RUINS: LIVING HERITAGE. Conservation, restoration and enhancement

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ABSTRACT: Ruins are representative of European values and illustrative of European history and heritage and our aim should be to raise awareness of this heritage in order to create a stronger identification with Europe and a further European integration as well.
While people are living in and around World Heritage sites, their role in heritage processes and management has changed considerably.
Nowadays we must connect the conservation goals with the objective of smart, inclusive and sustainable growth. Local communities must be encouraged to use their local cultural assets as a springboard through a process whereby local actors, are encouraged to assume an active stewardship over the heritage and are empowered develop that heritage in a responsible, profitable and sustainable manner.
In their evocative and fascinating image, ruins must be returned to the contemporary life from which they often appear, instead, dramatically separated.
Interventions on ruins appear difficult and risky, on the boundary line between archaeological and architectural restoration.
The contemporary architectural interventions on the ruin oscillate from conservation to reintegration, up to the absolute extremism consisting in the reconstruction, considered acceptable and suitable only if based on the contemporary design that, from the knowledge of the history, leads to a creative and modern form and image of the architectural work.

KEY WORDS: Historical ruins, conservation, St. Galgano Abbey, Villa romana del Casale, Tempio Duomo Rione Terra
1. Introduction

Ruins constitute an area of interest for experiments and theoretical digressions in the field of cultural heritage preservation.

The numerous presence of ruins in European cities, especially Italian ones, raises several questions and many are the factors that must be taken into consideration as well. For this reason it is not easy to indicate a univocal road to travel.

It is necessary to establish the quality and significance of the ruins, to define the reasons why they must be preserved and for whom, taking into account that the cities grow exponentially and that the cultural diversity of its inhabitants grows too.

The term “ruin” has the double meaning of indicating both a process and the outcome of that process. It indicates the physical destruction or disintegration of something or the state of disintegrating or being destroyed as well.

Referring to the cultural heritage field, the term addresses to the remains of a building (typically an old one that has suffered much damage or disintegration) indicating precisely the result of the destruction, the remains that resist over time to witness what it once was and what happened.

Ruins, therefore, not only represents the tangible part of a past partly disappeared but is above all a generator of memory and can represent an opportunity to retrace the history in order to rediscover identity.

Ruins are what remain, relics deeply and drastically altered in the spaces, not only by time, but also by nature. In their evocative and fascinating image, ruins must be returned to the contemporary life from which they often appear, instead, dramatically separated.

Cultural heritage has a universal value for us as individuals, communities and societies; shapes our identities and everyday lives and for these reasons it is important to preserve and pass on to future generations.

Citizen participation has become an ethical obligation and a political necessity. It revitalises society, strengthens democracy and creates governance that can renew the conditions for ‘living together’, encouraging well-being and a better quality of life.

The heritage identification and protection process cannot succeed without a certain level of heritage awareness and acceptance among visitors and community residents.

Our action in the field of cultural heritage should target promoting diversity and dialogue through access to heritage to foster a sense of identity, collective memory and mutual understanding within and between communities.

The remains of the past (from the archaeological ruin to the historical building) rarely retain their original characteristics and it happens more often than they are the result of previous modifications (due to intentional interventions or natural causes).

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1 To enable people to become closer to and more involved with their cultural heritage the European Year of Cultural Heritage, throughout 2018 is seeing a series of initiatives and events across Europe (at EU, national, regional and local level) in celebration of our cultural heritage diversity.
Often remains little of the original intention and even when the building has arrived to us almost intact it is always a partial conservation, since the cultural universe that originated it has changed. We must consider the architecture of the past as "palimpsests" of complicated processes of transformation, due to the repeated changes in the historical and social conditions.

In the past the ruin was considered as a resource available to be used and mankind intervened on it without the current shyness.

The contemporary architectural interventions on the ruin oscillate from conservation to reintegration, up to the absolute extremism consisting in the reconstruction, considered acceptable and suitable only if based on the contemporary design that, from the knowledge of the history, leads to a creative and modern form and image of the architectural work.

Interventions on ruins appear difficult and risky, on the boundary line between archaeological and architectural restoration.

However, the significance of the ruin itself can be achieved only through a reintegration of the work in the context from which it appears excluded, becoming an integral part of the present, while maintaining its historical and primitive meanings and values.

The goal to be pursued necessarily must be that of attributing a correct meaning to the ruin, in a logic of conservation and respect of the monument to be enhanced, through transformations compatible with the authenticity of the ruined work, avoiding deformations and alterations of visual and formal perception of the ruin.

Nowadays, there are 3 main approaches aimed to enhancement of ruins:

1. Conservation of the ruin in its material authenticity, shape and mutilate image;
2. On-site museum;
3. Reintegration of the image with contemporary design.

Obviously the choice of one solution rather than another one depends on the multiplicity of factors and circumstances mentioned previously.

Each case is a case in itself and does not want or can be an absolute reference for all other ones. By way of example, three cases of conservation, restoration and enhancement of ruins located in Italy will be illustrated below, offering an excursus on the operational practice putted in place in the territory for the protection of this complex and priceless heritage.
2. Conservation of the ruin in its material authenticity, shape and mutilate image: St. Galgano Abbey (Chiusdino - Siena, Tuscany)

St. Galgano Abbey in Valdimerse is one of the most interesting examples of the Italian Gothic-Cistercian style.

The centuries of greatest splendor of the abbey were the XIII and XIV but, since the beginning from the XV century began a decline that culminated in the collapse of the vaults of the abbey church (1781), with the ruin of the bell tower (1786) and with the ecclesiastical sentence of profanation (1789).

The abbey complex consists of the famous church "without roof" and a mighty building placed along the right arm of the transept. In this building there were the sacristy, the archives, the chapter house, the parlor and the scriptorium, and at the upper floor, the dormitory and the chapel. On the right side of the abbey church there was the cloister, completely disappeared.

The abbey was built with a Latin cross plan with three naves, for a length of 72 meters and a width of 21. The apse finishes with six single-lancet windows and a rose window that give to the whole architectural structure an extraordinary sense of lightness and elegance.

Fig. 1 St. Galgano Abbey, source: https://www.guidesiena.it/tour/san-galgano/
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Fig. 2 St. Galgano Abbey, source: https://www.guidesiena.it/tour/san-galgano/

Fig. 3 St. Galgano Abbey, aerial view, source: http://www.ilcittadinoonline.it/cultura-e-spettacoli/san-galgano-un-templare-terra-di-siena/
In 1503 the abbey was entrusted to a commendatory abbot, a choice that accelerated the decadence and ruin of the whole complex. The administration of the commendatory abbots turned out to be awful, so much so that one of them, in the middle of the century, had the lead cover removed from the roof of the church so that then the structures quickly deteriorated.

In 1577 restoration works were started, but they were useless interventions that did not succeed in minimizing the progressive degradation.

In the first half of the eighteenth century the complex collapsed into several parts and those still standing were intact still for a short time. In fact, in 1781 what was left of the vaults collapsed and in 1786, because a lightning, the bell tower collapsed; the main bell, made in the fourteenth century, was saved, but only a few years later it was sold as bronze.

In the following years the abbey was turned into a foundry, until in 1789 the church was definitely deconsecrated and abandoned. The rooms of the monastery instead became the seat of a farm and were partially restored as early as the first decades of the nineteenth century.

Towards the end of the nineteenth century there was a new interest to the monument.

In order to restore the building, in 1896 the Architect Antonio Canestrelli started the survey of architectural structures and the whole building was the center of a historical study supported by a photographic campaign carried out by the Fratelli Alinari of Florence.

Gino Chierici in 1924 for the restoration project of the Abbey of San Galgano, had guessed that the building had been reduced to ruin for too long and had well understood how that fragmentary image was historicized in the collective imagination contributing to increase the evocative power of those beautiful ruins. It was necessary to identify an intervention strategy that did not alter at the semantic level of what remained of the abbey.

Even before analyzing the relationship between the abbey and the natural context that had assimilated it, figuratively speaking, as a ruin, it focuses on its actual state of conservation and proceeds to a careful historical research that can clarify the causes of a so advanced deterioration.

Precisely the satisfactory conservative state of the surviving structures pushed Chierici to a consolidation intervention that would not alter the figurative image of the ruin.

At this point, Chierici addresses the theme of the fragment, working on the ruin as a surplus and as a lack, analyzing the remains to clarify both the level of conservation and the expressive potential of these, to define the limits of possible integrations.
Chierici matured the decision to proceed with a conservative intervention of pure consolidation with some structural additions aimed at guaranteeing the static equilibrium of the building, disinteresting to the theme of re-use.

Chierici used the term "consolidation" and not "restoration" to define his project, probably to highlight the difference between its choices and what most of the technicians of the time would have expected from a restoration.

Chierici decided to demolished and rebuilt with the recovered materials the vault that covered the last bay of the left side aisle that, unlike the others, had been made of bricks; he partially consolidated and restored some architectural elements and had rebuilt the third last transverse arch of the left aisle near the transept.

Eliminated the danger of walls collapsing, Chierici consolidated all the masonry, demolishing and reconstructing the unsafe parts and repairing the lesions.

This intervention constitutes, in the Italian context, an important reference from the methodological point of view, especially today that the problem of the protection of archaeological evidence is becoming increasingly urgent.

The variegated archaeological heritage with which we must confront highlights the complexity of the protective interventions, and approaches such as that of Chierici for the Abbey of St. Galgano make us understand that protection can take various forms and multiple meanings.

Fig. 5 Consolidation Project of St. Galgano Abbey by Gino Chierici, source: G. Chierici, “Il consolidamento degli avanzi del tempio di San Galgano” in Bollettino d’arte del Ministero della pubblica istruzione : notizie dei musei, delle gallerie e dei monumenti d’Italia , Anno 4, ser.2, n. 3 (sett. 1924).
3. Conservation and restoration of the ruins with enhancement through by an on-site museum: Villa romana del Casale (Piazza Armerina - Enna, Sicily)

Listed in 1997 in the UNESCO World Heritage List, the Villa Romana del Casale is an example of a late-imperial Roman luxury villa whose use was intended for holidays or hunting. Dated between the end of the third century and the beginning of the fourth century, the site has a typology of a manor house (*pars dominica*) belonging to a large rural village (*mansio*), located in the district of Sofiana, five kilometers away from the villa.

The Villa has 48 rooms (about 3500 square meters of surface) and is famous for the richness and quality of its mosaics (4th century AD), which are recognized as among the most beautiful Roman mosaics in situ to date. These mosaics testifies the habits of life of the ruling Roman class and shows the mutual influences between cultures and exchanges in the ancient Mediterranean - between the Roman world and the North African area - and allows to retrace the history of the greatest among the Empires, with scenes of daily life, depictions of heroes and deities, hunting scenes and games.

The Villa continued to be inhabited even in the Byzantine and early Middle Ages (V-VII century) and in the Arab-Norman period (X-XII century) it was still frequented as an emporium and agricultural center.

Between the 14th and 15th centuries, after the devastation of previous centuries, a new agricultural center called the Casale was established, from which the current name of the archaeological area comes from.
Fig. 7 Villa Romana del Casale, aerial view, intervention by Arch. Minissi, source: http://www.siciliafan.it/wp-content/uploads/2013/07/033.jpg
Following subsequent damage and flooding, and the consequent landslides that covered many areas of the complex, the ancient Roman settlement was permanently abandoned.
The first excavation campaigns began in 1881, and then resumed from 1935 to 1939; In the 1950s the entire complex was brought to light.
The intervention of the coverage of the large triabsidata hall (Triclinium) designed by the architect Piero Gazzola dates back to 1941.
In 1958, following a competition, the architect Minissi was in charge with the task of conserving and enhancing the Villa.
Minissi designed a roofing system that manages to reconcile the need to protect the archaeological ruins in situ with respect and maintenance of the atmosphere created by the ruins themselves.
The project, due to the transparency and lightness of the materials used, leaves the system of the villa recognizable, with the ancient traces of the walls and the mosaics of the floors visible and creates an immaterial space illuminated by a diffused, indirect natural light.
The architect does not realize a single roof over the whole domus, but more roofs, each with modern materials and technologies and proposes for each the form that could have originally had. Through this solution Minissi manages to reconstruct, ideally, the original volume of the Villa. Thin steel upright pillars, resting on the traces of the walls, support the roof. The volumes, the roofing layers and the walls are made of transparent plastic material (perspex), innovative for the times.
In contrast to the practice in use in those years, the construction of suspended metal walkways on top of the ancient perimeter walls of the various environments, create a raised path that allows you to read the mosaics from above, without trampling them and organizes the entire tour route.

The coverage of the Villa del Casale is part of the history of contemporary archaeological museography for the refusal of any attempt to camouflage or reproduce false stylistic, for the minimalism, the choice of materials and non-aulic forms, for the transparency and lightness of the innovative materials and advanced technologies used and finally for the constant attention between the need for in situ conservation of archaeological finds and the changed needs of a wider use by the public.

The solution designed by Minissi has always been much appreciated by contemporary critics. In the decades following its realization, the work of Minissi was distorted by the lack of maintenance, by repeated vandalism, by fire attempts, by the 1991 flood, by the deliberate destruction of the false ceilings and by the replacement, with whole glass sheets, of the side shutters, impeding the air circulation, made possible by the pre-existing shutters.

In 2004, the Sicilian Region appointed Vittorio Sgarbi high commissioner for the restoration of the Villa, who commissioned the architects Lucio Trizzino and Mario Bellini to replace the current roofing.

The architects designed a huge dome of 160 meters in diameter, 40 meters high, in steel and glass, a very opposed solution, and in fact unattainable, so that, in the same year, Sgarbi appointed the architect Guido Canali who re-proposes the coverage designed by Minissi, realizing it with a modular construction system, covered with plastered aluminum panels. Even this hypothesis was rejected and a competition is then launched that leads, in 2006, to the approval of the project of Arch. Guido Meli (Director of the Archaeological Park), by the Regional Public Works Department.

The project, drafted by the Regional Center for Design and Restoration, directed by Meli himself, proposes the reconstruction of the walls of the entire villa with plasterboard perimeter panels, plastered in earthenware pesto, and a wooden roof, protected by a copper mantle.

In 2007, because the coverage of Minissi was completely deteriorated due to lack of maintenance and improper interventions, it was decided to eliminate the old roofs and museum layout, considered by Sgarbi not only not more efficient but also, dated, inadequate and incapable of evoking the original volume of the Villa.

In spite it has been insistently asked not to demolish the work of Minissi, the new intervention of architect Meli was realized canceling the solutions proposed by Minissi and canceled the previous lightness with a more invasive intervention and illuminating the mosaics with only artificial lights.
Fig. 10 Villa Romana del Casale, source: FIE - Comitato Regionale Sicilia Federazione Italiana Escursionismo,  http://www.fiesicilia.it/1sicilyfest/wp-content/uploads/sites/2/photo-gallery/imported_from_media_library//49_villa-romana-del-casale.jpg

Fig. 11 Villa Romana del Casale, source: FIE - Comitato Regionale Sicilia Federazione Italiana Escursionismo,  http://www.fiesicilia.it/1sicilyfest/wp-content/uploads/sites/2/photo-gallery/imported_from_media_library//16230233072_fb238c119c_b.jpg
4. Conservation and restoration of the ruins with reintegration of the image through by contemporary design: Tempio Duomo Rione Terra (Pozzuoli - Napoli, Campania)

The site is composed of a Roman temple on whose perimeter, with subsequent adaptations and transformations, the Baroque Cathedral was built. The dating of the temple to the Augustan age is confirmed by the name of the architect Cocceio who appears in the inscription on the east wall of it.

The temple, in white marble, was a *pseudoperiptera* plant with nine Corinthian columns on the long sides and six on the short ones, with a square cell also in marble.

From the end of the 5th century the ancient Temple was adapted to a Christian church, dedicated to St. Procolo, and it remained visible under the new structures until 1632, when the new arrangement of the cathedral hid the ancient structure under Baroque decorations and stuccos leaving visible only some Corinthian capitals above the secondary door of the building and a few fragments of the *epistilio*.

In 1964 a violent fire destroying the roof, the nave and much of the seventeenth-century decoration brought to light the structure of the ancient Temple of Augustus once again.

The restoration works begun in 1964 and continued until 1972, were entrusted to the architect Ezio de Felice, who privileged the archaeological parts to the detriment of the Baroque construction.
The interventions included the consolidation of the temple with the introduction of iron elements and with the construction of a reinforced concrete slab on micropiles; for the temporary protection of the Temple was then built a metal roof. The works were then interrupted abruptly due to lack of funds.

The International Design Competition for Restoration of the Tempio Duomo Rione Terra in Pozzuoli, announced by the Campania Region, set some criteria to be followed:

- Adherence to the principles of restoration;
- Respect of the archaeological and Renaissance / Baroque pre-existence;
- Distinguishability of contemporary interventions and integrations;
- Attention to the sense of place;
- Re-functionalization of the Cathedral.
The project of restoration of the monument should had to maintain the functions (archaeological/place of worship) and enhance the historical-artistic and landscape setting in which it is inserted. The result is a site-museum that combines the archaeological protective function with a liturgical reuse function.

The group of designers has set as its goal the achievement of a unified vision, both inside and outside, of the two moments of the construction of the monument, the phase of ancient Roman Temple and that of Christian Cathedral.

The planning difficulty lay in making the complex stratification of the building comprehensible. The intervention is based on an accurate conservation project aimed at ensuring the maintenance of the largest possible number of existing elements.

The project guarantees the best enhancement of the site through a dual function, the renewed liturgical use of the strictly religious space, and the cultural use of accompanying to an archaeological visit and a better collective enjoyment.

5. Conclusion

In the awareness of the impossibility of giving a generalized architectural response because of the uniqueness of each archaeological artifact, it is necessary to try to define the critical issues that inevitably hide behind the conservative strategies to be adopted for the protection of archaeological evidence.

It is evident that the addition of a protective cover is motivated by the need of on-site conservation, but this should not lead automatically to the generalized hypothesis of providing covering to any archaeological site anyway.

The motivation of the need for such protective intervention and the solutions to be adopted for its implementation depend on the numerous and differentiated qualities and conditions of the individual archaeological sites as well, and above all, on their contents.

Is evident the justification for protecting those architectural complexes rich in artistic, decorative or furnishing contents with the aim of keeping them in their environmental context and in their reciprocal relationship (as in the Villa Romana del Casale); while it may seem unjustified to protect with coverings the wall structures that are solid and that can be protected with methods that do not alter the image of the site (St. Galgano Abbey). On the other hand, is still justified introduce a protective coverage in archaeological complexes if the masonry structures were made of fragile and easily deteriorable materials or if is envisaged a re-functionalization of the site (Tempio Duomo Rione Terra).

The solutions described represent the concretization of the entire debate on restoration and the relationship between architecture and restoration, the new and the ancient, which involved, starting from the post-war period, all the main scholars of the time and marks a different way of project research aimed at affirming the full right of coexistence of the culture of the project of the new next to the ancient, while privileging the objective of safeguarding the archaeological finds in situ.
6. Author Contributions

This paper is the result of exchanges between the authors. 

Silvia Soldano has presented the issue related to the conservation of the ruin in its material authenticity, shape and mutilate image (St. Galgano Abbey, Chiusdino - Siena, Tuscany).

Antonino Frenda has presented the issue related to the conservation and restoration of the ruins with enhancement through by an on-site museum (Villa romana del Casale, Piazza Armerina - Enna, Sicily).

Patrizia Borlizzi has presented the issue related to the conservation and restoration of the ruins with reintegration of the image through by contemporary design (Tempio Duomo Rione Terra, Pozzuoli - Napoli, Campania).
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