

POLYTECHNIC OF TORINO  
FACULTY OF ARCHITECTURE 1  
Degree in Architecture  
Honors theses

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### Employment of stone material in Turin (1920-1940)


by Barbara Tosco

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This study focuses on the employment of stone material (marble, stones and granites) in Turin in the period 1920-1940. The relevant data were translated into a hypertextual and multimedial application and were destined for the Internet (HTML). I created a hypertext including about 300 records of buildings, with relevant images and project sheets, and 140 records of the material employed with a view to help users access this data bank easily. In addition, this hypertext aims to present a route that enables the virtual visitor to move through the streets of the city, see its buildings, rediscover and revalue Turin.

This project was developed in different phases. I first worked at the Archivio Edilizio della Città di Torino (the Building Archive of Turin, AECT), where I concentrated on the city territory and found the buildings that I intended studying. I was also able to examine the relevant papers (including the relevant project sheets and use permissions) that not only provided indications about projects, construction companies, architects and authors/ engineers, but were also a good source of information concerning the material used as facing and for decorations. A bibliographic research based on published articles and monographic texts regarding the city was also carried out and its information was added to the previously collected data. I subsequently investigated each building; I took photographs of the constructions and examined the material employed. This analysis was based on specific textbooks reflecting on stone materials, describing their characteristics and providing images representing them. Textbooks were an essential instruments because they let us identify the employed material.

**CASA RIVA**  
Via Palmieri n. 4 / Via Talucchi n. 20  
Arch. PAGANO A. - 1932



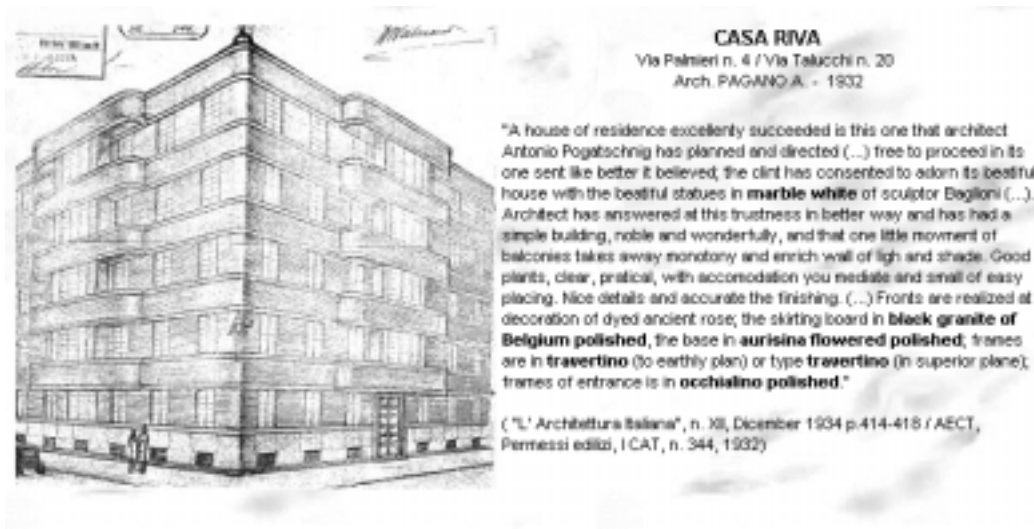
Prospect

Particulars

SCHEDA					
N.	ELEMENTS	MARBILE	STONE	GRAN.	NOTE
3	SHIRTING BOARD	B-067-B			"NERO NUBEE del BELGIO LUCIDO"
4	BASE	W-004-B			"AURISINA PIORITO LUCIDO"
5	FASCE MARCAPIANO	W0Y-123-A			"TRAVERTINO di RAPOLANO LEVGATO"
26	CORNICE P.T.	W0Y-123-A			"TRAVERTINO di RAPOLANO LEVGATO"
41	STATUA	149-B			"STATUARIO LUCIDO"
74	CORNICE PORTA	W-075-B			"OCCHIALINO LUCIDO"

In order to homogeneously collect all the datas and organise them in a user-friendly way, a specific filing-technique was employed. The standard file framework which I used for this project was a re-elaboration of a model employed by Prof. Giovanni Brino during his investigations in Italy and abroad. I prepared a new version of it, adapting his specimen chart to the specific filing-needs concerning this research.

Each building is described in a record, providing denomination, address, name of the architect, year of construction, a photograph (that I had a chance to take during the survey), a list of elements regarding its façade or its interior, including a specification of the materials employed (marble, stone or granite). Each material has an alpha-numeric code (W-001); specifications of materials include physical features (for example, green cipolin of Versiglia), manufacturing process (for example, polished) or natural state of employment, also identified with an alphabetic code (A). Project sheets and representations of details are sometimes added to the card.



In order to let users easily access such files, two tables of contents were provided:

- A chronological index, listing buildings, streets, avenues, squares and designer by year.
- An author index, providing a list of planners in alphabetical order and including name, address and year of construction of the buildings designed by the same architect.
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Finally, a map was drawn dividing the city into areas, where users can easily spot interesting streets and/or avenues and eventually visit the relevant buildings.

	<b>AURISINA ( W-003)</b> <b>Place of excavation:</b> Aurisina (TS) <b>Category of stone:</b> LIMESTONE COMPACT <b>Color:</b> WHITE <b>Nature of pigment:</b> NO PIGMENT <b>Traceability:</b> LIMITED			
<b>DESCRIPTION</b>	"Limestone with clear ground and black dotting finely arranged". (1)			
<b>DIGGING OUT AND PROCESSING</b>	"They are polished". (2)			
<b>TECHNOLOGICAL CHARACTERISTICS</b>	Load of breakage at compression: Kg/cm <sup>2</sup> 1.455 Coefficient of imbibition: 10,60 % Resistance of traction: Kg/cm <sup>2</sup> 137 Resistance to collision: cm 31 Coefficient of thermic dilatation: mm/m°C 0,0044 Wear (coefficient): 0,61 Load of mass : Kg/m <sup>2</sup> 2.586 (3)			
<b>TYPES OF JOB</b>	"Monumentals works, floors, insides and outsides coverings". (4)			
<b>EXAMPLE OF USE TO TURIN</b>	Liceo Cavour Casa d'abitazione	C.so Tassoni n. 15 Via Massena n. 93	Uff. Tecnico Gyra	1930 1934
<b>DEGRADE</b>	"Limestones of notables hardness and resistance also compared with frost and saliness". (5)			

As regards the materials, they were coded in the hope of quickly identifying and filing them. Each material has an alpha-numerical code (for example, W-000-B = white, arabesque, *corchia*, polished). A list of the materials is obviously included. A record for each material was also elaborated, providing the relevant data and illustrating how they are employed. In its upper part, each record is comprised of an image and includes denomination, correspondent code, excavation area, type of stone, colour, nature of pigment and availability. In its lower part a more detailed description, possible digging and manufacturing processes, technological characteristics, types of process, relevant employment in Turin, deterioration are encompassed. Bibliographic references substantiate each piece of information.

A further study of stone materials was added to this work. It supplies their history, definitions and general considerations. Geological (eruptive rocks, sedimentary and metamorphic), and commercial classifications (marble, stones and granites), with a description of each stone, are also provided. Finally, digging and manufacturing processes are accurately described. Qualitative (surface smoothing, aesthetic value), technical (compression, traction resistance) features, and information about potential employment of the materials are also listed. The final part reflects on the deterioration (caused by physical, chemical, biological agents) and on the modes of preservation and recovery (for example, cleaning) of such materials.

For further information:

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