

*Proceedings of the 4th Biennial of
Architectural and Urban Restoration, BRAU4
host of the Itinerant Congress
Hidden Cultural Heritage: Under Water,
Under Ground And Within Buildings
15–30 April, 2018.*

The Charm of Decay of Masonry Buildings

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Abstract

The fascination that exerts on the observer, an old masonry building, monumental or of minor architecture, reduced to the state of ruin, is the charm of its re-acquired nature of only form and matter. Stripping the building of all its completion works (covers, various coatings, plants, etc.), losing the function for which it was designed and realized, returns it to its simply formal expression, that is to say it has become pure architecture, an object now considered for what it is, and not for what it serves or served. It is thus discovered that the vestiges of such disused and degraded buildings are immortal, outside of the rules, outside of the flow of events. And this is their charm. . .

When the use of a building is exhausted and the building is almost in ruins, we can now perceive the wonder of its birth. It highlights the constructive rules with which it has reached its static and/or dynamic equilibrium, the materials with which it was made and their function.

The need to re-evaluate the importance of material degradation for conservative and restorative purposes arises also from the new concept of “architectural good”, which has been shaped by a new vision of history, not in an idealistic sense referring only to the crucial events, but more intricately understood, open to the study of society as a whole and also attentive to aspects of material culture.

Key words: Degradation, Masonry Ruins, Reuse

1 On the degradation of the finitures of masonry buildings

Degradation in its many material forms and its gravity has been dealt with by experts from different disciplines, from historians of architecture and restoration to physicists and chemists, each of them in a different way over time, while the engineers responsible for the interventions calibrated the requirements of the restoration works to the technological discoveries of the moment and the dictates of the International Restoration Cards.

In this brief exposition of the degradation of masonry buildings, I will try to narrow the subject to some aspects only, namely the degradation in its relation to time and the territorial and urban context, distinguishing between monumental buildings and those of

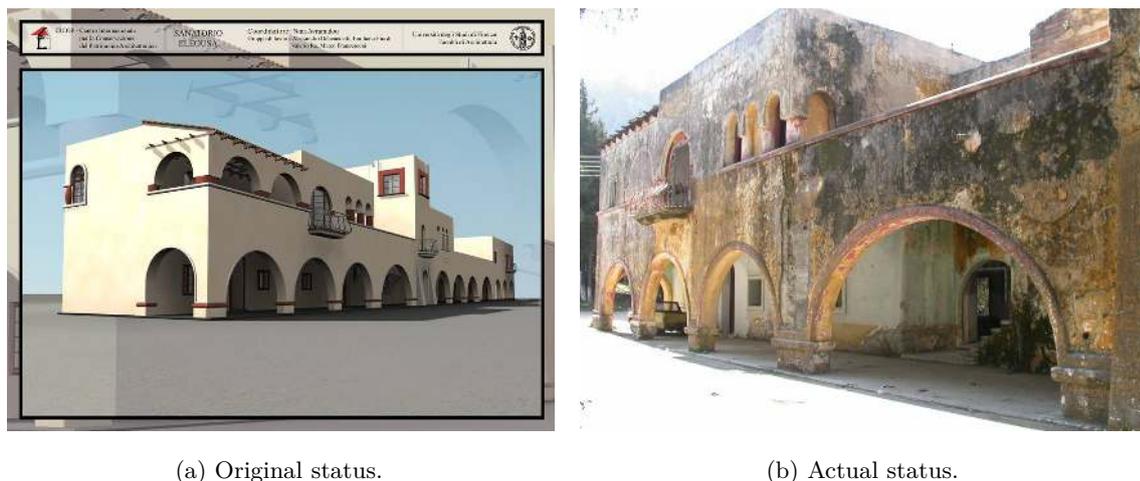


Figure 1

lesser interest, historical and artistic, and between those in an advanced state of degradation but still recoverable, and those in a state of ruin.

To better illustrate, I will outline some significant examples that I have personally worked on in the course of my professional life and research. The main objective of this short discussion is to raise interest in codifying the various forms of degradation based on multidimensional criteria including the aesthetic perceptual value for those who observe degraded architecture before and after recovery. It can be a recoverable construction functionally with non-invasive interventions and limits in costs, or a non-recoverable construction for a similar or different use, if not with excessive costs, but which, however, retains its supporting structure in good condition.

When the use of a building ends and the building becomes a ruin, an observer can perceive the wonder of his birth. It highlights the constructive rules with which it has reached its static and/or dynamic equilibrium, the materials with which it was made and their function.

This, of course, can also be found instrumentally, with targeted diagnostic investigations, but these are rarely non-destructive and require interpretations of the instrumental data of highly qualified people.

A highly degraded building with considerable loss of external and internal finitures, but which did not reach a degree of degradation that affected its technological and functional recovery, also facilitates the cognitive work of degraded construction, that is, the residual capacity of materials and structures.

As an example, I mention the former sanatorium of Eleousa, in Rhodes, a colonial building of the 1930s for which I was assigned the project of restoration and re-qualification (unfortunately not yet realized), Figure 1a.

The building arouses considerable interest in those who look at it, and it is also possible to enter it as its structure is not yet dangerous, Figure 1a and Figure 1b (original and actual view). The overlapping of colored wall layers mixed with lichen colors creates fascinating pictorial effects. It is possible to read its heavy but pretty structure, revealing where the plaster falls. This structure, like most of the other structures created by the same workers in the same period in Dodecanese (Greece), is beautifully obscured by plastering and



(a) Typology of masonry structure.



(b) Expansion joints between the adjacent bodies.

Figure 2

coatings, so it seems to be entirely made of stone masonry, Figure 2a; in fact, it is masonry reinforced with horizontal and vertical r.c. beams, and also stone walls with metal mesh.

The loss of the plaster has also highlighted the expansion joints between the adjacent bodies, Figure 2.

Interesting chromatic effects are also created by the falling plaster from the interior walls, which document the succession of maintenance interventions over time and the coloring techniques adopted in the past, Figure 3.

These effects can be framed in small portions, protected, for example, by glass, to reference the past and also to create pictorial frameworks.

The degradation followed by a partial collapse of public buildings, which are still waiting to be restored, stimulates creativity and allows for their use for recreational purposes: exhibitions, fairs of local advertising, dance clubs, etc. For example, in the Orvieto region, there was a request for proposals to create playgrounds for children dedicated to the famous writer Gianni Rodari. My proposal was to use the small country cottages that were semi-destroyed, for children's games (hiding places, scary places, etc. like those in various play grounds for children) without altering the location and appearance of the collapsed or unstable structures (beams, floors, roofs, walls) and, of course, eliminating their static precariousness with careful and difficult structural consolidation work. The addition of lights and cloths coming down from the roofs would complete the playful effects I had proposed.

For instance, spaces like those in Figure 4 and Figure 5 (former Pavlou Mela barracks, Thessaloniki, Greece) could become welcoming spaces during the summer.

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Figure 3: Multicolor effects of the interior plaster.



Figure 4: Former barracks Pavlou Mela, Thessaloniki, Greece.



Figure 5: Some internal spaces of former Barracks Pavlou Mela, Thessaloniki, Greece.



Figure 6: Typical degraded facade of old neighborhoods.

On the issue of degraded facades of the old buildings, it is common practice to dwell on their conservative recovery and functional and architectural redevelopment. And it is now widely shared that, in the context of renovations of old neighborhoods, the “historical memory” must be kept intact, Figure 6. And this is the task of an architecture that, while deontologically innovative, respects as far as possible the habitat to which it belongs. But there is no such matter as a codified methodology for the conservation project of facades.

Despite the need to apply some of the cutting-edge techniques for cleaning, consolidating and protecting facades, which are coded by national and local standards for the facades of monumental buildings, they are rarely applied to the facades of non-historic buildings, mainly for economic reasons.

Often the desire for innovation and a lack of knowledge of the local culture produce questionable effects in the restoration of the facades, Figure 7.

In some cases, advanced degradation inspires finishing work that creates a sharp contrast between interior and exterior spaces. This is the case of the former Italian Colony of San Marco in South Rhodes, abandoned for over 70 years, where the church facade was recently restored to its original state, while its interior has undergone chromatic changes that are markedly different from the original ones and those of the external façade, Figure 8.

2 Conserving parts of the degradation of the facades of historic masonry buildings

Keeping part of the degradation in the façades of historic buildings requires particular care, a restoration practice often adopted in the restoration of Florentine buildings with visual effects of great impact.

I cite as an example of the visual perceptual importance of the partial conservation of the façade degradation, a 17th century building transformed into a 5-stars resort structure,

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Figure 7: “Lifting” of the external walls.



Figure 8: Former colony of San Marco in South Rhodes; use of materials and colors in marked contrast with the pre-existing ones in the interior.



Figure 9: Conservative restoration of the facade of a medieval Villa in Florence.

the Bellosguardo villa in Florence, built in one of the most panoramic and historic areas of the city. The restoration of the heavily degraded façades did not erase the signs of time; on the contrary, leaving traces of degraded masonry and frescoes that once covered them has enhanced the aesthetic appearance and the perception of the history of the property on the part of the visitor, Figure 9 and Figure 10.

For established practices on such types of buildings, the principles of ordinary and extraordinary maintenance apply as established by current legislation, the definition of which is respectful of the culture of restoration.

From this point of view, therefore, the present state of the facade, investigated in its material and formal consistency, is to be judged original and authentic, as it was at the beginning of its existence from which it differs in an inexpressible and precious diversity created by the uninterrupted flow of time and, in essence, by its own “life experiences”, Figure 10.



Figure 10: Conservation of the signs of passed times.



(a) Radical changes in the entrances.

(b) Conserved exterior portals.

Figure 11

3 Degradation and innovation

Degradation and innovation can also coexist, but they can also destroy the harmony that makes them attractive even today, adopting questionable design choices for restoration and innovation. Figure 11a shows the entrances of two adjacent rural houses: a preexisting and a new one. The older entrance directly faces the street and invites visitors to enter the interior of the house (back in the time when e keys were not used to lock the entrance doors of the houses). The new entrance is off the road and well protected to prevent entry. These two architecturally different inputs reflect two different conceptions of life that inspired them, those of the past and of the present, and represent questionable design choices in restoration and innovation.

Even the materials used in such renovations are in sharp contrast to the pre-existing rural environment, Figure 11a, which belongs to Epano Elounda village in Crete, Greece (photo by M. Maio).

4 When the decay creates ruins

With the passage of time and without stopping physical decay, construction inevitably goes from the “state of degradation” to the “state of ruin”, in which the charm of the masonry remains standing, even becoming purely sculptural and a reference point for memory if significant territorial and environmental changes have occurred.

In Figure 12 it is possible to admire Roman remains, standing in the middle of a vast green lawn, which appear as real sculpture admired by everyone (photo by N. Avramidou). Figure 13 shows the remains of a portal of a Hellenistic tomb, in Pella, Greece (photo by N. Avramidou).

The presence of so many ruins in European cities, especially Italian, poses different questions to which it is difficult to give unequivocal answers, such as: the determination



Figure 12: Remains of Roman constructions, Viterbo, Italy.



Figure 13: Remains of Hellenistic portal, Pella, Greece.

of their quality and meaning, the reasons why they must be preserved and who should be entrusted with the task of such choices, what role, function and destiny they should have within cities that grow exponentially and together with the cultural diversity of their inhabitants.

In the cities of the present but also in those of the future, the archaeological ruins include not only the mighty remains of monuments but also the fragments, often incomprehensible, of tombs, aqueducts or streets.

New buildings have always been constructed over the ruins of ancient buildings, often using them as foundations or for overhanging and extensions. The choice not to demolish but to reuse what is existing creates presuppositions that often affect not only the constructive modalities adopted, but also the formal and compositive choices.

The cultural landscape of the twentieth century and the crisis of the consumer society based on the continuous process of destroying its products, as a major premise for the realization of the new one, has brought to the fore the concept of “recycling”, which, in the sector of architectural ruins, has often assumed incongruous expressions, Figure 14 (photo by A. Causevic).

The adoption of the term “recycling” in interventions to existing structures, draws attention away from the terms such as recovery, re-qualification or reuse to the predominance of the values of the existent which is considered to be somewhat inert material, or is about to end its life cycle; i.e. towards new values and design principles capable of manipulating the existing one to establish new life cycles.

To incorporate, transform, relocate pieces or entire parts of existing buildings into new buildings is in fact a customary building practice in the small historical centers, from the ancient world since the time of Palladian architecture, Figure 15 (photo by M. Maio).

The recycling of ruins is one of the possible alternatives to return obsolete materials, objects, and building features back into the production circuit.



Figure 14: Masonry ruins incorporated in new wood construction.



Figure 15: Inclusion of ancient architectural remains in new buildings, Rethymno, Greece.

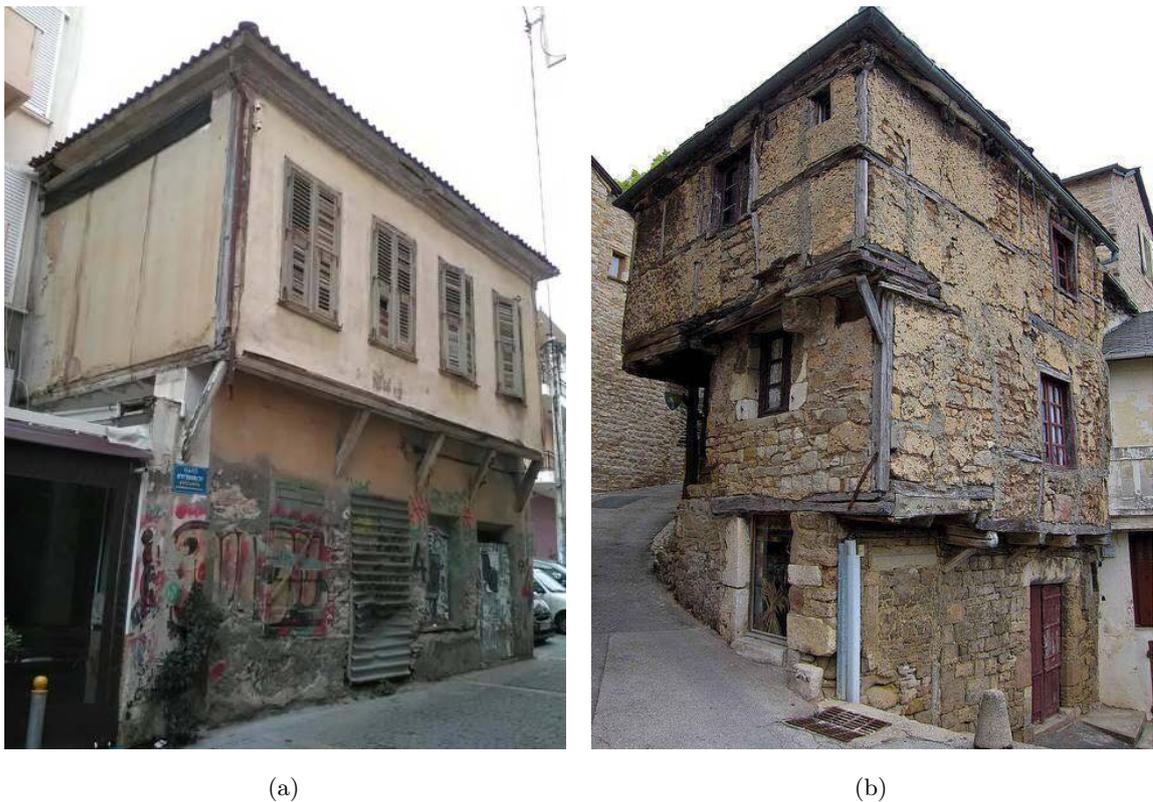


Figure 16: Isolated damaged masonry building within the surrounding built context.

5 Minor architectural restorations in an abandoned and ruined state inside small historical centers

All the art of restoration and preservation of monuments has dealt exclusively with qualified architecture, almost ignoring the importance of the minor ones that for centuries have surrounded them. And while the best and most durable materials have been reserved for buildings of great importance, allowing them to be preserved over time and without the need for heavy restoration interventions, more modest means and materials of immediate availability were used, in most cases, in minor architecture destined for residence.

As a result, much of this architectural heritage has been lost in time or partially destroyed. In some cases it remains as an isolated monument within the context surrounding it, made of buildings of the same type but completely renewed, Figure 16a (photo by M. Maio) and Figure 16b (photo by A. Causevic).

In general, this is architecture which harmonizes with the surrounding environment. Its construction uses the stone of the site, often retrieved from the oldest existing buildings, or materials such as terracotta bricks or tiles made of built-up furnaces or aged plaster. These materials give buildings extraordinary chromatic softness of architectural values, which characterizes all buildings built by the end of the nineteenth century.

With reference to colors choices, the color scheme of the plaster (also referred to as “color palette”) is an indispensable reference tool for the design choice of facade coloring. The formation of local color palettes is concerned with both historical iconography, material

testimonies, and the availability of traditional materials and basic pigments, which are still readily available.

The advanced degradation of such architectures allows an immediate assessment of the physical consistency of structural and technological components, and the collection of valuable data on past forms and processes as well as indications of the possible developments that degradation may have over time.

As the notion of cultural good has evolved from that of “art object” or “antiquity and fine arts”, so that of architectural good has evolved over time from that of “monument” to the concept of “good that is culturally diffused”, which recognizes the value of so-called minor architecture and the links between the individual architectural goods and the contexts surrounding them, as the perceptive aesthetic values linked with the memory of the past and history. In other words, attention is drawn to the importance of humble but still historic buildings and the implicit admission of value to contexts and historical relationships between them.

This evolution tends to result in the preservation of those buildings that are part of this new category of goods in the smaller historic centers, where it is recognized that these buildings should remain within an urban setting, constituting the original and authentic part of these settings. In any case, if the major contribution to the definition of particular territorial color declinations stems from material evidence still in situ, the reference, if any, to the pictorial range that derives from views of urban spaces or panoramic views of whole centers can not be neglected.

6 Some concluding remarks

The ancient buildings in ruins are immortal and not obsolete; they exist outside of the rules and outside of the flow of events, so the primary function of their original use is replaced by a psychologically important function, of primary importance, capable only of transmitting emotions. Hiding the degradation (fractures and loss of matter) would mean eliminating such emotions.

With all the theoretical and practical difficulties surrounding the restoration disciplines, there is a need to rethink the concepts involved in the conservative interventions of the monuments and the management of the various forms of degradation in relation to the causes that produce them and to the consequences that such causes may have on conservation.

It is well known that the degradation affecting masonry buildings directly exposed to atmospheric agents (wind erosion or decalcification) results in loss of matter with reduced bearing capacity. The absence or lack of maintenance accelerates such phenomena which consist mainly in the dissociation of the binder matrix and the disintegration of the masonry made in stone or brick blocks. Even in this case, and before the loss of matter has become decisive for the strength and stability of the masonry, some extraordinary sculptural effects can be taken that arouse the interest of those who observe them and which can also be highlighted and preserved, while proceeding to stop the progress of the damage with targeted consolidation works and with the means that the practice of today’s restoration makes available, Figure 17 (photo by N. Avramidou).

For those like me, who have been engaged for a long time around the theme of the evaluation of the decay of buildings, searching and fighting against the causes of decay, we cannot remain indifferent to the lack of interest in keeping these buildings alive, extending



Figure 17: Sculptural effects derived from water and wind actions.

their useful life, and working to reuse the remaining intact pieces, which still carry memories and feelings.