

Ancient Poggioreale: an opportunity for reflection on the topic of post-earthquake territory abandonment

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Abstract

50 years after the ruinous earthquake that hit the Belice valley, many post-earthquake problems are still unresolved. One of the major problems is the abandonment of the territory. This phenomenon had already started before the earthquake, after which it accelerated. Today, the territory abandonment, also due to a combination of other factors affects several other areas of Italy. This phenomenon is the focus of the present study. Territory abandonment can be interpreted as both a warning and a way to stimulate research to find solutions in order to avoid that this phenomenon keeps repeating. The analysis of the history and the assessment of the current economic and social situation of the Belice valley, provide a comprehensive picture of the events and their consequences which constitute the basis for the development of effective strategies. The case study chosen for the present paper is the ancient village of Poggioreale, today a picturesque ghost town. The multidisciplinary strategy we propose, drawing on the knowledge, experience and skills of different disciplines, has the ambition to address the problem from three points of view: memory, dwelling, and production. One of the main problems before and after many earthquakes is poor or no communication between the various institutional actors involved in dealing with both seismic prevention policies and related emergencies. Hence, the strategy recommended highlights the importance of taking into account all the different processes involved, to offer more than one solution for the same problem.

Keywords: Revitalization strategies; Design; Technology; Space; Memory; Time.

1. Introduction

We focus on the territory abandonment due to catastrophic events such as earthquakes. The decision to leave the affected area and relocate elsewhere, at least to some extent, help coping with the problem, adds pain to an already distressful situation. The attachment to one's own land and hometown exists though much of the city has disappeared. This is what happened in Valle del Belice. We will investigate the phenomenon of territory abandonment and evaluate strategies to prevent it from happening again.

Narrating the 1968 Belice events, this paper highlights the effects of that earthquake, the response by the government and the outcomes of the choices that were made with regard to both *in situ* and delocalized

reconstruction projects. Belice today, after over 50 years the seismic event took place, can be defined as an incomplete territory, with great potential but without the necessary resources to exploit it.

The small town of Poggioreale in particular is an excellent case study to shed light on the abandonment phenomenon and its direct consequences on the human lives and the actual stones and materials making up the territory. The new multicenter, delocalized town has contributed to turn the “ancient Poggioreale” into something resembling a ghost town movie set, and should this film be shot, it would have to deal with the ghosts of its past.

The phenomenon of abandonment involved the whole valley and Poggioreale in particular. Here we propose our considerations in order to address this reality and to develop a new awareness on the issue through the analysis of the consequences of territory abandonment.

Which kind of redevelopment strategy could offer the right solution for a territory that has suffered the destruction of its identity due to both the earthquake and the mortification of its history resulting from its subsequent abandonment?

The study of the strategies that are been finalized in order to solve this problem can provide an answer. Most strategies, however, have to deal with a lack of a global vision and synergy by the parties involved. Every discipline and sector with their skills and expertise, often fail to take into account different perspectives, thus arriving at partial solutions to the problem.

Aware of these risks, a multidisciplinary strategy that proposes a process rather than a project could be a solution for Poggioreale. The present work has two targets. The first is to draw attention to the future of the town, at local level; the second one is to reflect on the consequences of the phenomenon of territory abandonment as a whole.

2. The facts regarding the Valle del Belice

The Belice earthquake presents some anomalies, such as the official number of casualties, evacuees and inhabitants involved. The official documents released by the government report very different information [Caldo, 1975]. What is certain is that at the end of the 10-day seismic swarm, during which most of the destructive shock took place on January 15 (MW = 6,4), about 58% of the population had to leave their homes, showing as the local community had underestimated the risks and dangers of the earthquakes.

The Belice economic reality was very poor and based on semi-archaic agricultural methods. People used to grow their crops in small family-run plots of land. The specialized viniculture establishments in partnership with the agro-industrial complex were few. Markets were discouraged by the territory’s very poor road system as well as the construction materials difficult to find locally. Because the area had been considered low-risk in terms of seismic activity until then, governmental institutions had never studied, designed and implemented prevention and safety measures. Hence, underdevelopment generated poverty, and in turn, vulnerability.

2.1 The State response

The conditions of the affected population appeared extremely harsh, worsened by the slow and inadequate actions by first responders. Support and grants by the government were enough but the distribution of these resources lacked of coordination. For this reason they were not effective and rational. The Belice events have become a well-known example of emergency and reconstruction negligence. There was little or no organized intervention, whilst many irregularities took place due to the overlaps of different expertise and responsibility. Security systems and supervision were also inadequate: there were hoarding cases by people from areas re-saved from the earthquake as well as cases of urban speculation and usury.

The outrage caused by such mismanagement and delays started a nationwide debate on the media, which led to the re-organization by the Civil Protection Department.

As it’s known, the central government insisted on delegating the needed operations from Rome, which means a centralized and highly bureaucratic management of the emergency, preventing, at the same time, the local communities from having any control over the process. The central government, instead of trying to understand the economic and social dynamics of the community before the earthquake in order to improve and modernize them, pushed for a so-called

“urban re-foundation” based on a utopian and abstract model of reconstruction and redevelopment [Fabro, 1985; Gallitano et al., 2017].

The lack of a synergetic urban planning resulted in the juridical impossibility to coordinate reconstruction and redevelopment. Only later the government opted to decentralize, handing over the management and decision-making of the post-earthquake reconstruction work and planning to the municipalities involved [Parrinello, 2015; Gallitano et al., 2017].

For the social and economic rebirth of the Belice valley, the Cassa del Mezzogiorno (Fund for the South), the Ministry of Infrastructure, the Ministry of Agriculture and the Region of Sicily produced the famous “pacchetto Sicilia” (Sicily package) according to which the Valle del Belice would become an example of perfect integration between agriculture and industry. However, as there was no “flywheel effect” generated by locally invested capital and consumption of goods and services due to the far from healthy economic situation of the affected areas, the hoped development of a new and integrated socio-economic fabric capable of rebuilding the economy never took place.

In this political and administrative impasse, the central government stimulated migration, handing out free one-way train tickets asking neither bureaucratic formalities nor passports: it was the most simple way to ease social pressure, but at the same time this started the devastating territory abandonment which generated ghost towns and, to borrow a science-fiction movie expression, “replicant towns”.

2.2 The choice of in situ and delocalized reconstruction

After the earthquake, the Belice mayors were asked to choose whether to rebuild the towns in situ or in other areas. As it is known, some municipalities, such as Santa Ninfa, were determined to rebuild their towns at their original sites, whereas others opted for delocalization (Poggioreale, Salaparuta, Gibellina).

The reasons behind the delocalization option stemmed from the idea of improving the quality of life of the agricultural working class: the reconstruction of the new urban nuclei was to be consistent with anti-seismic planimetries, new construction techniques and design concepts. The earthquake started being considered as an opportunity to attract, in a outlying area of the country, personalities from the fields of architecture, city planning and the arts who would contribute to the reconstruction with their theoretical and academic skills and vision. We must not forget that in those years construction was a driving force of the country’s economy and many people were interested in promoting and getting involved in such lucrative business: the advertised, modern and glossy new towns with their new houses with all kinds of technological comforts were to be set against the old and often run-down historical towns. The new town was also associated with a different lifestyle, marked by the transition from an agriculture-based economy to an industrial one, in line with the national trend of the time.

During the years there have been many *a posteriori* analyses concerning both options. Regardless of the reasons behind the decision of each municipality, recent literature offers interesting ideas on this subject (see par. 3).

The key point is that both modalities of reconstruction should meet the requirements of sustainable development to safeguard the economic growth, the environment, and the local cultural production in order to ensure and foster residential satisfaction.

As it’s known this did not take place in Belice. The predicted industrial development did not take off because the local inhabitants did not get the opportunities and instruments to revitalize the economy. The oversized infrastructures when completed turned out to be too difficult to manage. The new urban developments, too oversized, failed to reactivate the identity values of the old towns and villages [Cannarozzo, 2009; Ianni, 2013].

As for the idea of rebirth starting from the ideal of beauty, advertised for the new Gibellina, existential divide between artists and the community, and between “ideologists” and the “faces of ideology”, was and is still very wide, producing the well-known outcomes of alienation which have often been discussed in the literature of the sector [Ciaravella, 2013].

For more than half a century, it was hoped that the re-foundation would constitute an opportunity for the Valle del Belice: “The earthquake should have been a great occasion for the reconstruction process, but above all a turning point for a more modern economy, to create job opportunities for young people and avoid their fleeing the territory” [La Ferla, 2004, p. 10]. But, as it’s known, the failures of both the reconstruction and the models proposed for the new towns did not meet the needs of the citizens that decided to remain.

This is how some cities were built and they can be metaphorically seen as “offspring” of their time, but not the “parents” of their inhabitants.

However, looking a bit closer at the Belice case, despite the old and more recent accounts reported that the earthquake was a missed opportunity, the occurrence of the earthquake has only sped up the depopulation process which had already started. Moreover, the population, as mentioned above, out of necessity and because they were encouraged to leave too, left their native territories for distant places, beyond the national borders. The phenomenon of youth migration, that was a fact before the earthquake, is often ignored by literature referring to the Belice valley [Pinzello et al., 2012].

On the other hand, to understand the reasons of the birth and especially the decline of the original village of Poggioreale we can draw on Bruno Zevi’s analysis who notes that “in Sicily, during the Baroque period ... rural, agriculture-based villages thrive ... Their plots of land were parceled out in a checkerboard pattern, they had one-story houses and a tiny road network rarely interrupted by other roads intersecting slantwise (Poggioreale, 1642)” [Zevi, 1995, p. 77]. However, it has also been identified the intrinsic fragility of these settlements, where “if the conditions of hunger and poverty change, their social and urban fabric is destined to suffer abandonment and degradation” [Zevi, 1994, p. 57].

Reading Zevi, it looks as if the fate of Poggioreale had been set right at the beginning of its history: it all depended on the agricultural reasons of its foundation which, once they were no more, the village would experience an irreversible decline too.

2.3 The Belice today

How does the Belice look today? 50 years later, in the territories hit by the earthquake we are still looking for those elements that can revitalize the area and promote a redefinition of the values linked to the territorial identity, with the support of consistent development-oriented politics in the new territorial landscape.

A clear fragmentation of the territory emerges from both the economic and physical point of view: alongside the massive post-earthquake infrastructures, there is a road system to access several municipalities which is in bad repair and in some cases even precarious. This clashes with the idea by Campos Venuti we would agree with, who stated that it is necessary to invest not only in the single areas hit by the event, but in the whole territory as well. In order to avoid inconsistencies and a distorted development, it is therefore indispensable a coordination on the part of the Valley’s municipalities to establish roles and relationships capable of overcoming vested interests and political maneuvers that often have little or nothing to do with the local issues [Gallitano et al., 2017].

According to the last INU Report on the territory [Properzi, 2016], about 50% of the Belice municipalities did not produce any General Urban Development Plan yet.

Undoubtedly, this planning stalemate has a negative impact on the territory which is trying to find a new approach for local development, while waiting for its respective administration to release the respective urban development plans. Since the late 1990s and more systematically in the 2000s, many public and private actors are experimenting models of coordination and cooperation through planning instruments. Through a partnership agreement, 26 local administrators, natural reserves directors, public and private museum managers and charitable association are trying to redefine the layout or structure of the post-earthquake territory, emphasizing the values related to their cultural identity based on the concepts of belonging and community [Gallitano et al., 2017].

However, despite the real potential offered by the territory (especially in terms of the agroindustrial supply chain involving ancient grains, high quality wines, fig-based products, etc.), Belice is still a reality characterized by disorganized and disconnected businesses struggling to take off, to date. As a result, more people tend to keep emigrate thus worsening the depopulation problem.

Hence, the average age of the population of the new cities (Gibbellina, etc.), including the ones built *in situ* (Salemi, etc.) keeps increasing, while the villages that were abandoned after the earthquake stand like defaced “corpses of stones” because they were left “unburied”, that is, in a state of complete neglect, facing oblivion

2.4 Poggioreale

The numerous seismic waves, especially those that hit the Belice on January 14 and 15, left the small town in ruins. However, it took a long time to understand the real impact of the earthquake on Poggioreale. Many families decided to emigrate (in particular 173 from Poggioreale), most of them to Australia, others to Switzerland. In the meantime, a shantytown was built between the borders of Poggioreale and Salaparuta with the aim to replace the initial tent city. They would spend long years in that shantytown, until 2014.

Regarding the early stages of reconstruction, the minister of infrastructures and transport Giacomo Mancini, proposed a project for the towns of Gibellina, Poggioreale and Salaparuta. The idea was to build a larger town to incorporate all the three communities. But the interested municipalities turned this project down for various reasons, but mainly out of mere parochialism.

For Poggioreale the choice to delocalize was not unanimous. A bitter controversy ensued, but then on February 1, 1968 they opted to start rebuilding on a new site. Some say it was for the sake of the common good, others believe the choice was determined by vested interests, political and/or economic.

In the meantime, the old town became totally abandoned, proof of its long and unstoppable agony. They say in fact that “what the earthquake started, time finished”. Little by little, time and neglect are removing any link between the territory and collective memory.



Figure 1. Piazza Elimo in the old Poggioreale: the “work” of time.

3. The abandonment: the end or a new beginning?

Catastrophic events like that one that hit the Valle del Belice, sometimes lead to the abandonment of the devastated area. The reasons, as in the case of Poggioreale, are different: from the relocation to a safer place, to real land speculation, to the desire to start a new life but somewhere else, to the hope of living in a more comfortable and suitable context capable of meeting the real needs of its inhabitants, to the project of looking for a new job and dreams.

Recent events on post-earthquake abandonment cases, show that the phenomenon keeps repeating in ways that have alarmed scholars such as Salvatore Settis, who noted that after the 2009 earthquake, the historic center of L'Aquila was emptied, leaving it to its bleak abandonment, and building a satellite city belt [Settis, 2014].

What happens when a territory is abandoned? The answers are as many as the number of such cases.

Before reflecting on the multiple consequences of the abandonment, we note that earthquakes and subsequent abandonment of the stricken territories can turn out to be important opportunities. It happened after the 1693 earthquake in Sicily, when the transformation of cities and rural areas was sped up and adapted to otherwise unthinkable new possibilities. In this context there is the Sicilian Baroque architecture, today UNESCO heritage, which is mainly the outcome of the opportunities for a new architectural vision offered by the post-earthquake landscape.

The Baroque rebirth marked by the reconstruction of the Val di Noto area, is also remembered for the phenomenon of abandonment, resulting in the birth of 12 new towns, among which Noto, Grammichele and Avola. They decided to move a number of urban centers from the mountain to the flatland or from inland territories to the coast, where life conditions were more favorable also in terms of the agricultural and industrial production of the time. The economic, political and social conditions of the time facilitated the transformation of the territory [Provenzano et al., 1995]. The historical juncture (characterized by the need to re-establish order in the shortest time possible, to acknowledge the establishment and the urgency to reactivate the economic system and the regime of the land owners) led to the acceleration of the urban and rural transformation that is still a symbol of post-earthquake rebirth.

Many researchers have the idea that catastrophic events can have positive outcomes and it is confirmed by historical facts [Margani, 1995; Ianni, 2016]. Some studies show that relocation can also have positive psychological effects on the people involved. Delocalization may mean more safety, compliance with new living standards, more infrastructures, a novel cultural life, increased urban resilience, and finally, contribute to creating new relationships and networks within the community [Abe et al., 2014].

However, we cannot overlook the negative consequences for the population and the “stones”. People can suffer the consequences of abandonment of the territory in terms of individual identity, sense of belonging, collective memories, their social identity, economic condition, the meaning of the places and so forth, the list can be endless. Part of the literature reports that the delocalization of countries affected by catastrophes in most cases produces feelings of alienation and of being deported, especially among senior citizens [Zhao et al., 2009]. The more predictable consequence regards the actual buildings, their obsolescence, until the complete loss of their structure. This last simplification acquires a multidimensional character we have to consider that the consequences on the people depend also on the relationship they establish with the “stones”, that is, the construction materials collective architectures, public spaces, institutional buildings and residential homes are made up of. Abandonment means also giving up the local natural environment, which implies the loss of the values one attaches to their hometown and surrounding areas, as well as the loss of care and control of the territory exercised by the farming business.

However, the theory of catastrophic events applied to architecture by Carmine Benincasa, shows how the history of the city is characterized by instances of discontinuity and traumatic detachments which then pave the way for new developments. Discontinuity is the rule that seems to fuel the universe, which is a “never-ending cycle of genesis, growth and transmutation of forms” [Benincasa, 1978, p. 11].

Are we to passively accept the course of events? Or should we try to reanimate the stones that, deprived of their soul, would be lost forever? Is the effort to save these realities pointless when history seems to have already determined their fate? Why, on the other hand, it is urgent to consider which strategies should be improved in order to save such places? The reasons can be found in the words by Zevi, according to whom “every Sicilian town or village is an atypical phenomenon, a *unicum* impossible to duplicate” [Zevi, 1994, p. 56]. The possible loss of this heritage, constitutes an irreparable damage, due not only to the unique character of its components and materials but also for the socio-cultural and economic survival of the community in that area or region.

4. The strategies

Many strategies can be proposed to solve the problem of abandonment. Their multiplicity goes hand in hand with the variety of abandonment forms that are determining the future of many Italian small towns. But now, as this problem has become a topical issue on a national and international level, the world of culture and professionals of the sector (e.g. engineers, architects, builders, designers) are getting mobilized.

At the 2018 Architecture Biennale, Mario Cucinella proposed for the Italian Pavillion the project “Arcipelago Italia. Plans for the future of the country’s internal territories”. He highlights how architecture can be an effective tool to revitalize territories. The Belice Valley was one of the chosen pilot areas as a symbol of the 1968 post-earthquake architectural reconstruction. In line with a strategy that focuses on individual architectures, the Gibellina theater (Consagra), an incomplete work, is considered another important opportunity for the revitalization of this area [Cucinella, 2018].

Research-action is the tool a participatory strategy (which involves the communities interested in the design choices) that can be used for the acquisition of pertinent knowledge and to devise solutions, including the Gallura city-territory project [Decandia et al., 2016].

The strategy of betting on tourism [Dall'Ara et al., 2010], to counteract the phenomenon of abandonment and revitalize the territory, finds more consensus than actual and effective commitment. Nonetheless the 'albergo diffuso' is still an easy and viable solution for abandoned territories.

Abandoned or near-abandoned towns and surrounding areas defined as "internal" as well as "fragile", "shrinking" and "marginal", make up more than two thirds of the entire Italian territory [De Rossi, 2018]. Due to the size of this reality, their communities and territories are the object of an inversion of the previous strategies, that is, the focus now is on revitalization projects throughout the national territory.

The phenomenon is not only linked to natural catastrophic events but has taken on a more general dimension. The data are continuously updated with an ever-increasing number of cities and territories that are already ghost towns or about to be abandoned. In addition to be a topical problem, the phenomenon of abandonment of the territory is an issue that cannot be ignored any longer. The subject is heritage, its significance [Choay, 1995], but also landscape and its value. A strategic approach on a landscape and territorial scale, considers the centers in a state of neglect in relation to their territory or landscape. The proposed strategies therefore are for a city-landscape or city-territory solution, seen as a single entity.

The city-landscape, the concept according to which everything is landscape [Kroll, 1999], offers a wide range of strategic solutions ranging from redesigning open spaces [Bocchi, 2009], to the relationship between nature, environment and city, as in the case of the Biophilic Cities Project by Timothy Beatley [Beatley et al., 2010].

The strategies promoted by the National Strategy for Internal Areas (SNAI) are oriented towards the city-territory solution. The National Strategy for Internal Areas development strategies aim at countering the phenomenon of abandonment resulting from "distance" and "lack". The abandonment in fact is attributed to a series of parameters linked to "shortcomings", as well as to geographic positions of marginality and "internality". The ultimate goal of SNAI is to strengthen the demographic structure of such internal areas by reversing the depopulation trend. The design tools that have been considered for this dual objective are the ones devised to meet the demand for essential services and the need of local development projects. The final objectives, to be achieved after a series of intermediate objectives, are: local development which can be either intensive or extensive and the reversal of demographic trends. The intermediate objectives must achieve the per-capita increase of well-being of the residents, increased employment opportunities, the reuse of territorial capital, the reduction of the social costs of depopulation and the strengthening of local development factors. In addition, the strategy for internal areas are part of a national framework that largely intersects with local ones that depend on the former. The pilot projects of the first strategies are those which have involved consortia of municipalities in partnership to find, in the resources and potentialities of their territories, the answers to overcome their marginal status and work for the modernization of their territories without which they will keep being peripheral.

Another strategy [Fabbri, 2013] instead focuses on resilience and adopts a methodology for assessing the "specific resilience" of socio-urban systems to assess possible action scenarios that can be adaptive or transformative.

Marco Navarra proposes a strategy that considers the concept of resilience. He transforms "resilience" into "resili(g)ence", a neologism derived from 'resilience' as a novel and intelligent approach, to see the problem as a whole and deal with it accordingly [Navarra, 2017].

The role of the researcher and architect when faced with a catastrophic event is to ask the following questions: "how can we describe what has happened in a different way? What instruments and perspectives should be used to assess the configurations produced by a calamitous event and use these elements to inform the development of a project? How can we turn catastrophic events into great opportunities to rethink the future of a territory, rediscovering old, if not forgotten vocations as well as new potentialities?" [Navarra, 2017, p. 69].

It has at the same time been observed that the experience of the *new towns* in Italy today, built in order to give shelter to a huge number of evacuees in the shortest time possible, has been so disappointing that many have strongly invoked the return of the opposite strategy, that is, the *where it was, the way it was*. Solving the shelter and safety-related problems rapidly in fact, is not same thing as building cities which have longer maturation times in order to be defined as such. Cities cannot be built as if they were an assembly-line product and then ready to be lived and enjoyed. Cities are complex organisms constituted by an infinite number of variables which take a long time to develop their spaces, functions and meanings in a harmonious and coherent way.

In the case of the reconstruction of the Valle del Belice, they tried to have a comprehensive vision through the establishment of a "Comprensorio" (an association of municipalities to define joint projects) so to overcome the

problems related to the peculiarities of the territory and the many local administrations. In this way they anticipated what SNAI provides. But this was not enough to set in motion a planning system capable of integrating the new territorial reality with the territory's economic development. Administrative boundary lines in fact, include the whole territory, which is not always made up of homogenous areas. Hence, any analysis and reading of the problems is always partial and this complicates the development of appropriate strategies. That is why a research and development group [Pinzello et al., 2012] has tried to solve the issue of territorial unity and to overcome the problem of the administrative boundary lines using the hydrographic basin of the river Belice: this is the ambit this research group has to refer to for the relevant analyses and territorial strategies to implement in order to give new life to the valley.

The proposal is a geographic strategy working for homogenous environmental units that can be studied and developed taking into account the territorial peculiarities. Together with this, strategies for the involvement of the citizens should be perfected, knowing that after 50 years, as in the Belice case, there is little trust left. However, it is about finding the right instruments so that a community feel active and involved again in the rebirth of their territory.

In general, the studied strategies for a context cannot be applied *tout court* to other ones, without the necessary modifications through which integrated solutions can be designed. This is due to the uniqueness of the places and their geographical, economic, geological, social, environmental, cultural and architectural differences.

In the Act n. 158 (October 6, 2017), there are all the strategies that have routinely and, often in a monothematic way, tried to solve the problem of rebirth and revitalization of the municipalities involved in the process of depopulation and abandonment.

Indeed, Italian case studies offer several ideas that have been adopted by the government as possible intervention strategies, including the creation and the promotion of the following:

- 1) contemporary arts museum;
- 2) research and science facilities for advanced training courses;
- 3) hotels, eco-friendly resorts, spas;
- 4) movie sets;
- 5) artisanal production of typical goods;
- 6) environmental protection and landscape enhancement projects (ecotourism);
- 7) local farming products;
- 8) material and immaterial networks.

Reality however it has shown that each of these solutions, taken individually, have limited success in the long term. On the other hand, the strategies proposed for the places hit by natural disasters aim at achieving the following goals:

- 1) reconstruction and/or recovery of the urban areas;
- 2) memory reconstruction;
- 3) upgrading transport infrastructures and road system;
- 4) boosting cultural growth and awareness together with sustainable tourism;
- 5) adaption of the morphological layout to the new standards and characteristics of the territory;
- 6) securing the territory, recycling the rubble to use it as stem cells for the renovation and regeneration of the urban context;
- 7) development of *new towns*;
- 8) reconstruction in line with either the “where it was and how it was” model or “where it was but not the way it was” model;
- 9) the active involvement of the collectivity.

This is a list of possible strategies and other items can be added, but they can work only if the timing and modifications are adequate and tailored to each particular situation and context. Besides, non-complementary approaches have little chances to succeed, given that territories and especially cities are always a synthesis of all human activities.

A final observation must be made in relation to the issue relating to the economic resources. One of the main problems in solving the abandonment issue concerns the availability of funds for redevelopment. Given the limited public resources, incentives must be promoted more vigorously, at a national level, for the repopulation of areas that

are being abandoned or are already completely abandoned, facilitating private sector initiatives, also through streamlining bureaucracy. Private citizen can work individually or cooperatively through associations, as “residential stakeholders” (implementation of the “one euro houses” model) or as “activators of sustainable economic and cultural processes” (see “Cultural Farm Favara model).

5. The proposal for Poggioreale

Given the ever-worsening state of neglect of ancient Poggioreale, one might wonder which is the best proposal with regard to the ghost town-like scenario. If, as it is often the case, the city can be considered as living organism, then one could provocatively think to do nothing about it and let nature reclaim its spaces until no trace is left of the ancient town. In other words, as any living organism, cities have to follow the birth-death cycle too. But the city is an artifact and has to live for as long as it fulfils both a practical function (e.g. providing housing) and intangible ones (e.g. regard for and construction of collective and individual memory), for this reason we have to find the most sustainable and appropriate solutions to keep the city alive.

There are many possible answers to these considerations; different approaches and prospects. Below we will outline a synthetic proposal developed by the research group as in the footnote. The idea is to suggest a long-term solution to give new life to the old town of Poggioreale, a solution that is also sustainable from the economic, social and environmental points of view.

Learning from past mistakes, aware of the value of participation and of the importance of regarding a solution for Poggioreale as part of a more complex action involving the Valle del Belice as a whole, our group proposes a strategy based on the following three main topics: memory, dwelling (as the concept of living the city), and production (Figure 2).

We believe in fact, that to give new life to a town, besides being repopulated, its economy has to be reactivated and this means a new local production of both services and goods, without of course forgetting the preservation of the city’s memory and history

THE BASIC IDEA

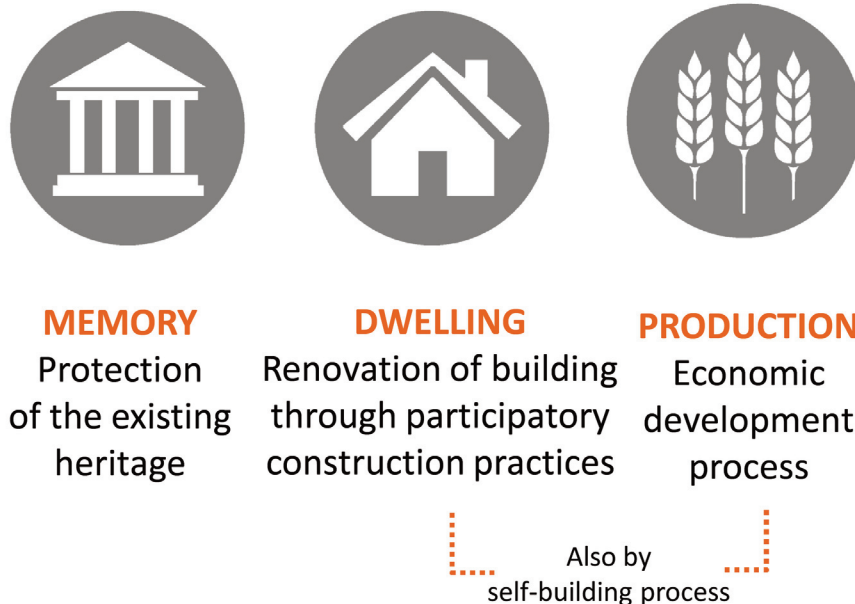


Figure 2. The proposal for the ancient Poggioreale.

In order to develop the first topic, namely, memory, the city's landmarks strongly linked to its identity (including the calamitous event that took place in 1968) must be protected to project these memories in the future on behalf of the next generations.

The second topic, dwelling, will be addressed by redeveloping the buildings suited for residential purposes, not only in terms of a place where people live and enjoy their hometown, but also in terms of welcoming tourists. We believe that promoting tourism and itineraries that create a network among the various villages and towns of the valley that constitute an attraction for visitors, is a key factor in determining the rebirth of the town.

Redeveloping and renovating buildings for residential purposes should also involve the residents' active participation: residents become entrepreneurs and work together for the common good. This choice arises from the need to reduce costs but also from the desire to encourage opportunities for participatory democracy and to guarantee and promote social cohesion also in the presence of different ethnic groups. Furthermore, having a direct relationship with your own home (building it with your own hands, using your time and your resources) means being more aware of the concept of living one's own home, which translates into more care for the property. Finally, the self-building approach provides the necessary tools for the acquisition of technical skills which can pave the way for new job opportunities. In fact, as we know, before undertaking self-building work, people benefits from training courses (didactic courses and laboratories). For this reason, we proposed to the municipality of Poggioreale a protocol to define the bureaucratic procedures for self-builders (i.e. terms, permits, financing, setting up cooperatives, etc.).

The third topic, production, as we have said, stems from the need to ensure the economic survival of the town. The new lines of production must be chosen according to the demands of the market and the real potentialities of the territory. Taking into account the Belice territory has a natural propensity for agricultural development, today there are the conditions to overcome the limits that locals were faced right after the earthquake, that is, when they failed to boost the agriculture sector due to the lack of economic resources from local private citizens. Today the Belice territory has huge potentialities in relation to its high-quality agricultural products (ancient grains, extra virgin olive oil, top quality wines, fig fruit based products, etc.) which belong to an age-old tradition but whose production processes have been updated thanks to modernized farming techniques and facilities attracting local and foreign investors. Interventions by private citizens could be further encouraged through significant tax-cuts.

Part of the activities linked to the agroindustrial production chain could be developed also within the old town (through retailers, small processing laboratories, etc.) to connect the latter with the farmland, thus adding value to the products' excellence. Accordingly, whenever it is possible (depending on type, size, building preservation, etc.) some of the ruins could be redeveloped and their architecture transformed, keeping their original design but capable of being used for new purposes.

Obviously requalifying the town means also considering the requirements for a safer and more functional fruition of public and private spaces. In line with this, the urban fabric could be streamlined as to redefine the relationship between constructions and empty spaces.

5.1 Methodology

Our methodology is based on the following points:

- 1) analysis of the old town:
 - diachronic analysis;
 - typological analysis;
 - analysis of the status of historical buildings conservation;
 - analysis of historical buildings and architectural emergencies;
- 2) getting acquainted with the needs and the will of the citizens. To this end, inquiries were made, and information collected also through surveys that were administered to the inhabitants of the new Poggioreale town and to those who now live in Australia.
- 3) analysis of traditional local crops. This analysis was carried out to know which, among the ancient crops, can be more successfully revived and marketed;
- 4) hypothesis of intervention in the city center.

5.2 Hypothesis of intervention

Within the three main topics (memory, dwelling and production), on the basis of the above-mentioned analyses, different types of intervention have been defined.

These interventions concern the entire urban fabric and aim at selecting different procedures for different types of buildings.

They are:

- 1) The first type of intervention is “Reconstruction and building restoration” (Figure 3): restore “as and where it was”. This type of intervention is selected for a specific church (Saint Antonio) and responds to the wishes of those who emigrated to Australia to rebuild the church of the Patron Saint exactly as it was before the earthquake (they have also set up fund-raising events to contribute to this project).



Figure 3. Reconstruction “as and where it was”. Church of Saint Antonio, the Patron Saint.

- 2) The second type of intervention is the “Restoration of significant buildings according to their historical and aesthetic relevance” (Figure 4) which are in a moderately good state of conservation. An example is given by Palazzo Tamburello-Agosta, that will be turned into a museum of popular traditions.
- 3) The third type of intervention is “Building renovation” (Figure 5). It will involve four variations:
 - introduce existing and new elements;
 - minimal interventions to improve the building performances;
 - reconstruction of new parts respecting the original plan;
 - addition of new elements and some demolitions and reconstructions.
- 4) The fourth category is “Ruins as a function of memory” (Figure 6). This type of intervention is about the realization of a “garden of memory”. A place or rather, a series of places, where the ruins will be left as they are: they will only be cleaned up and consolidated. To connect these different places of the town a new road pavement will be designed, using reused stones. The name of the garden is “palimpsest” because it is a new sign but where traces from the past are still visible.



Figure 4. Restoration of representative buildings: Palazzo Tamburello-Agosta (Museum of Popolar Traditions).



Figure 5. Building renovation.

Within these four categories of intervention some illustrative projects for specific buildings have been proposed. The first one has been developed for the Mother Church (the main church of the town) situated in the old town, which is still lying in ruins (Figure 7).

The idea of the project is to provide, protecting and restoring the ruins, an emblematic view of the Church. For this purpose, we propose to extrude the height of the perimeter walls to incorporate what remains of the bell tower. The new walls will have an independent structure, to avoid adding weight to the weak masonry structures. The Church's interiors will be "modeled" by the light that enters through a system of invisible ribbon-like windows situated high on the walls, in the void between the rib vault and the extruded walls. A blade of light brushing against the walls will create a pervasive aura of closeness and spiritual emotions.

The proposed intervention aims to emphasize the idea of standing ruins to convey the idea that in a way time stopped forever when the earthquake struck. The idea is to see the new part as a representation of the sky. That is why light is given great importance, creating a white and abstract space. The ruin is not falsely remodeled, but shows the wounds inflicted by the time and catastrophic events.

Conservation of ruin



The palimpsest



Road pavement pattern

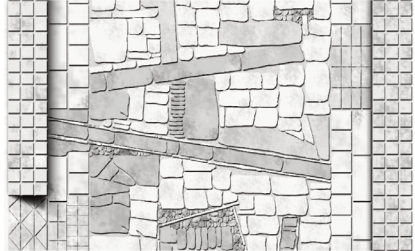


Figure 6. Ruins that function as collective memory.



Figure 7. Mother Church project.

Still on the topic of Memory, the municipal theater will be only cleaned up and consolidated, to set off its original beauty. The space in front of it will become a square, enabling the citizens to enjoy it as it was a long time ago. It can be characterized by urban décor elements (Figure 8).



Figure 8. Municipal Theatre project.

With regard to the theme of dwelling or living the house and the town, this category is exemplified by the building overlooking Piazza Elymo to the west, Largo Cannoli to the east, via S. Margherita to the north and Via Purgatorio to the south, where the homonymous church stands.

This project involves the conservation of the partially intact masonry structure, whereas the north-western part is almost non-existent. The design choice aims to preserve the existing building and integrate it with a new wooden self-built structure, using a platform-frame system, so to keep the original shape/design of the construction. In determining the layout of the apartments, we have tried to meet the demands of more modern and different housing concepts, by adding three different plan/design proposals. Seismic and energy performance will be improved, with minimum changes in terms of technological and material features of the building.

An analogous intervention has been planned also for a building that will be used for commercial purposes. In particular, this building can be used for the production, sale and export of fig-based food products (typical fruit of the area). For this category too the self-building approach is possible.

6. Conclusions

After devastating earthquakes, when both the rescue operations and the emergencies are over, starts the most complex and delicate phase, which is about the best way to rebuild the city and above all give new life to a place that, due to a violent shock, has lost its integrity, its place and especially its soul. The risk is that devastations often trigger the exodus of a large number of the affected citizens, as it happened in the Belice valley, speeding up the city's depopulation process. We are therefore confronted with yet another big problem: the post-earthquake abandonment of the territory and its revitalization. We focused on this topic trying to learn more about the dynamics involved and offer workable solutions. The old town of Poggioreale, now an actual ghost town, which has offered the prompt for this discussion, deserves to be revitalized otherwise its complete demise is inevitable.

Learning from past mistakes and starting from the ideas offered by the various strategic approaches analyzed, we have tried to define a possible strategy for the revitalization of the old town through some key assumptions: today we need to analyze the real opportunities offered by a real and sustainable, economic and cultural rebirth. We must interpret the conditions and new ways that facilitate investments by individuals who can boost the economy of the collectivity. We must also work for a more user-friendly bureaucracy in order to create the economic and financial conditions for local development. It is fundamental to connect the city with the country, which today offers new potentialities in relation to high quality crops, which are age-old but modernized to keep up with 21st century requirements and to attract local and foreign investors. It is also mandatory to link in a smart and efficient way all the communities of the valley through a complete network of infrastructures not only to increment the valley's economic and cultural relevance but also its tourism, from the coasts of the Agrigento and Trapani provinces to the most rural areas. It's also important to involve the citizens of the new town as well as the Australian community of immigrants that left Poggioreale decades ago in this redevelopment process.

Having set out these premises, we have structured our strategy on three fundamental themes: Memory, Dwelling and Production. Within these three themes, on the basis of the analyses we have conducted (in the old town and the surrounding farmland) and the surveys administered to the inhabitants of the place, we have defined a number of interventions for urban and private development projects. We have also proposed specific objectives for landmark buildings. Each of these projects have been evaluated also in terms of economic viability.

The proposed strategy is neither perfect nor the only one possible when it comes to tackling the reality of the old town of Poggioreale. It is however, the result of skills and expertise from different fields, which underscores the importance of a multidisciplinary approach to the reconstruction of a city. Finally, we believe that this type of strategic approach, with the necessary adjustments to specific and different situations, can be a starting point to find new solutions to the now global phenomenon of small or marginal villages.

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References

- Beatley, T. and P. Newman, (2013). Biophilic Cities Are Sustainable, *Resilient Cities, Sustainability* 2013, 5, 3328-3345.
- Benincasa, C. (1978). *Architettura come dis-identità. Teoria delle catastrofi e architettura*, Dedalo, Bari.
- Bocchi, R. (2009). *Progettare lo spazio e il movimento. Scritti scelti di arte, architettura e paesaggio*, Gangemi, Roma.
- Caldo, C. (1975). *Sottosviluppo e terremoto. La valle del Belice*, Palermo, Manfredi.
- Calvino, I. (1978). *La città abbandonata*, [http://copioni.corrierespettacolo.it/wp-content/uploads/2016/12/CALVINO%20Italo_La%20citt%C3%A0%20abbandonata_null_U\(2\)-D\(3\)_Unavailable_1a.pdf](http://copioni.corrierespettacolo.it/wp-content/uploads/2016/12/CALVINO%20Italo_La%20citt%C3%A0%20abbandonata_null_U(2)-D(3)_Unavailable_1a.pdf).
- Campo, G. (2007). *Nella città d'utopia. Scritti per Catania (1992-1993 e 1997-2001)*, Bonanno-Lombardi editori, Siracusa.
- Cannarozzo, T. (2009). *Rapporto di una periferia territoriale: la Valle del Belice (1968-2008)*, in antiTheSi.info, 2009.
- Choay, F. (1995). *L'allegoria del patrimonio*, Officina Edizioni, Roma
- Ciaravella, F. (2013). *L'intimo nella memoria dello spazio pubblico: due progetti d'arte per Salvitelle*, in Fabietti, V., C. Giannino and M. Sepe (Editors), *La ricostruzione dopo una catastrofe: da spazio in attesa a spazio pubblico*, Proceeding Workshop Biennale Spazio Pubblico 2013, Dossier 005 Rivista monografica online, INU Edizioni.
- Criconia, A. (Editor) (1998). *Figure della demolizione. Il carattere instabile della città contemporanea*, Costa & Nolan, Genova-Milano.
- Cucinella, M. (2018). *Arcipelago Italia. Progetti per il futuro dei territori interni del Paese*. Padiglione Italia alla Biennale Architettura 2018, Quodlibet, Roma.
- Dall'Ara, G. and Morandi, F. (Editors) (2010). *Il Turismo nei Borghi, la normativa, il marketing e i casi di eccellenza*, Nuova Giuridica, Matelica.
- De Rossi, A. (Editor) (2018). *Riabitare l'Italia. Le aree interne tra abbandoni e riconquiste*, Donzelli, Roma.
- Decandia, L. and L. Lutzoni, L. (2016). *La strada che parla. Dispositivi per ripensare il futuro delle aree interne in una nuova dimensione urbana*, Franco Angeli, Milano.
- Fabbricatti, K. (2013). *Le sfide della città interculturale. L'approccio della resilienza per il governo dei cambiamenti*, Franco Angeli, Milano.
- Fabro, S. (1985). *La ricostruzione del Friuli*, Cooperativa il Campo, Udine.
- Fiore, P., G. Donnaruma and C. Sicignano (2017). *Refurbishment vs. demolition and reconstruction: analysis and evaluation in order to choose the intervention*, Colloqui. AT.e 2017 Demolition or deconstruction? At: Ancona

- (Italy),
https://www.researchgate.net/publication/324497826_Refurbishment_vs_demolition_and_reconstruction_analysis_and_evaluation_in_order_to_choose_the_intervention.
- Gallitano, G., F. Lotta, M. Picone and F. Schilleci (2017). Ricostruzione post-terremoto e identità nuove. I cinquant'anni della comunità belicina, in Moccia, F. D. and M. Sepe, (Eds), 10° INU STUDY DAY "Crisis and rebirth of Cities", 272 s.i., INU edizioni, 163-167.
- Guidoboni, E. and G. Valensise (2011). Il peso economico e sociale dei disastri sismici in Italia negli ultimi 150 anni, Bononia University Press, Bologna, 552.
- Ianni, P. (2013). Il dopo-terremoto aquilano: rischi e potenzialità di una ricostruzione "figlia di questo tempo", in Fabietti, V., C. Giannino and M. Sepe M (Eds), La ricostruzione dopo una catastrofe: da spazio in attesa a spazio pubblico, Proceedings Workshop Biennale Spazio Pubblico, 2013, Dossier 005 Rivista monografica online, INU Edizioni.
- Ianni, P. A. (2016), The importance of the historical city in Italy: cultural changes by reading the post-seismic reconstruction processes in the last fifty years, *Ciudades*, 19, <https://dialnet-IlValoreDellaCittaStoricaInItalia-5578178.pdf>.
- Kroll, L. (1999). Tutto è paesaggio, Testo&Immagine, Torino.
- La Ferla, M. (2004). Te la do io Brasilia. La ricostruzione incompiuta di Gibellina nel racconto di un giornalista-detective, Nuovi Equilibri, Viterbo.
- Abe, M. and R. Shaw (2014). Community Resilience After Chuetsu Earthquake in 2004: extinction or Relocation? in Shaw, R. (Editor). Community Practices for Disaster Risk Reduction in Japan, Springer, 191–208.
- Margani, L. (1995). Materiali, tecniche e tipi costruttivi della ricostruzione settecentesca nella Sicilia orientale, in Sanfilippo, D. and P. La Greca (Eds), Piano e progetto nelle aree a rischio sismico. Planning and design in seismic risk areas, Gangemi, Roma.
- Mumford, L. (1994). La città nella storia, Bompiani, Milano.
- Navarra, M. (2017). Terre fragili. Architettura e catastrofe, LetteraVentidue, Siracusa.
- Parrinello, G. (2015). Belice 1968: istituzioni, territorio, memorie, in Salvati, M. and L. Sciolla (Eds), L'Italia e le sue regioni: istituzioni, territori, culture, società, Istituto dell'Enciclopedia Italiana Treccani, 3: Culture, 403-418.
- Pinzello, I., L. Canale, A. Giampino, M. L. Scaduto and V. Todaro V. (2012). Pianificazione e ricostruzione. Opportunità e strategie per il rilancio della Valle del Belice, in Atti della XV Conferenza Nazionale SIU. L'urbanistica che cambia. Rischi e valori. Pescara, 10-11 maggio 2012, https://issuu.com/planumnet/docs/xv_conferenza_siu_by_planum_n.25-2012_atelier_4?printButtonEnabled=false&backgroundColor=%2523222222.
- Provenzano, I. A. and F. Lo Piccolo (1995). La ricostruzione del Val di Noto e città nuove di Sicilia: le trasformazioni del paesaggio urbano e rurale, in Sanfilippo, D. and P. La Greca (Editors), Piano e progetto nelle aree a rischio sismico. Planning and design in seismic risk areas, Gangemi, Roma.
- Sapienza, V. (2010). La colonizzazione del latifondo siciliano. Esiti e possibili sviluppi, Lussografica, Caltanissetta.
- Seneca, L. A. (2004). Questioni naturali, BUR, Milano.
- Settis, S. (2014). Se Venezia muore, Einaudi, Torino.
- Tagliabue F. Volonté and N. Bassoli (2016). Stem procedure. Strategie di rigenerazione post sisma, Maggioli, Rimini.
- Zevi, B. (1994). Architettura concetti di una contro storia, Newton Compton, Roma.
- Zevi, B. (1995). Controstoria dell'architettura in Italia. Paesaggi e città, Newton Compton, Roma.
- Zhao, B., Taucer, F. and T. Rossetto, T. (2009). Field investigation on the performance of building structures during the 12 May 2008 Wenchuan earthquake in China, *Engi. Struct.* 31 (8), 1707–1723.

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