of the representation, contrast and to represent more rigorously.

The performance was slower and more complex due to the drawing system details such as moldings, pediments, ornaments, capitals and more.

The system is that once chosen the photograph of the item you want to represent is edited with the Photoshop program.

The edition with this program consists of the image distorting, taking an additional a mesh (grid) of reference so that it is as frontal as possible, trying to remove as much perspective caused by the shooting angle of the photo as possible.



Screenshot. Photoshop program. of capitel detail

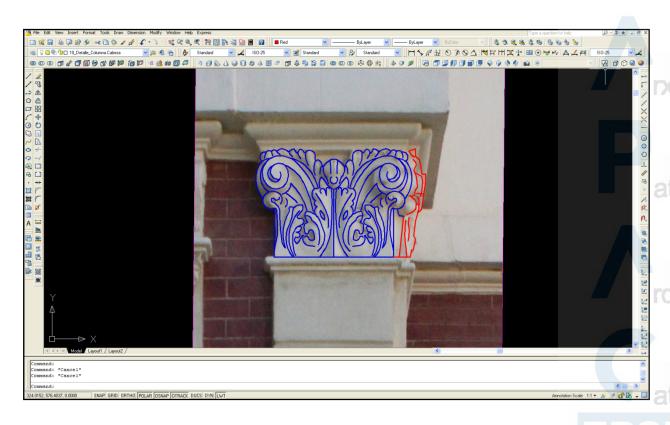
The image shows the perspective distortion effect which can be done with this photo editing.

After you edit the image with which we will work it is inserted into the AutoCAD program as external image reference.

It keeps track modeled or lines (polyline) on the lines of the image that we want to get as vector drawing.

Once this process is finalized, it is important to convert the result into a block in order to be able to handle it in a comfortable, direct and controlled way.

This also ensures that all changes made in a block are automatic for all the same elements.



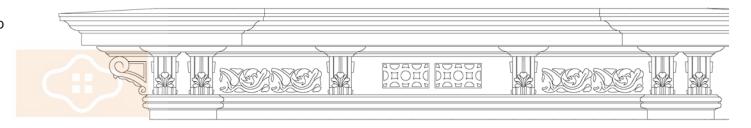
Screenshot. Photoshop program. of capitel detail

This picture shows the monitoring of polylines ,on the photograph. The edges of the capitel wanted as a final drawing are represented.

Being a symmetrical element from a central axis, one half was drawn and the other completed with the symmetry order.

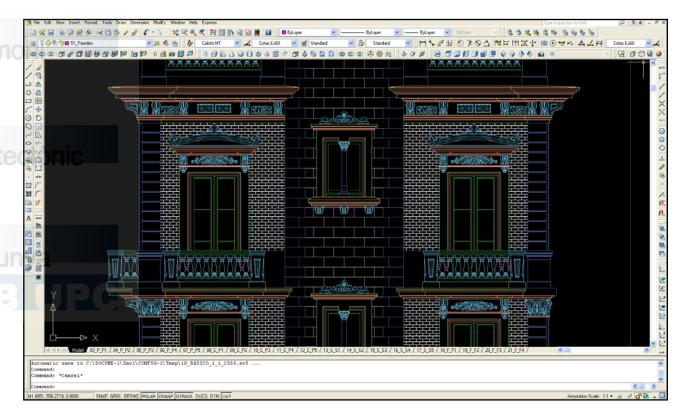
To get the details represented to the fullest extent possible, I took into consideration the proportions and appropriate measures. This was done by reference to measurements taken from the elements.

In the most inaccessible points, the measures were calculated from photographs were details with reference elements of measurements coincide, so by calculation of ratios the references unknown were obtained.



Frieze details

Once all the elements of detail were obtained, the facades completed together with the measures taken and, the references of plans and sections already drawn.

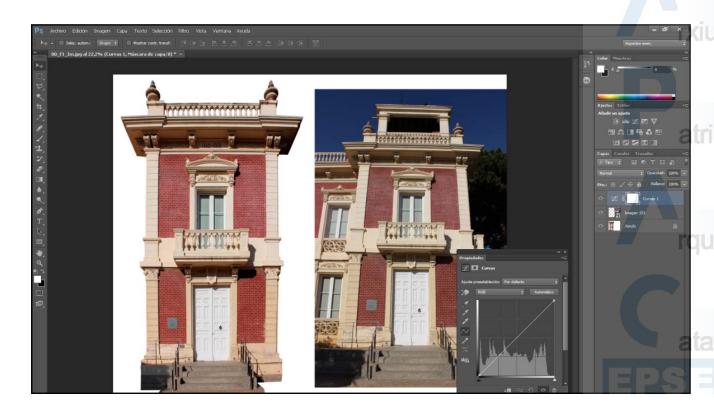


Screenshot. AutoCAD Program. Facade

For detail drawings images were edited with Photoshop CS6, following various techniques of photo retouching and cropping.



Screenshot. Photoshop program. Front detail



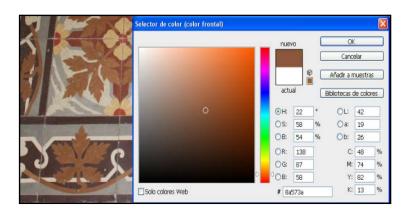
Screenshot. Photoshop program. Main entrance of detail

The above images are a sample of the original photographs edited and the result obtained after applying of perspective corrections and emptying of backgrounds.

In the case of pavement detail, in order to obtain more vivid color similarity in the digital editing, an approximation is obtained through color RGB model from samples photographs.

The right image shows the color-coded menu to view a specific point of the photograph.

RGB code is obtained numerically and applied in the drawing as shading issue.







Digitalization example of the pavement

The following images are a sample of the result of retouching.

The pavements in their original colors are highlighted while the rest is converted to grayscale



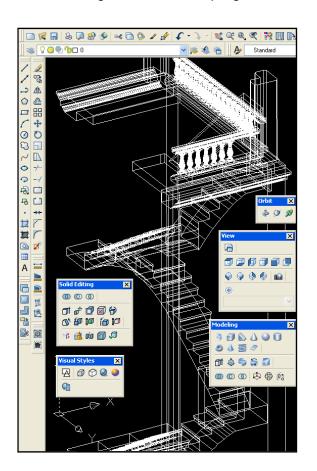


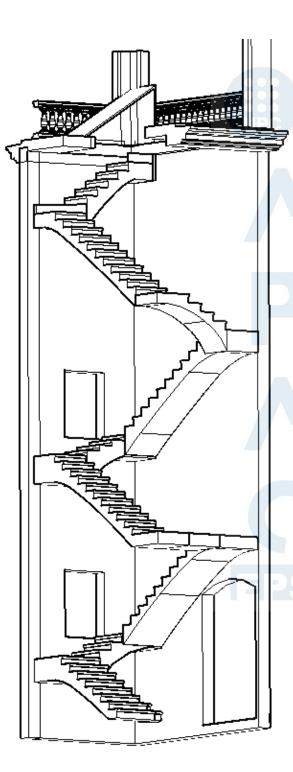
Shaping was made though three-dimensional visual space in AutoCad, allowing work from blueprints or drawings of two coordinate axes.

The modeling program is more accurate in the case of a composition of extruded surfaces and shapes little complex and normally geometric.

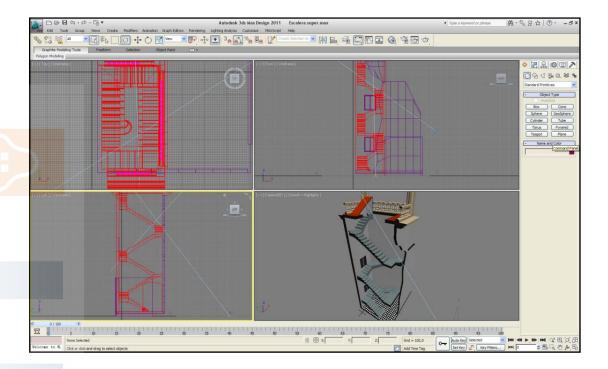
The right image shows the result of modeling of the stairs of the building by sketch section mode.

The bottom image shows of the most frequently used command in editing and 3D modeling AutoCAD 2008 program.





For the continuation are exported the models to 3D Max Design 2011 program, this being a special software for three-dimensional editing, modeling, photorealistic lighting, texture mapping, effects and more.



Screenshot. Autodesk 3d Max Design 2011

Once exported the model created in the AutoCad program is completed with elements that are created in the current program; This is done at this point by the ease of creating and retouching with the tools that are available.

Once fully completed the model becomes an editable poly that enables to make adjustments to the areas of interest without affecting the entire model. Then I applied relief effects, textures, colors or other visual effects that sometimes are only appreciated in the final rendering.

Lighting is applied, in my case I use a system of light and rendering engine Mental Ray, one of the most powerful offering the program for photorealistic results. The following steps are the placement of a camera or display and rendering.

From the obtained this picture retouching with Photoshop is made, as they can be specific corrections or effects that would otherwise be a very slow process in 3D Max and re-render the entire model. From this process we would get the final result.

6.3 Used Material

The hardware and software used throughout the project is shown below.

Drawing of materials:

A3 sheets for technical drawing pens of different thicknesses and colors, eraser, pencil sharpener, pens support, a table for paper and folder.

This is the material needed to make sketches when doing field work comfortably and precisely.



Camera Canon EOS 600D with 18-55mm lens.

It has been used to make digital photographic report.



Calculator Casio fx-82MS

It has been a basic tool for both fieldwork and the cabinet. Used in a secondary manner in measurements and drawing.

Measurement material:



Stanley TLM 100i laser meter with accuracy of ± 3 mm to 30 m (maximum distance)

It has been used mainly to measure indoor spaces, heights and inaccessible areas.

Measuring tape 30m roll away.

It has been used primarily to measure long complex distances of the facade.



Software:

drawing programs Vector:

- AutoCAD 2008.
- Autodesk 3d Max Design 2011.

Image editing:

- Adobe Photoshop CS6

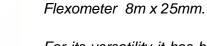
Documents editing:

- Microsoft Office Word 2007

Document Management:

- Adobe Acrobat 7.0 Professional.
- Dropbox. Network Storage Program.





For its versatility it has been used especially in complex areas to measure short distances, facade elements, flat surfaces among other.













Computer equipment:

Desktop PC.MS Windows XP Home SP3

Intel Core2 Quad Q6600 2.40GHz CPU, 3.2 GB RAM

Graphics Card: NVIDIA GeForce 9800 GT

TFT screen 21 inches.



Conclusions.

Throughout this journey, which it has been the Final Project, my work, time and effort investment have made me reach several conclusions that may be reflected at the moment.

Referring to the work I have done for more than over four months, my main conclusion is the importance of a good methodology, priorizing factors such as daily constancy, order, permanent, time devotion, productive or not, and learning drawing techniques that allow a better result with greater efficiency. But above all to make every aspect trying to give the best of oneself, because knowing that you are trying to do the right thing is, enough motivation to go the way of the Final Project satisfactorily.

Regarding the building itself, I have known it in great detail, even at the time of its graphical representation; I imagined the methodology with which it was built over a century ago. This is due to the need for a proper analysis of the existing building so that I could capture on paper or digital file, in the most realistic and scientific way.

Also I say; that ,in my opinion, the architectural graphic expression, though having common parameters and logic, allows each person performing it the opportunity to shape their identity, being an important factor for me the easy interpretation and sobriety in the drawing.

In relation to the historical study, in addition to I approaching myself much more closer to the history of my native town, Esplugues de Llobregat, I am not indifferent to the fact that the remaining of the relevant architecture, being a reflection of the past, is a great value to study and to especially preserve.

Bibliography

Ajuntament d'Esplugues de Llobregat. (2003), Can Tinturé, el reflex d'un temps: col·lecció de rajola de mostra de Salvador Miquel. Electa edition, Barcelona.

Ajuntament d'Esplugues de Llobregat. (2001), *Un passeig per Esplugues. Itinerari historicoartístic.*Ajuntament d'Esplgues de Llobregat edition.

Director: Jaume Campderrós Fuigueres (1999), *L'Abans. Esplugues de Llobregat. Recull Gràfic 1895-1965.* Efadós editorial, El Papiol, Barcelona.

Diputació de Barcelona. Àrea d'Infraestructures, Urbanisme i Habitatge Servei de Patrimoni Arquitectònic Local (2007) *Inventari del patrimoni històric, arquitectónic i ambiental d'Esplugues de Llobregat*. Chapters 1 and 2. PDF

Magazine "El PONT" Revista municipal d'informació. Numbers 210, 211 y 212. "Ajuntament d'Esplugues de Llobregat" Edition.

Information from brochures of cultural organizations and museum events has also been obtained.

Internet sources, searched in 2013:

renoir.upc.edu Arxiu de Patrimoni arquitectònic de Catalunya

upcommons.upc.edu UPC Commons. Portal d'accés obert al coneixement de la UPC

esplugues.cat Web del ayuntamiento de Esplugues

cehopu.cedex.es Historia del hormigón armado, 1893-1902: La importación y primeros talentos. El

arquitecto Claudi Durán i Ventosa.

Acknowledgements:

I want to thank my tutor Benet Meca work, who has advised and encouraged me along my Final Project to continue to achieve good results.

Also I thank those who have sometime offered me their cooperation in order to get better outcomes, with their help, advice and recommendations.

Finally, I thank the people working at the museum Can Tinturé, and other municipal agencies for their contribution during the course of my project.

CD contents

CD of TFG "Can Tinturé. Historia y arquitectura" contains the following files:

TFG 10 Memoria CanTinturé.pdf

TFG_20_ Memoria inglés_CanTinturé.pdf

TFG_30_Documentación gráfica.