SURVEY AND GRAPHICAL REPRESENTATION IN THE ITALIAN PROTECTION POLITICS BETWEEN THE NINETEENTH AND THE TWENTIETH CENTURIES

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ABSTRACT

The protection of the historical-artistic heritage was an integrating part of the Italian post-unification politics, at the end of the nineteen century. It was given such a great importance that a systematic and thorough catalogue was compiled, including all the objects of archaeological, architectonic and landscape importance spread all over the country. In addition to historical investigations - generally carried out by learned men, men of letters or artists - the surveys and the graphical representations of such objects played a fundamental role, especially since at that time photography was still little known and used. Therefore, both national and local protection authorities employed many technicians whose aim was to graphically reproduce what was meant to be protected. In this way, the graphical documentation became an essential element – together with written reports – for any plan of protection and conservation. On this basis, I analyze the various approaches to the problem of survey, both from a topographic perspective (representation of landscape and of entire territories, as well as of archaeological and urban sites) and from the point of view of the architectural survey (of monuments and ruins) on different scales, depending on what had to be underlined for the definition of conservation or protection strategies. This analysis is particularly important since –at least at the beginning – survey and graphical representation were the main, and almost exclusive, aspect of this huge process in which architects and engineers were involved. Only on a later stage they were recognized their autonomy in designing conservation plans.
The careful surveys, the refined graphical representations (from the landscape to the decoration details) greatly influenced the choice of what had to be protected or restored and offer, even today, a valid tool for an accurate knowledge of monuments. Moreover, they have acquired a great importance as historical documents, since they clarify the leading logic and the mechanisms of safeguard of the artistic and historical heritage that, starting from the Sixties of the Nineteenth century, Italy was about to catalogue and protect.
In this huge process, the existing techniques for survey and representation of landscape and architecture were modified so as to better fulfill the technical requirements related to the protection and the restoration of the historical, artistic and archaeological heritage.

METHODOLOGIES OF SURVEY AND REPRESENTATION

The indications on how the restoration of monuments had to be carried out can be found in the "Circular of the Italian Ministry of Public Education on the restorations of the monumental buildings" dating back to 1882, followed in 1883 by the "Voto sul restauro dei Monumenti" of the IV Conference of the Engineers and Architects[1]. After the choice of the objects to be protected or restored - made on the basis of indications and debates between the central and local Authorities devoted to the control - the relevant files were built including complete historical reports on the importance of the object to be protected and complex technical relations on its state of conservation. A fundamental role was then played by the archaeological drawings that, through a series of panels, were meant to demonstrate the advisability of protecting the monument for its documentation value, or of planning the restoration of buildings and ruins that, for their bad state of conservation, were in need of more or less urgent intervention. An analysis of the drawings and plans enclosed to the files of protection of the end of the nineteenth century (omitting those already widely documented, and cited in the history of restoration as examples of politics of protection and intervention carried out by architects and engineers over the whole country, e.g. Boito, Beltrami, D'Andrade, etc.)[2], shows that two categories of graphical works can be identified. The first includes those drawings that we can define "traditional", with planimetric indications, section and prospect. They represent above all the geometry of the building or monument, its size, sometimes its relationship with the urban context, and are mainly aimed at representing its formal aspect and highlighting its aesthetic value.
The second category includes drawings that can be defined "innovative" in the sense that their purpose is to graphically highlight the protection and restoration routes and the conservation techniques to be applied in the particular case.
This differentiation in the techniques of survey and graphical representation, as well as their refinement, was indeed caused by this new interest towards the safeguard of the national heritage. As a matter of fact, in some cases, the necessity of interventions of clearance (from successive additions and stratifications) and restorations, imposed not only the representation of the "present state" but also of the "normal state", i.e. the original one, as stated in the ministerial Circular:
"... Therefore it is necessary to determine exactly what must be conserved, distinguishing what has real importance for the history or the art and must be respected, from what does not have such importance and can be varied or suppressed; And, comparing the normal state with the present one, it is necessary to focus on the differences and suffered damage, that is corrosion, demolitions, additions, reconstructions, variations of stability that have altered the economy of the monument "[3].

[1]L. GUERRIERO, (edited by) Materiali per la storia della conservazione dei monumenti dal XIV al XIX secolo, Edisu Editore, Napoli 1992, pp.69-73.
[2]Among the many books on this topic, see: S. CASIELLO, (edited by) La cultura del restauro.Teorie e fondatori, Marsilio Editore, Venezia 1997. G. CARBONARA, Avvicinamento al restauro,. Teoria, storia, monumenti, Liguori Editore, Napoli 1997. C. DI BIASE, (edited by) Il restauro e i monumenti, Libreria Clup, Milano 2003. F. LA REGINA, Come un ferro rovente. Cultura e prassi del restauro architettonico, Clean Editore,Napoli 1992.

For this reason, it was necessary to create and establish a system of graphical representation that could allow indicating (in watercoloured panels) the various stratifications, the incongruous parts to be removed, the parts to be conserved, those to be added in order to achieve a complete restoration of the original look of the monument. For each monument, all these indications were contained in a series of "thematic tables" with a twofold purpose. On one side, they had to supply an exhausting documentation of the building before the intervention, as a historical document to be registered in the archives of the Ministry. On the other side, they were useful instruments on the building yard, providing indications on how the work had to be carried out.
For this purpose, they needed to be clear and comprehensible to the workers, and they had to report the various phases before, during and after the restoration.
Another class of drawings, instead of focusing on the single building or monument, represents the landscape as a whole, the territory, the archeological sites and the urban context. Beyond their technical interest, these representations demonstrate the beginning of the interest of the Italian State in the safeguard of the landscape. As a matter of fact, these extremely refined topographical representations, together with the written reports, were entrusted with the task to convince the protection Authorities of the advisability of the safeguard intervention. The idea of safeguarding an entire territory, with peculiar aesthetic and historical features, found in these drawings a powerful support. The more they emphasized the aesthetic aspects (e.g. the presence of rivers or particular naturalistic features; the arboreal species related to the orography; the places of lookout from which one could enjoy exceptional panoramas; the presence of ruins and buildings particularly related to the national tradition), the more they had chance to succeed in convincing the national or local Authorities about the necessity or the opportuneness of a certain intervention. In these cases, the files enclosed topographical representation indicating the boundary of the respect area and a series of thematic tables with the details of the buildings included in the area, their state of conservation, the possible restoration works. Among the many examples, let me cite the file for the safeguard of the Gran San Bernardo, which includes a topographic map 1:50 000 indicating the boundary of the area to be protected, the technical drawings for the works necessary to reinforce the ground and ensure the safety measures, and a series of panels devoted to the description of the peculiarities of the "Plan de Jupiter", with the indication of its orographic features and of the archeological ruins present in it[4]. In the case of archeological sites, the idea of a safeguard extended to the whole site (and not circumscribed to the single archeological find) began to be proposed, even considering a system of interconnected archeological areas. This led to the necessity of representing the geographical relationship between these areas (e.g. the roads connecting them), and of reporting some aspect that, although marginally, were related to the safeguard intervention, such as for example the maps with the indication of the various estates and, eventually, of the needed expropriation orders (compulsory purchases for the common good). One of the first examples of this kind is that of the files for the safeguard of the north of Campania, where the institution of an archeological park was proposed, extended from the coast between Minturno and Gaeta to the hinterland, reaching Castelforte, Arce, Roccasecca, Isola Liri and Sora[5].
At the same time, the documentation enclosed in the files for the safeguard of antiquities could not neglect the more traditional aspects, e.g.: the geometrical survey of the ruins, underlining their aesthetic-formal value; the architectural and decorative details, such as mosaic flooring, fresco traces, plastic elements and building techniques. Among the many examples of documents of this kind, it is worth mentioning those of Aosta antiquities[6], of Capua findings (often accompanied by casts made by calcography)[7], of Atina and Castelforte, with watercoloured drawings indicating the materials of the tesserae in the roman mosaic flooring[8]. Moreover, the proposed restoration strategies often needed thematic panels on the state of conservation of the buildings and of their elements, while the protection plans required drawings of the exposed parts of the monuments as well as of their parts hidden by successive buildings and additions that had to be demolished. It was thus necessary to graphically reproduce the monuments and also to indicate their stratification, the additions to be removed and the integrations necessary to rebuild (as far as possible by *anastilosi*) the original look of the monuments themselves. The most complete documentations of this kind are those related to the clearance restoration of the Roman theatre of Benevento[9] and of many monuments in Sicily[10], among which the Greek-Roman theatre and the odeon of Taormina[11]. The same happened also for middle-age and modern monuments: the original parts had to be individuated and freed from successive stratifications. And also in these cases it was necessary to report all the phases before, during and after the restoration work. The drawings for the restoration of the Castello delle Pietre in Capua, and of Pier delle Vigne's house in Caiazzo, Campania, are particularly interesting in this sense. In both cases, the panels representing the "present state" are accompanied by drawings representing the presumed "normal state" – actually

[3] L. GUERRIERO, (edited by) Materiali per la storia della conservazione dei monumenti dal XIV al XIX secolo, cit. p.70: "Per la qual cosa è d'uopo che, distinguendo quanto ha vera importanza per la storia o per l'arte e deve essere rispettato, da quanto non ha tale importanza e può essere variato o soppresso, si stabilisca esattamente tutto quello che deve essere conservato; e confrontandone lo stato normale coll'attuale si mettano in evidenza le differenze ed i danni sofferti, cioè le corrosioni, le demolizioni, le aggiunzioni, le ricostruzioni, le variazioni di stabilità che hanno alterato l'economia del monumento"

[4] Archivio Centrale dello Stato, Ministero della Pubblica Istruzione, Direzione Generale Antichità e Belle Arti, I versamento, b.161 ff. 336-9-1 e 336-9-2

[5] E. ROMEO, Tutela e restauro del patrimonio classico tra archeologia e "modernità", in De Venustate et Firmitate, Celid Torino 2002, pp.105-125.

[6] Archivio Centrale dello Stato, Ministero della Pubblica Istruzione, Direzione Generale Antichità e Belle Arti, II versamento, II serie, b.504, ff. 5487 e 5490.

[7] Ibid, I versamento, b.363, f.1.

[8] Ibid, II versamento, I serie, b.43, f.773.

[9] L. GUERRIERO, La tutela dei monumenti a Benevento e l'attività della Commissione conservatrice provinciale: 1860-1915, in G. FIENGO (edited by) Tutela e restauro dei monumenti in Campania: 1860-1900, Electa Napoli, Napoli 1993, pp.35-80.

[10] F. TOMASELLI, Il ritorno dei Normanni. Protagonisti ed interpreti del restauro dei monumenti a Palermo nella seconda metà dell'Ottocento, Officina Edizioni, Roma 1994. A. M. OTERI, Riparo, conservazione, restauro nella Sicilia orientale, Gangemi Editore, 2002

[11] Archivio Centrale dello Stato, Ministero della Pubblica Istruzione, Direzione Generale Antichità e Belle Arti, Vol. IV, (1860-1890), b.28, ff. 514 e 515.

Figure 1. Gran San Bernardo, Plan de Jupiter.
The three drawings show, at different scale, the area to safeguard: the whole site; the natural features; the archeological ruins in their context.

inspired to coeval monuments: the Pavia Castle in the first case, and Boccaccio's house in Certaldo in the second.[12]
The thematic tables enclosed in the "preliminary plans" are interesting as well. Once the restoration plan was approved, these drawings were meant to guide the work in the building yard. As a matter of fact, they included technical drawings highlighting the deterioration of single parts or structural instabilities. The panels reported, in different colors, and often in the greatest detail, the damaged parts to be replaced; the deteriorated parts to be conserved and protected with particular techniques; the well-conserved parts to preserve. In this respect, the drawings for the restoration of the façade of Palazzo Madama in Torino[13], and Palazzo Ducale in Venezia[14] are of particular interest.

Even more interesting drawings represent the phases of preparation of the building yard for structural restoration works. For example, they show the wooden frames for the provisional consolidation, or used to prop the buildings up during the dismantling and reassembling of architectural elements, as in the case of the restoration of the bell tower of the cathedral in Capua[15] and of the Benedictine basilica of Montecassino[16].
Other drawings are worth mentioning since they reported "innovative" solutions for some structural problems, with the graphical indication of the technique and of the materials used, with the specification of their mechanic properties. This is the case of the reinforcement of the Roman-age bridge Ronaco, in Sessa Aurunca,[17] or the restoration of the Arco Pelagico in Arpino[18]. These panels were very useful not only during the restoration work but also when a reinforcement of the ground or of the terracing was needed, without interfering with the "appearance of the monument", as for the church of S. Maria della Valle (Badiazza) in Messina[19] and the fortification on the mount Tauro, in Taormina[20].

[12] E. ROMEO, Trasformazioni di edifici capuani alla fine del XIX secolo in "Capys", 1993, pp.3-15.
[13] Archivio Centrale dello Stato, Ministero della Pubblica Istruzione, Direzione Generale Antichità e Belle Arti, I versamento, (1886-1897) b.817, f.1405.
[14] M. FRESA, Conservare, sperimentare, rinnovare. Il restauro dei capitelli del Palazzo Ducale di Venezia, in "Tema" n.2, 1994, pp. 23-27.
[15] Archivio Centrale dello Stato, Ministero della Pubblica Istruzione, Direzione Generale Antichità e Belle Arti, II versamento, II serie, b.437, f. 144.
[16] Ibid. b. 3 f. 124 (allegati)
[17] M. VIGO, Il mancato restauro del ponte Ronaco di Sessa Aurunca, in G. FIENGO, (edited by) Tutela … cit. pp.402-409.
[18] Archivio Centrale dello Stato, Ministero della Pubblica Istruzione, Direzione Generale Antichità e Belle Arti, II versamento, II serie, b.69, f. 798.
[19] A. M. OTERI, Riparo, conservazione, restauro nella Sicilia orientale … cit.
[20] Archivio Centrale dello Stato, Ministero della Pubblica Istruzione, Direzione Generale Antichità e Belle Arti, Vol. IV, (1860-1890), b.28, ff. 514 e 515.

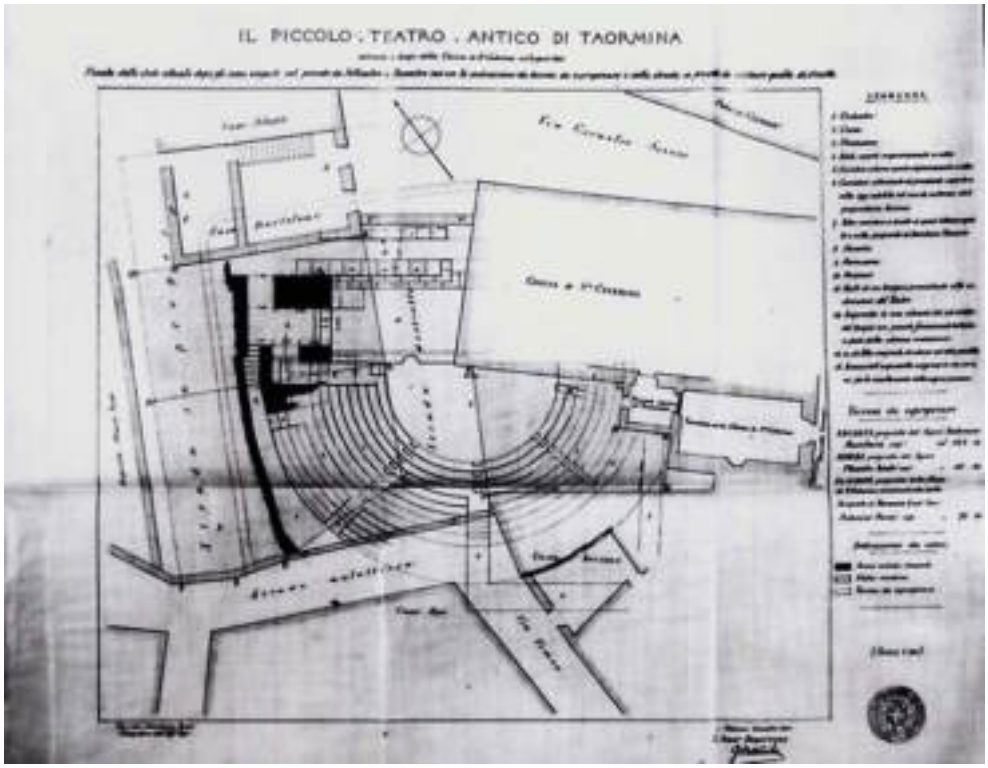

Figure 2. Taormina, Odeon.
The drawing, full of topographic information, shows the discovery parts of the monument, the part hidden by successive buildings and additions that had to be demolished.

A particular class of drawings represents instead innovative technical solutions used to protect the monuments, such as the placing of lightning conductors on top of towers, bell towers, cathedrals, castles. Let's cite the cases of the cathedrals of Messina[21] and Lucca[22] or the complex system used for the Roman Arco di Augusto in Susa[23] Archivio Centrale dello Stato, Ministero della Pubblica Istruzione, Direzione Generale Antichità e Belle Arti, II versamento, II serie, b.509, ff. 5547 e 5548.

In the seldom, particular cases where churches, convents or monasteries were to be transformed for a secular use, after the "second suppression of monastic orders", the documents enclosed in the restoration plan files represent buildings that are today completely unrecognizable. With the usual technique of the different colors, they show the building as it was before the intervention, the demolitions and the modifications made to turn it to a different use. They refer, for example, to churches converted in indoor market, as the church of S.Marco in Vercelli and the church del Carmine in Lucca; to chapels transformed in medical surgeries, as S. Luca in Lucca[24]; to conventes changed into hospitals, as in the cases of "Gesù e Maria"[25] and S. Patrizia in Napoli[26].

Very interesting, but for another reason, are the drawings concerning interventions in urban sites that are sometimes in striking contrast with the safeguard (at least, with the present meaning of this word). As a matter of fact the exaltation of the technological innovation as a tool to improve the functionality of ancient towns, the theories about public health , the industrial progress sometimes led to radical transformations of the towns and demolitions of entire areas in favor of a presumed "modernity" and a "false embellishment".

The creation of the post-unification Land Register was the basis not only for the identification of the monuments to be protected, conserved or restored, but also for the development of the first Plans of Urban development. These panels reported the "present situation", the kind of intervention proposed and the possible variations in the plan, and were often accompanied by a series of technical drawings with the indication of road sections, drainpipes, materials used. It is worthwhile to mention the interest in the improvement of the hygienic conditions and the consequent plans for new fountains, sewer systems, gas lighting systems for the streets of the town, as witnessed for example by the case of Carlentini[27].

As years went by, the number of drawings proposing the embellishment of towns with trees along the streets, gardens, street furniture, street lamps, and so on was growing more and more. Finally, there were all the planimetric representations used for demolitions in the historical areas, enlargement, addition of new peripheral areas, creation of avenues and straight stretches

[21] Ibid. b.478, f.466.

[22] E. ROMEO, Fonti dell'Archivio Centrale dello Stato sui restauri nel territorio di Lucca (1860-1960), in M.A. GIUSTI (edited by) "… nunc in pristinum decorem restituit". Contributi sul restauro a Lucca nell'Ottocento, Celid Editore, Torino 2000, pp.95-98.

[24] Ibid. Divisione I (1908-1912), b.122, f.3.

[25] R. PICONE, Da conventi ad attrezzature per la nuova città borghese: il caso del Gesù e Maria di Napoli, in S. CASIELLO (edited by), Falsi restauri.Trasformazioni architettoniche e urbane nell'Ottocento in Campania, Gangemi editore, Roma 1999, pp.33-46.

[26] E. CARELLI, Trasformazioni e restauri nell'ex-monastero di S. Patrizia a Napoli in S. CASIELLO (edited by), Falsi restauri.Trasformazioni architettoniche e urbane nell'Ottocento in Campania, cit. pp.47-60.

[27] Archivio Comunale di Carlentini, Carte della città:1860-1890 (non inventariate).

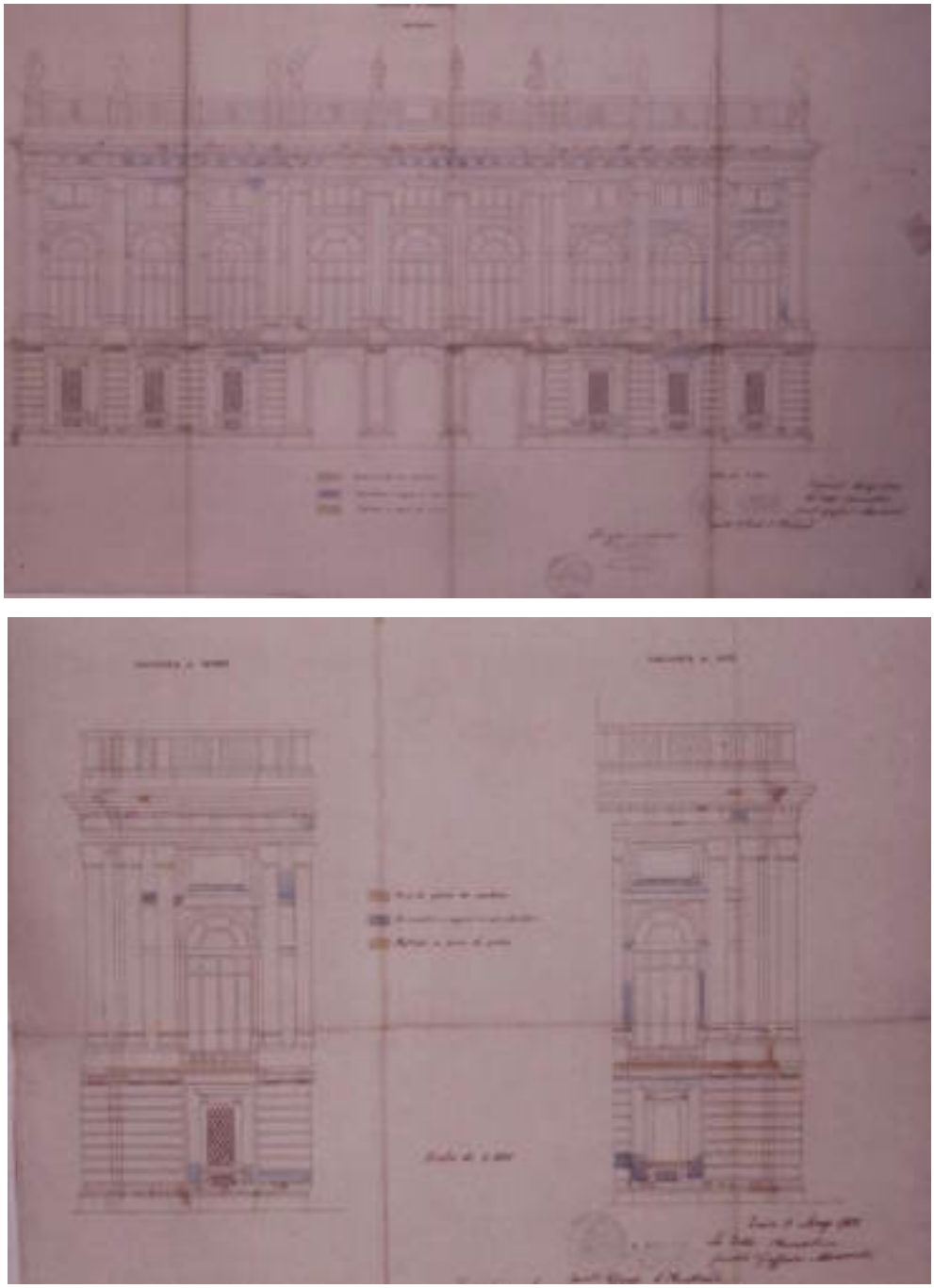

Figure 3. Torino, Palazzo Madama.
The drawings show the conservation state of the facades: the deteriorated parts to be protected, conserved or substituted.

connecting the new railway stations and the old town centre. An example is given by the drawings enclosed to the plans for the realization of the ring road and the arrangement of the ramparts and the gates of the town of Lucca[28]. Although rather seldom, photographic survey was used as a support to the proposals of intervention, witnessing the will to improve the surveys and the traditional graphical representations in favor of a more immediate visual communication, easily comprehensible to everybody and not only to experts working in the field. In these cases, the photographs were partly retouched and integrated with drawings and were meant to replace the usual drawings of the state of the building "before" and "after" the intervention. A typical example of this kind can be found in the documentation of the restoration of San Michele in Foro, in Lucca[29].

Today, all this graphic and photographic documentation is mainly kept in the Archivio Centrale dello Stato (Central National Archive)

[28] E. ROMEO, Tutela e conservazione delle mura di Lucca tra Ottocento e Novecento, in M.A. GIUSTI, (edited by) Le mura di Lucca. Dal restauro alla manutenzione programmata, Alinea Editrice, Firenze 2005, pp.109-130.

[29] M.A. GIUSTI, I restauri, in M.A. GIUSTI (edited by) "… nunc in pristinum decorem restituit". Contributi sul restauro a Lucca nell'Ottocento, Celid Editore, Torino 2000, pp.43-46.

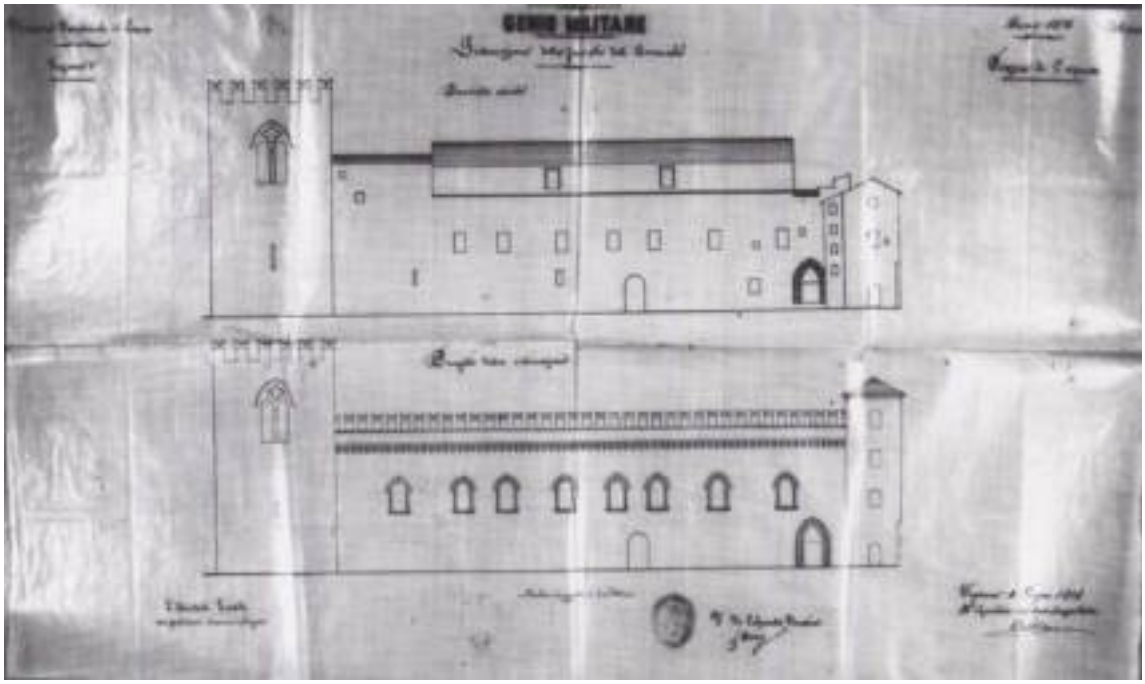

Figure 4. Capua, Castello delle Pietre.
The monument is represented, in the same panel, before and after the restoration works.

or in the archives of local (provincial or municipal) protection authorities. It is thus recognized a fundamental importance, first of all because it gives a description of monuments that are today completely different from what they looked like in the nineteen century; second, because it represents the culture and the safeguard/restoration praxis between the end of the XIX and the beginning of the XX century. Some of these drawings were actually used for the carrying out of the proposed interventions in these years. Others, instead, were to become the cartographic and graphical basis for the process of safeguard and restoration laid down in the Laws n. 1089 and n.1497 of 1939. Finally, other files provided a unique help during the post-war reconstruction. They allowed locating the cadastral numbers and going back to the owners of the various estates, or carrying out the planned but not-yet-performed transformations that were indeed accomplished in the 40's and 50's of the twentieth century. Finally, they were the basis for the reconstruction of those monuments, already restored at the end of nineteen century and destroyed during the Second World War.

In the end, let me say that these drawings represent a culture of the survey and of the representation that is disappearing, as it is more and more replaced by new methods and systems based on computer and data processing. These methods, although much more powerful and easy-to-use with respect to the traditional ones, leave apart a series of preliminary and intermediate phases of data acquisition and data transfer such as the real life copies, the sketches of the whole and of the details that help in deeply understanding the nature of the object to be surveyed and represented. Hence, the technical and artistic skills as well as the personal interpretation are given less and less importance, while the use of advanced technology is emphasized. In spite of the undeniable advantages of these new methods in terms of speed and accuracy, I think it should be borne in mind that no computer software can replace the understanding of the architecture as a whole and in its particulars, as well as of the relationship between the town and its single architectural components, or between a territory and its landscape and natural aspects, that are well represented in these apparently obsolete drawings.

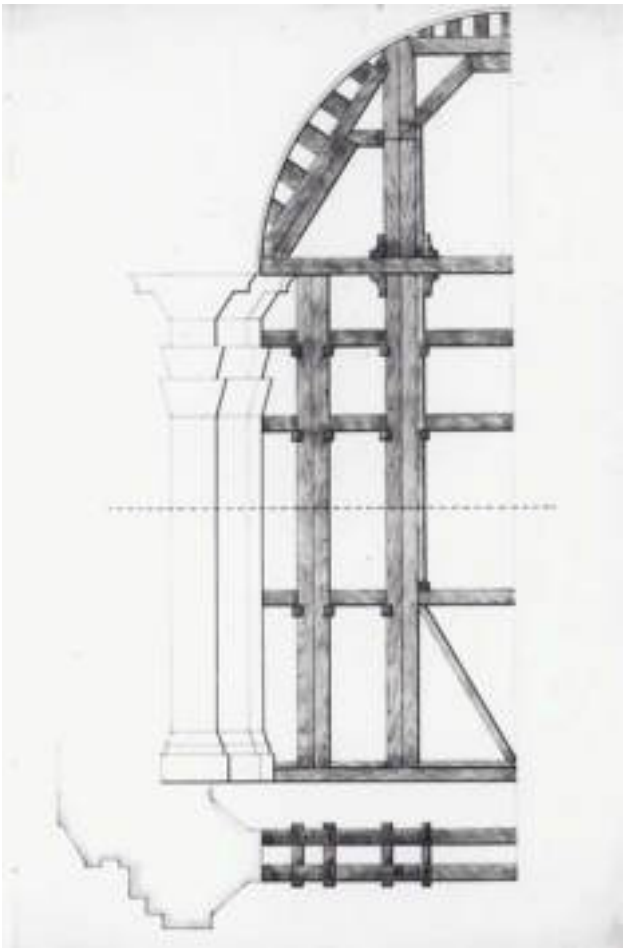

Figure 5. Montecassino, Abbazia benedettina.
The drawing represent the the wooden frames for the provisional consolidation..