Polski Komitet Narodowy
Międzynarodowej Rady Ochrony Zabytków
ICOMOS

FONDAZIONE ROMUALDO DEL BIANCO

SAPIENZA
UNIVERSITÀ DI ROMA

POLITECHNIKA LUBELSKA

UNIVERSIDAD POLITÉCNICA MADRID

SAPERE AUDE
VILNIUS GEDIMINAS
TECHNICAL UNIVERSITY

FONDAZIONE FLAMINIA
PER L'UNIVERSITÀ
IN ROMAGNA

Sustainable
Urban
Rehabilitation in
Europe

Architectural Conservation Studio

Erasmus+

ARCHITECTURAL CONSERVATION STUDIO

1. INTRODUCTION. A BRIEF GUIDE TO GRAPHIC REPRESENTATIONS

SAPIENZA
UNIVERSITÀ DI ROMA

Prof. Calogero Bellanca

Course of architectural and conservation studio

	PROGRAMME OF LECTURES	CONTACT HOURS		
		LECTURES	EXERCISE	DESIGN
1	A brief guide to graphic representations	3	4	2
2	Methodical study of monuments	5	3	
3	Methodical study of monuments. Church of "La Martorana". Tower bell and new façade.	3	2	
4	Methodical study of monuments. The medieval tower bell. Comparisons.	3	2	2
5	Sermoneta: the church of Santa Maria Assunta	4	2	
6	Antonio da Sangallo il Giovane	3	2	
7	Antonio da Sangallo il Giovane and some of the Via Appia (Rome)	3	1	
8	Italian architecture from 16th to 18th century; diffusion in Central Europe. ZAMOSC. Study and proposals for conservation.	3	1	
9	"Roma Barocca" *(Baroque Rome)*	4	1	
10	Italian architecture from 16th to 18th century; diffusion in Central Europe. LANDSHUT AND OTHER EXAMPLES. Study and proposals for conservation.	3	2	2
11	Palazzo Sternberg (Vienna)	2	1	
12	Liturgical adaptation.	3	1	
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14	Graphic representations. Examples I	4	3	2
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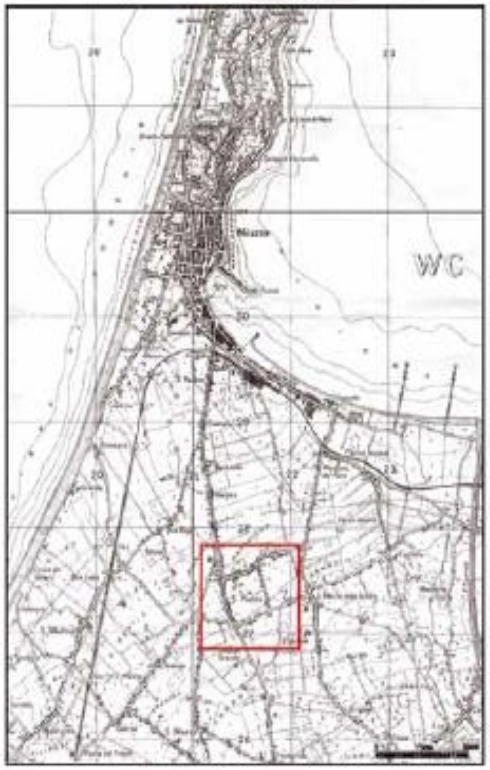
		TOT 50	**TOT 30**	**TOT 10**

FIRST LESSON:
ARCHITECTURAL CONSERVATION STUDIO
Introduction. A brief guide to graphic representations

THE SURVEY



Milazzo (ME), Palazzo Spadafora.

La piana ed il promontorio.

Gli elementi principali che contraddistinguono il territorio milazzese si possono individuare nel promontorio e nella piana. Il primo costituisce un vero e proprio spartiacque tra i due golfi che segnano a nord i confini naturali.

Ortofoto che mostra la struttura del territorio sulla direttrice di espansione che dal nucleo principale si chiude verso la piana, si innesta la strada su cui si affaccia Palazzo Spadafora.

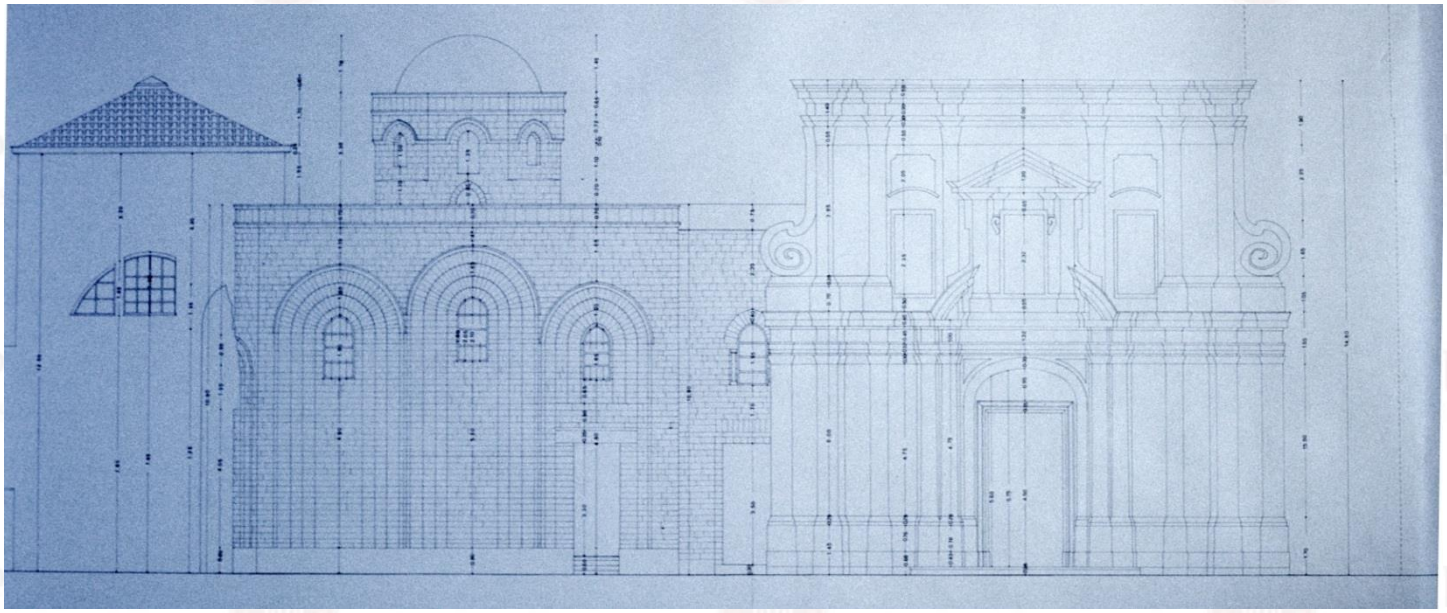
L'ortofoto evidenzia le caratteristiche del tessuto urbano in cui si trova Palazzo Spadafora l'impianto urbano mantiene ancora gli stessi tracciati del XVIII e del XIX secolo.

Fornaro A., *Milazzo studio di Geografia urbana, in Atti del XVI congresso geografico italiano. Padova Venezia 20-25 aprile 1954*. Faenza 1953, p. 18.

THE GEOMETRIC-DIMENSIONAL SURVEY

The geometric-dimensional survey should begin to represent the architectural situation, indicating the measurements in the plan, the elevation and the sections. The geometric-dimensional survey is generally carried out at a scale of 1:50, while the scale of 1:100 is used only to depict very large architectural complexes.

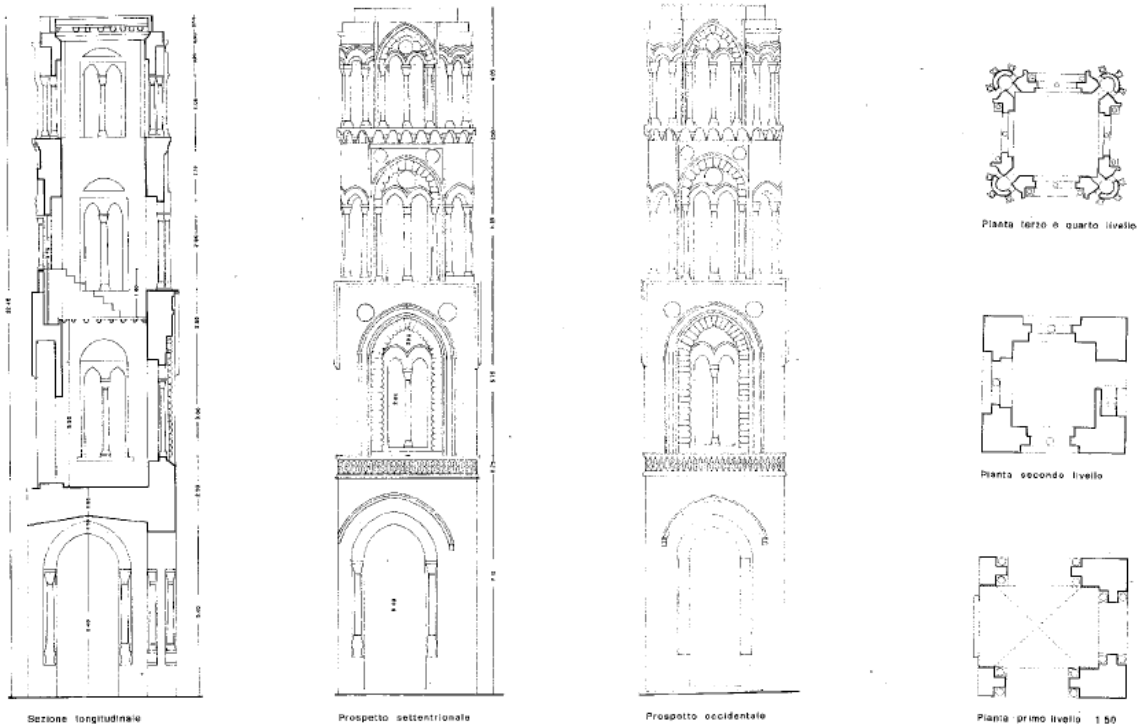
The graphic representations must be the following: plans of the various levels, including any subterranean levels, the coverings and the lofts, where they are inspectable and surveyable; the elevations, with at least two sections: a longitudinal and a transversal, picked as the most significant ones: and lastly any architectural details agreed on wit the supervisors.



Palermo, Church of Santa Maria dell'Ammiraglio. Geometric-dimensional survey, northern elevation (survey by CB 1985-86)

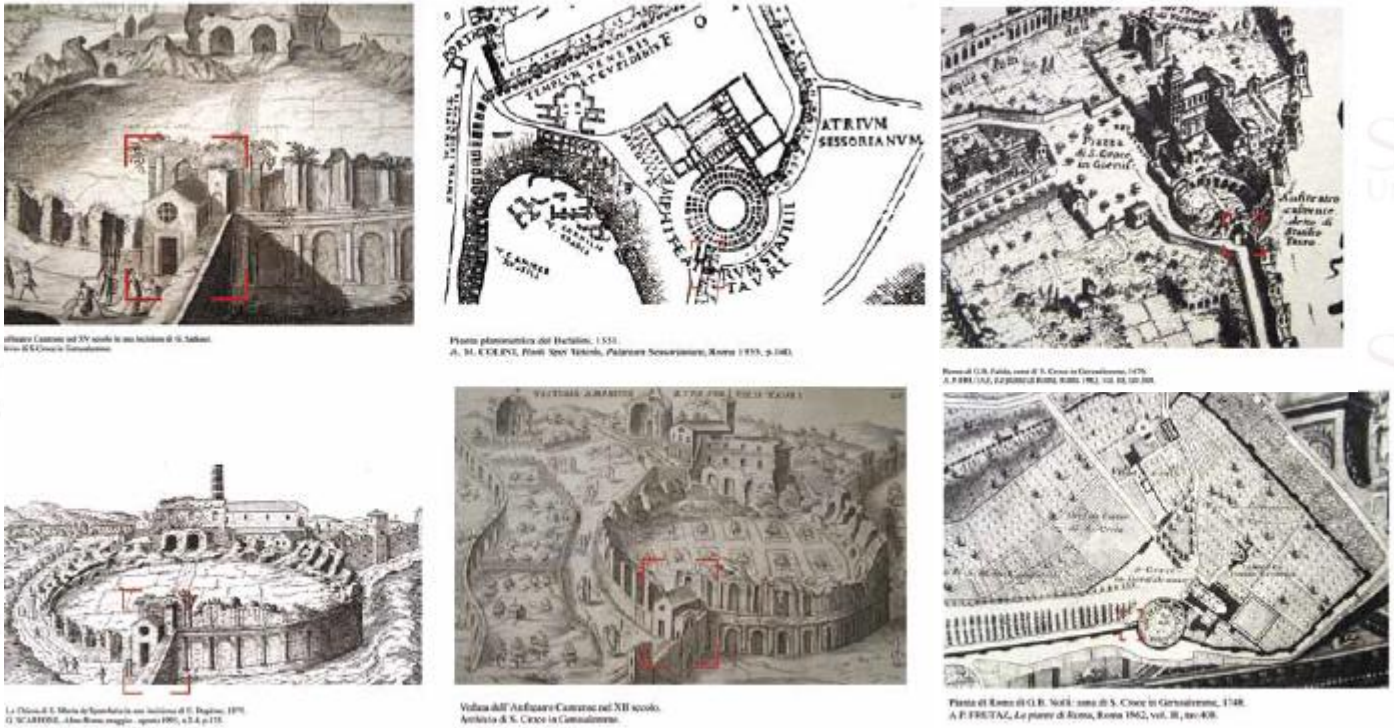
THE ARCHITECTURAL SURVEY

The graphic representations of the architectural survey are usually at a scale of 1:50.
The planimetric representation and that of the elevations especially permits the analisys of masonry structures, of the architectural language, so as to allow the synoptic understanding of the edifice, without losing oneself in the details on a first look.



Palermo, Church of Santa Maria dell´Ammiraglio. Architectural survey of the bell tower (survey by CB 1985-86)

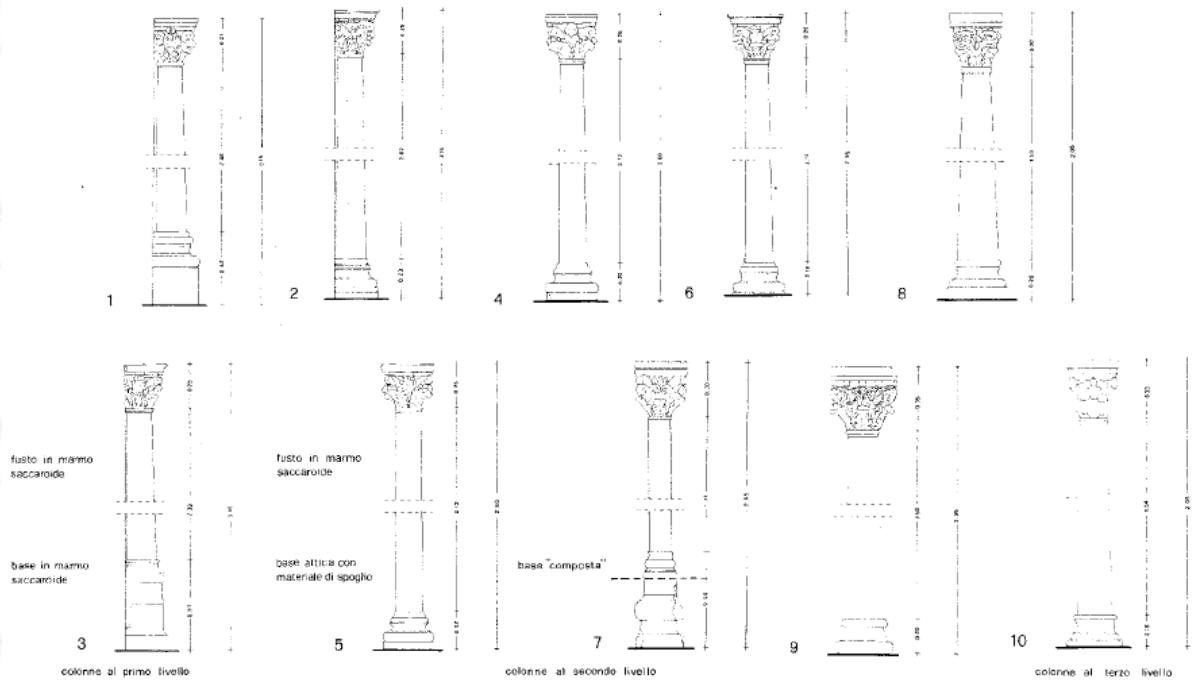
THE HISTORICAL-CRITICAL ANALYSIS



Rome, Church of Santa Maria del Buon Aiuto.

THE HISTORICAL ICONOGRAPHY

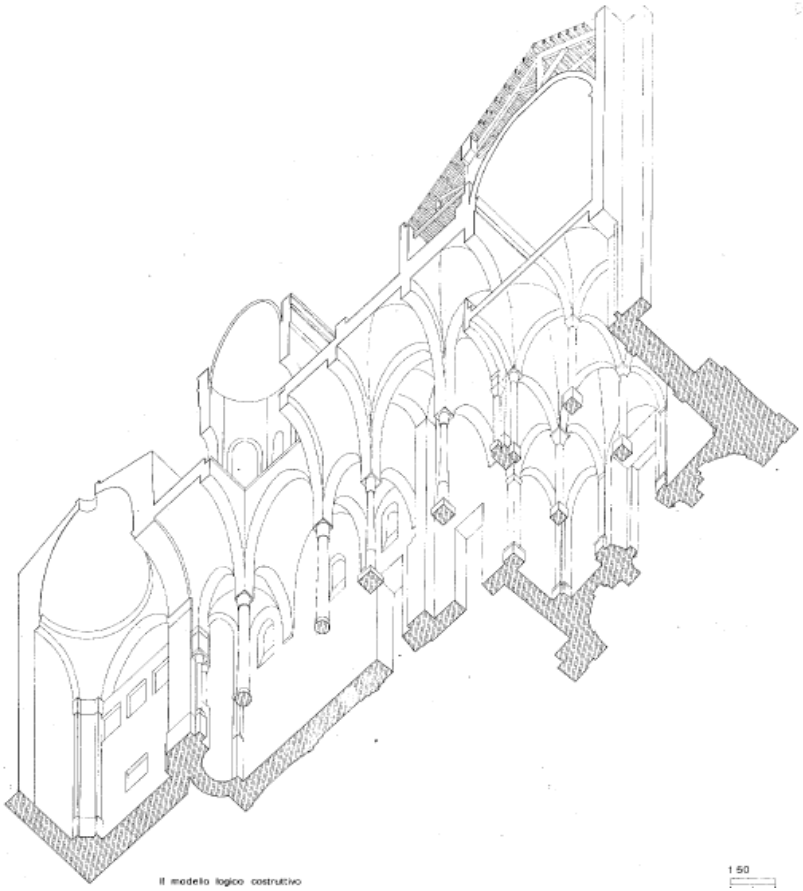
The investigation beings with the historical iconography, through the study of the genesis and the initial process of the production up to the most recent interventions and, sometimes, reconstruction hypotheses of the past, according to the manner of the period.



Palermo, Church of Santa Maria dell´Ammiraglio. Analysis of constructive features. The bell tower and the theme of the columns. (survey by CB 1985-86)

THE ANALYSIS OF THE CONSTRUCTIVE FEATURES

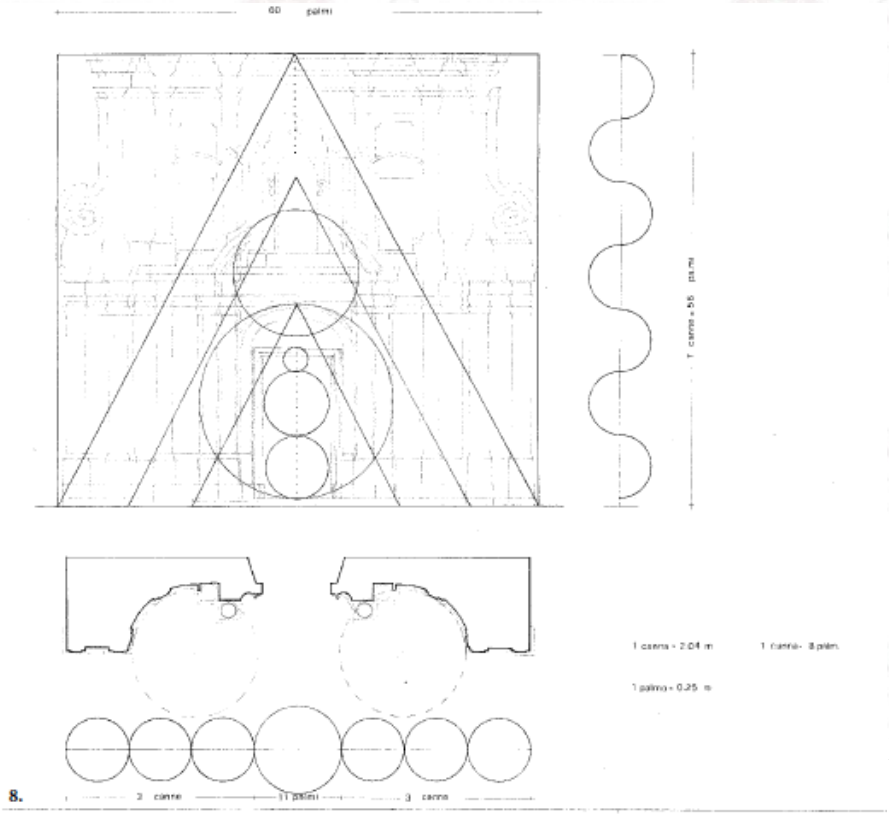
The process continues with the architectural desciption of the ensemble of the construcion and with the direct analysis, at the appropriate metric scales, of the constructive features. This also takes place through the opportune references to previous and coeval episodes in the history of the architecture and of the artistic expressions.



Palermo, Church of Santa Maria dell'Ammiraglio.
The logical-constructive model
(cutaway drawing by CB, 1987)

THE LOGICAL-CONSTRUCTIVE MODEL

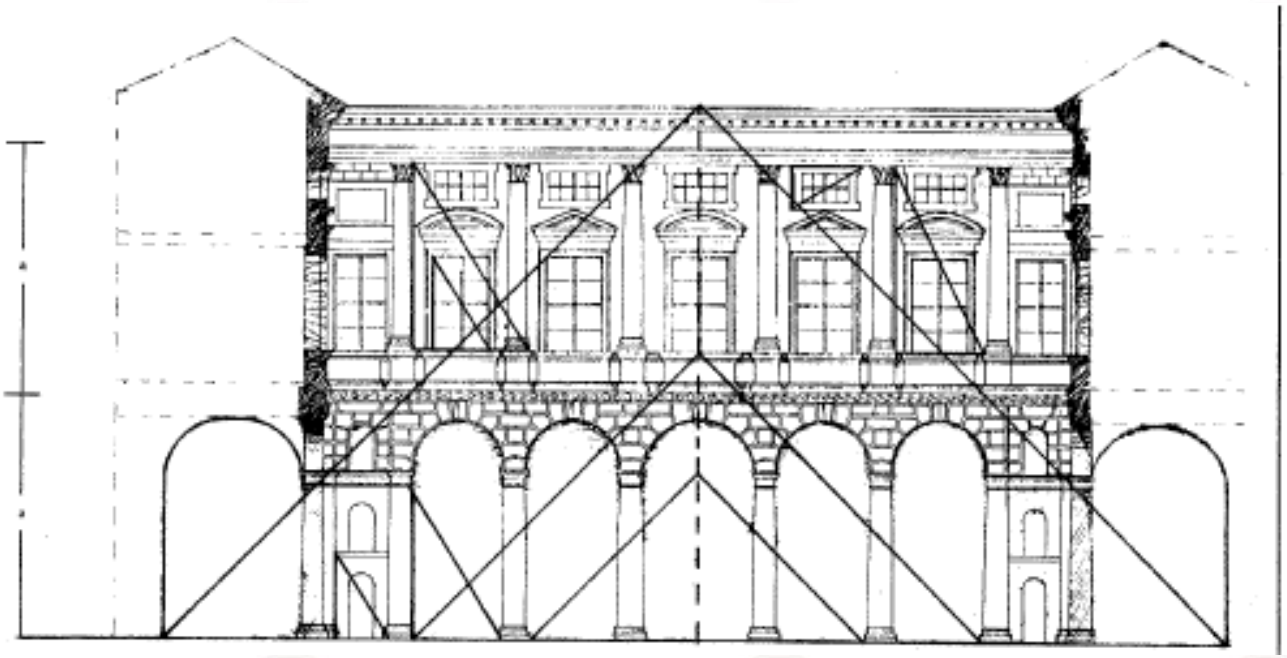
Certain architectural structures, for example, are based on the column-arch constructive model, as in the cases of lowered cross vaults which sometimes support choirs above them. The vaults are constituted in their upper part by a structure of wooden beams, suitably modelled, to whic are nailed panels that support the layer made of eads plaster, the layer of plaster and the final fresco. Above, the covering system is usually composed of a sloped roof made using the traditional method of trusses, secondary beams, boards and tiles.



Palermo, Church of Santa Maria dell'Ammiraglio. Metrological-proportional analysis (diagram by CB, 1987)

METROLOGICAL AND PROPORTIONAL ANALYSIS

Among monographic sections, the metrological and proportional analysis is favoured, so as to identify geometric lines of modularity or of proportioning and recognise constructive reprisals whic could otherwise be incomprehensible. Also to be observed is the presence of any corrections of optics or perspective.



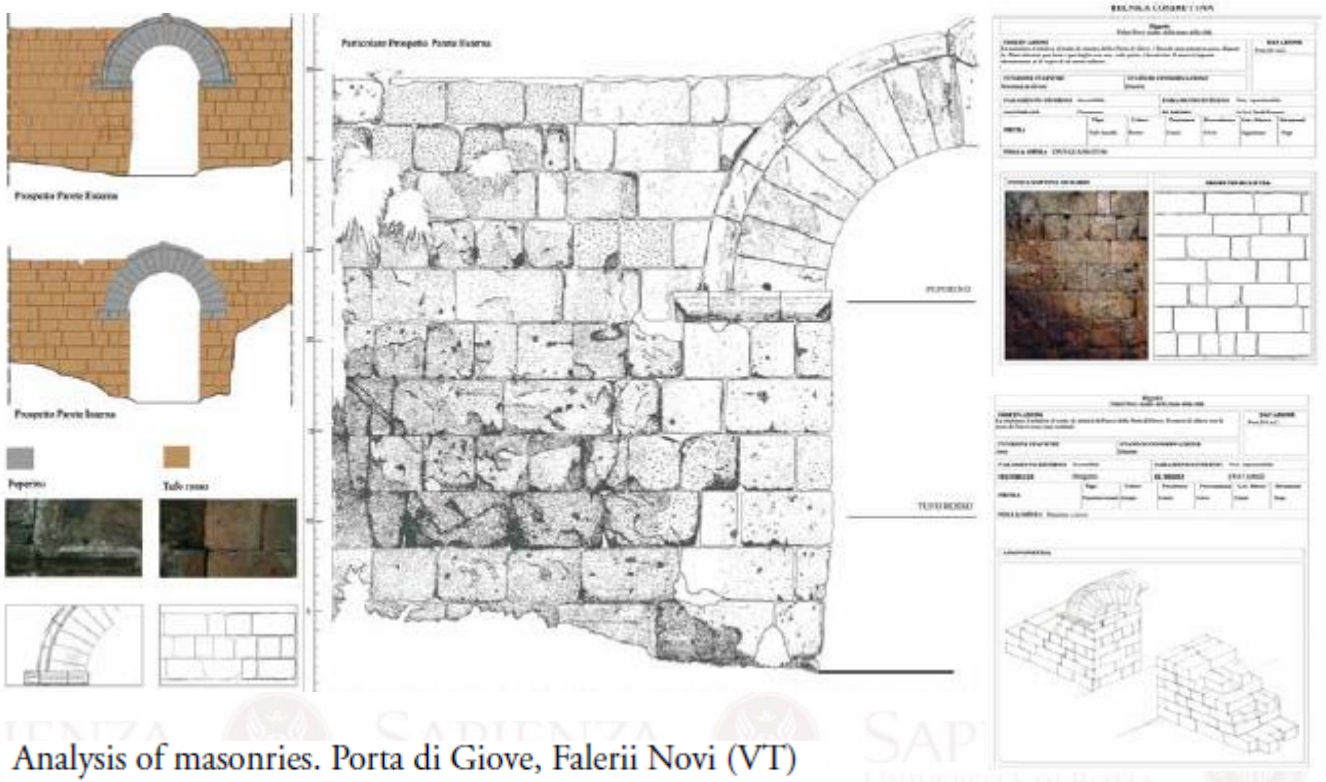
Landshut, Stadtresidenz, courtyard, proportional reflections (diagram by the CB, 1986 e 1989).

THE THEME OF THE LOGICAL-FIGURATIVE MODEL

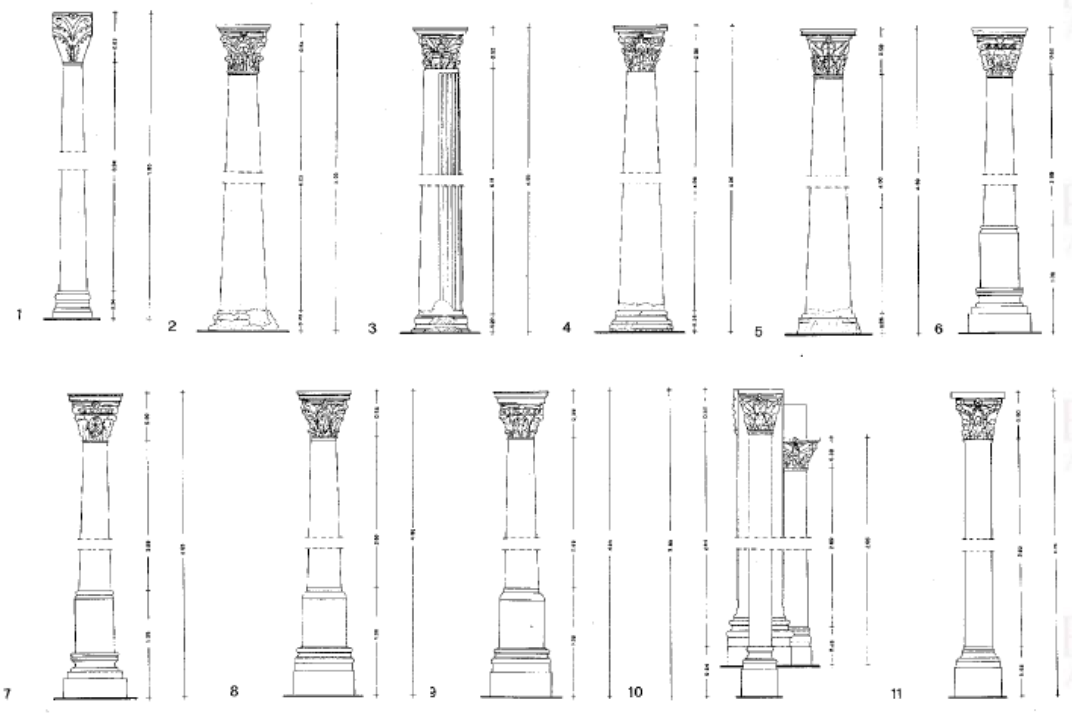
In the framework of historical-critical analysis, in the presence of particular architectural expressions, the study can highlight the figure of the equilateral triangle determining the length and the height of the main scansions of the edifices; once again, the ‘symbol of the divine law regulating the universe’ is present.

ANALYSIS OF MASONRY

Particular attention is paid to the studying, the surveying and analysing of the various masonries constituting the existence being examined. The analysis begins with the identification of the materials costituting the masonries constructed in the different historical periods the architectural complex being examined was construced in.



Analysis of masonries. Porta di Giove, Falerii Novi (VT)



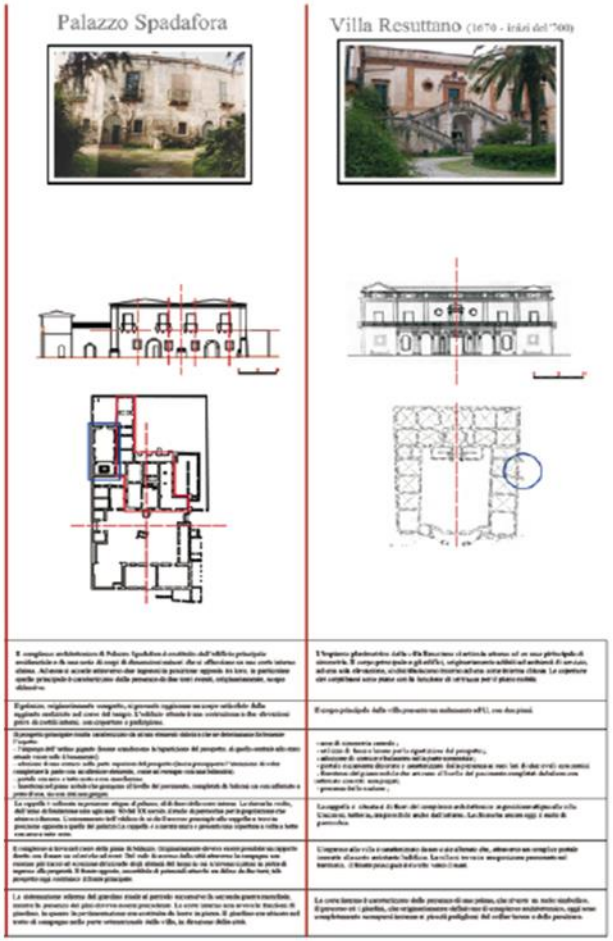
Palermo, Church of Santa Maria dell'Ammiraglio.
Columns with reused materials (survey by the CB, 1985- 86).

SPOLIA AND REEMPLAYED

The reemplayed of existing elements will be an eventual in depth examination to be carried out if the building possesses such artistic expressions. Such re-use can be found in all genres of art, from architecture to sculpture, to the minor arts.
In re-use, the ancient element, from being purely antiquarian, becomes a historical object and, because of this, it must also be evaluated from a bistorucal perspective.

COMPARISONS: ANALOGIES AND DIFFERENCES

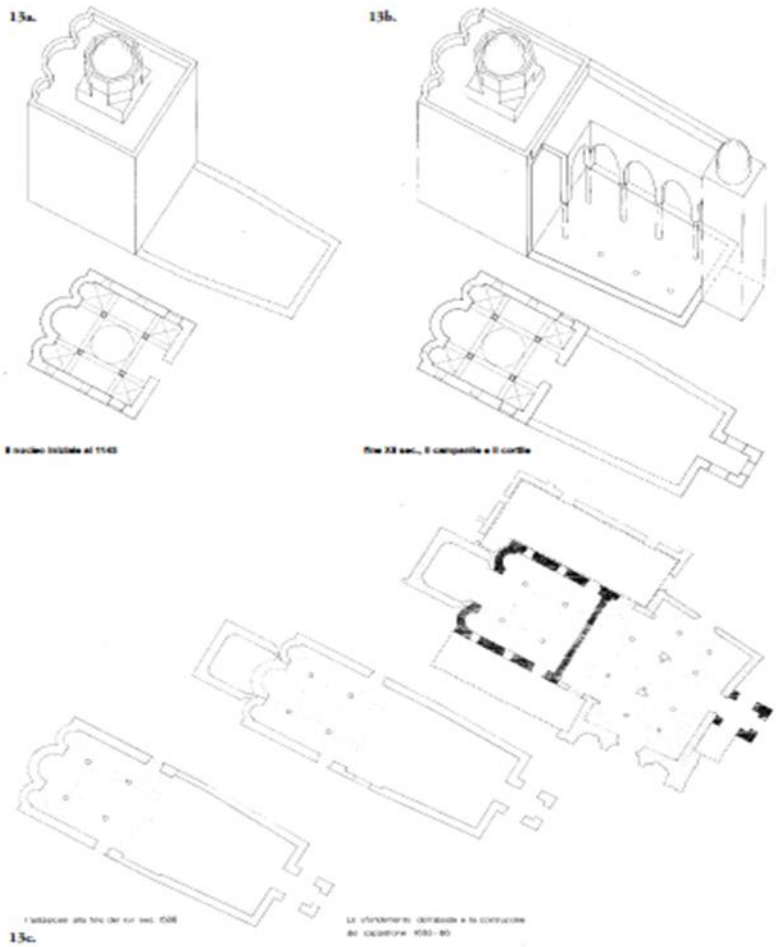
The study is aimed at understanding the cultural references. These can be carried out via comparisons with constructions in the same geographic area pertaining to prior and coeval realisations, or even by the same author.

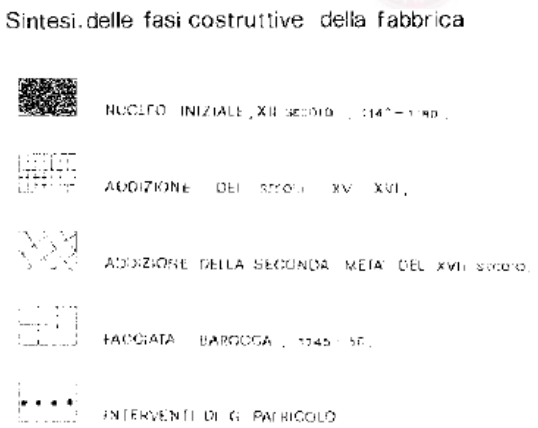


References and analogies. Milazzo (ME), Palazzo Spadafora.

READING OF THE ARCHITECTURAL ORGANISM: SYNTHESIS OF THE MONUMENT IN TIME

This consists in a series of graphic representations synthetically illustrating the historic processuality of the architectural organism starting from the documentation collected in the historical research and the survey.

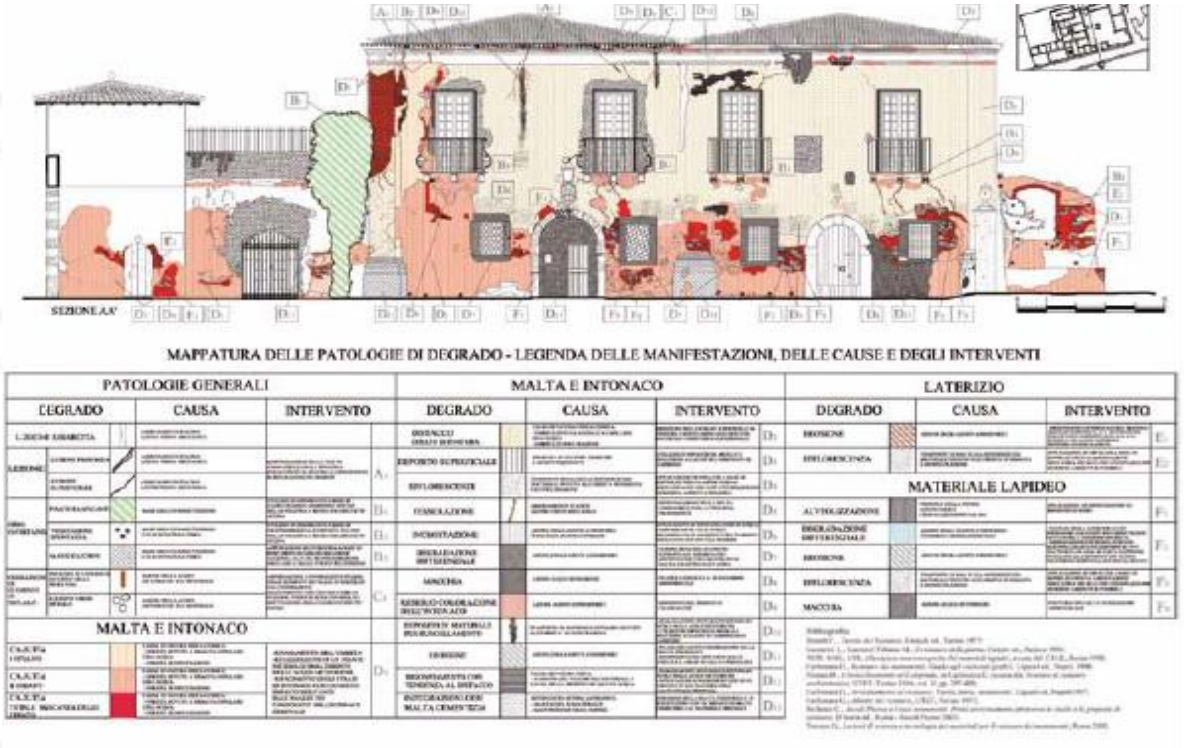




Palermo, Church of Santa Maria dell´Ammiraglio.
Synthesis of the monument over time (diagrams by the CB, 1985-86).

ANALYSIS OF THE DETERIORATION

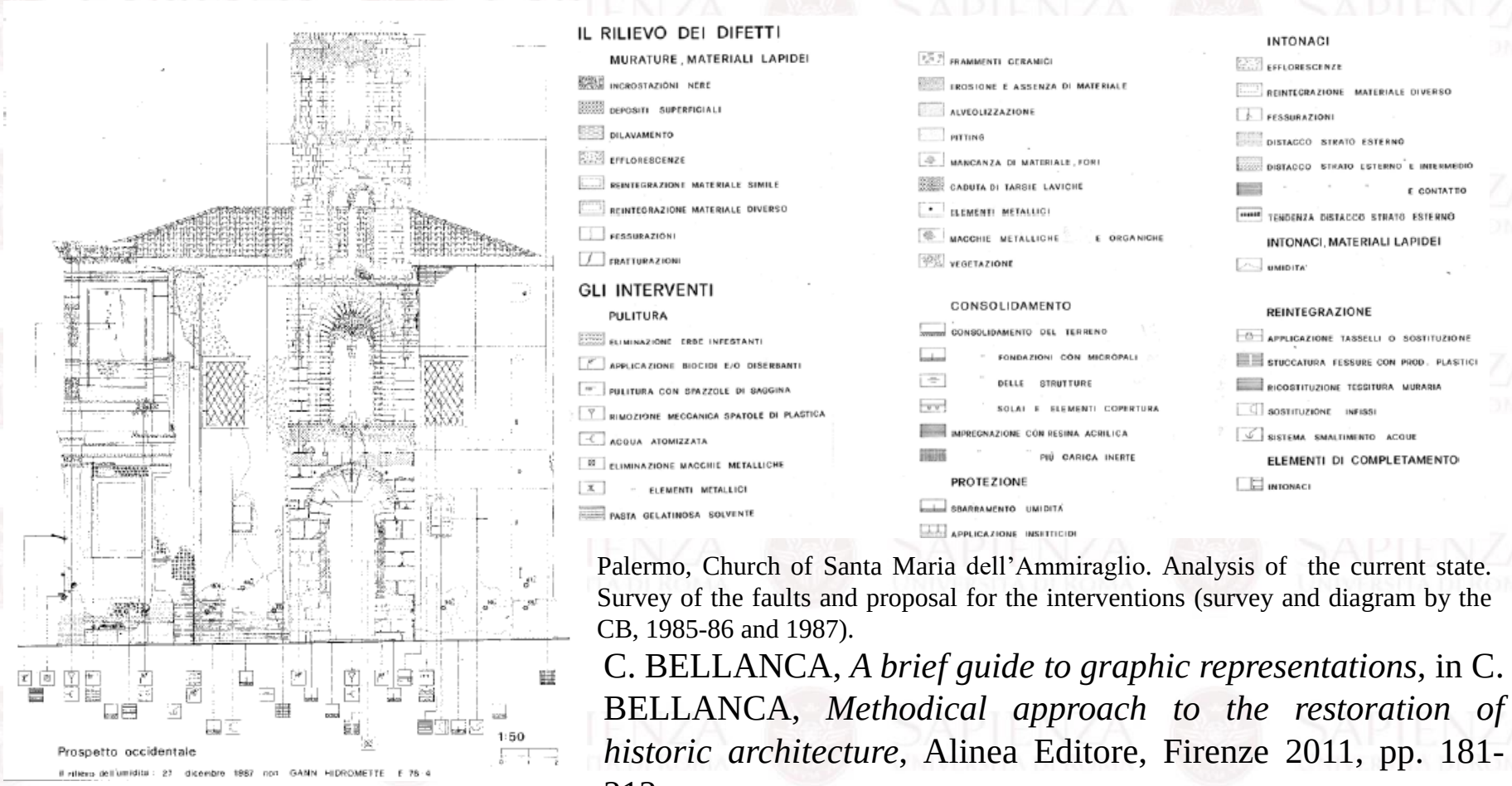
Specific graphic representations are expected on the structural reading and the overall systematic description of the cracks present, illustrated with attention for graphic comprehensibility. Special care should be had in the normalisation of the graphic representations with the apposite conventions, which have been codified in the Normal lexicon.



Analysis of the forms of deterioration in the current state. Milazzo (ME), Palazzo Spadafora.

PROGRAMME OF INTERVENTIONS

The intervention proposals are derived from the survey of the state of the defects (deterioration of the materials and disturbances in the structures) and delineate the operational procedures essential to conserving the architectural property examined (cleaning, consolidation, protection, reintegrations).



Palermo, Church of Santa Maria dell'Ammiraglio. Analysis of the current state. Survey of the faults and proposal for the interventions (survey and diagram by the CB, 1985-86 and 1987).

C. BELLANCA, *A brief guide to graphic representations*, in C. BELLANCA, *Methodical approach to the restoration of historic architecture*, Alinea Editore, Firenze 2011, pp. 181-212.

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